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Contents

Redefining education: the convergence of liberal arts and career school education

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Keywords
Automation, AI Technology, Convergence, Education, Skill Demand

Abstract

Progressive companies maneuvering in today's complex global market have adopted the entrepreneurial pivot-and-turn approach to be agile in the constant flux and change environment of disruptive AI advances. These businesses understand that current, and future, technology advances require a new workforce skill based on confluence, interconnectivity, cross-functionalism, channel integration and 21st century task specific expertise.

The case study of VMCAD College presents its Convergence Plan as a response to the changing 21st century business environment and the need for a cross-functional education experience. The 4 layers of VMCAD's Convergence Plan are: The Convergence of Business and Art, The Convergent Partnership between the Design Industry and VMCAD Academics, The Convergence of Sequential Learning with Holistic Learning, and The Convergence of General Education Requirements with Everything. Each layer is designed to be interactive with today's real world skill expectations which demand the drill-down focus of purpose and applicability found in career school learning with the big-picture, holistic, creative synthesis thinking of a liberal arts education.

1. Introduction

The ubiquitous use of technology in the 21st century has dramatically changed requisite job skills needed for the business and industry world. Technology, specifically AI, has accelerated the speed of change in business, escalated competiveness in the global market, intensified business model complexities, and erased lines between workplace knowledge domains. Automation is changing the business environment as quickly as globalization.

2. Disruption and Transformation

Concerns about social and economic disturbances created by the newest wave of 21st century advances in technology are old as Brunelleschi's machines and the Luddite Movement. Today, the crude protest language of the 1811-16 Luddite riots has been replaced by the more eloquent, academic language found in the seminal 1999 treatise The Division of Labor, by Richard Murnane of Harvard University and Frank Levy of MIT.

For the past 18 years the premise, analysis, and predictions of The Division of Labor have influenced writings about automation's social, economic, and educational disruptions. Governmental and educational institutions have adopted Murnane's and Levy's cause and effect analysis of automation. There is the Bologna Process and European Higher Education summits from 2001 through 2009, The Center for Public Education's *Defining A 21st Century Education* by CD Jerald in 2009, Oxford University's 2013 *The Future of Employment: How Susceptible Are Jobs To Computerization?*, and *Harvard Business Review's* 2017 series of articles and webinars on the future of jobs and automation. The revolution of technology, automation, and computerization, and its economic and educational disruptions, has become institutional, conventional, and bureaucratic.

Progressive companies, like Sapient Razorfish (an international digital transformation agency), pay little attention to these bureaucratic codifications of a revolution. They understand that the institutional systemization of the ongoing revolution ignore last month's AI advances and tomorrow's AI innovations. Sapient Razorfish's *AI Value Pyramid* purposefully avoids the departmentalization of the Bologna Process' *Knowledge Triangle*. The entrepreneurial pivot-and-turn approach of Sapient Razorfish's *AI Value Pyramid* provides agility and perpetual movement in an environment of technology disruption and transformation (Lord and Velez, 2013).

Sapient Razorfish, and other progressive companies, understand today's technology no longer just serves business. It defines business. Most importantly, they understand current technology advances have created a new workforce skill need. It is the holistic, big picture, creative synthesis (the top tier of Bloom's Taxonomy), everything is connected, systems thinking skill set of the Solution Architect, Innovation Engineer, and Information Designer. Big picture, holistic thinking is needed to create, organize, and implement strategies which will pivot and turn around the seeming chaos of technology's disruptions.

Computer program algorithms used to create AI are decreasing the need for standard linear and sequential thinking careers. Almost any routine and predictable thinking task can be automated by code. ATMs, TurboTax, Divorce.com, Soundrop.com, and E-discover have automated routine data collection tasks into pattern recognition algorithms. The most recent, and startling, AI advances are in the medical field. AI is now capable of reading CAT scans and radiology reports with 50% greater accuracy than humans. A 2016 special edition report of *The Economist* on automation and future careers says AI is "blind to the color of your collar" (Morgenstein, 2016).

The current acceleration in social network platforms, mobile applications and devices, the Cloud, nanotechnology, biotechnology, Green/Sustainable technology, and data-mining are clear indicators of Kurzweil's Law of Accelerating Returns and the exponential spike of AI/digital technology. The new constant in business is the ever increasing acceleration of technology disruption.

There is a common saying in the business world, 'Every company is a technology company and, every industry is fundamentally changed by technology.' Today, the global marketplace is driven by technology's Holy Grail capacity to unlock revenue streams while improving efficiency. Business articles from *Harvard Business Review* to *Mashable.com* to *FastCompany.com* to *The Wall Street Journal* all provide similar heuristics and rules to handle the disruptive transformation of AI/digital technology on 21st century business. Growth and profit, they all write, is dependent on an agility to converge AI's extraordinary data-mining capabilities with innovative software coding.

3. Convergence

Digital technology and AI systems have exponentially-upon-the-exponential increased the amount of raw data available to business. However, all the raw data stored in the Cloud and, all the core mining techniques (decision trees, neural networks, collaborative filtering, association rules, pattern analysis, affinity analysis, and a host of others) to extract insight and create value from the data, go nowhere if coding algorithms don't create functional software to increase consumer interaction and product development (Linoff and Berry, 2011).

Amazon converges data-mining and coding better than most. This is most evident in the newly launched Amazon Go convenience/grocery stores. Cameras and sensors powered by AI allow customers to walk into a store, pick up items, walk out, and be automatically charged through an app on their smart phone. AI Sensors and digital communication converge to create a new source of information to track consumer behavior. Pattern analysis of consumer behavior converges with automated feedback mechanisms to create new business models. And the Internet of Things converges with everything.

In the past decade, thousands of books and millions of pages have been written to express the necessity of convergence in an age of AI/digital technology disruption. Yet, humans are so adept at departmentalizing, siloing, and isolating information into bits and pieces. The human tendency to separate information into categories is older than encyclopedias. It is, in fact, old as humanity itself. The taking of disparate items and separating them into categories is fundamentally easier than converging them into something new. The focus on one thing is fundamentally easier than seeing many things converge into a big-picture.

The irony of this is human brains are wired to converge, not separate. Recent neuroscience studies (enabled by AI/digital technology) have proven it. The left brain, right brain, parietal lobes, temporal lobes, occipital lobes, frontal lobes, the limbic system and the brain stem all converge information. Separate and distinct areas of the brain do not stay as separate and distinct areas. The corpus callosum and 86 billion neurons produce a mega convergence fulfillment center neural network called the Connectome. Even more amazing is neural growth and neural synaptic interfacing expands with use (Seung, 2012).

The capacity of the human brain to converge bits and pieces of information to create new ideas has an exponential curve which can compete with Kurzweil's graph. Of course, the ability to acquire the capacity has to be taught.

4. VMCAD Case Study

Fifty-two years ago, VMCAD College was established as a two year, associate degree career school. In 2015 a new president initiated plans to converge the drill-down career school mind-set with the drill-up liberal arts perspective. VMCAD's Convergence Plan began with procuring BFA and BS degrees for its Fashion Design, Fashion Merchandising, Graphic Design, and Interior Design programs. Additional BS degree granting programs in Art and Design Management and Fashion Marketing were added to the College's curricula.

The premise of VMCAD's Convergence Plan was audaciously simple. It looked outside of the educational arena to find a new pedagogical pattern. The College focused on two areas as strategic models for the "pathway" development of its Convergence Plan. The first was the transformation of 21st century business due to the continual disruption of AI/digital technology advances. The business operation reality of continuous innovation (due to today's accelerated technology advances), and the cross-functional exchange of ideas and information between a business organization's separate departments, became a strategic model for the College's curricula development. Advances in neuroscience became the College's second "pathway." Recent neuroscience research has proven the brain functions as a connective network rather than departmentalized, siloed regions. The 86 billion neurons and their estimated 700 trillion synaptic connections converge every region of the brain into an amazing web of interconnective entanglement (Feldman Barrett, 2018). These two models provided the College its Convergence Plan, which then redefined the content and context of its curricula development.

The 4 layers of VMCAD's Convergence Plan are: The Convergence of Business and Art, The Convergent Partnership between the Design Industry and VMCAD Academics, The Convergence of Sequential Learning with Holistic Learning, and The Convergence of General Education Requirements with Everything.

The first layer of VMCAD's Convergence Plan (The Convergence of Business and Art) forms the foundation of its mission: "We strive to create a learning environment where both the creative and business sides of the design and art industry converge. We provide aspiring artists and designers a strong foundation in business and enterprise which enables them to successfully establish their own business opportunities and launch their own enterprises. Likewise, we provide future managers of creative industries with a strong foundation in art and design so they can effectively inspire, motivate, and guide their creative teams and cultivate innovative thought."

The importance of VMCAD's second layer (The Convergent Partnership between the Design Industry and VMCAD Academics) is, curriculum development advice from the industry provides curriculum relevance for student internships and employment. The design industry becomes a shareholder in the pedagogical process and thereby a willing employer.

The third layer (The Convergence of Sequential Learning with Holistic Learning) pertains to each of the Academic Programs at VMCAD: Graphic Design, Fashion, Art and Design Management, and Interior Design. This layer is an "omnichannel" inspired implementation of today's business use of AI/digital technology, which expands beyond a single experience perception. The drill-down career school learning in each VMCAD Program is accompanied by the drill-up big-picture awareness of "omnichannel" purposing: the exploration of products/knowledge in one area should be transferable to another domain for universal relevance; and, the exchange of data/knowledge is to enable acquisition of other data/knowledge to expand its value.

The final layer (The Convergence of General Education Requirements with Everything) is a Stephen Hawking approach. Math, science, social science, history, English, philosophy, and humanities actually do converge in the real world. Students need to see the convergence in the classroom. This has an epistemological purpose: seeing convergence brings about a knowledge of convergence and, an ability to implement convergence. This is best exemplified by lectures in VMCAD's History of Art II course. For example, the lecture on Gothic cathedrals is expanded beyond than architectural structures of a time period. Through the process of convergence, and "omnichannel" purposing, the complexity of Gothic cathedrals is related to Systems Thinking which expands into immunotherapy cancer drugs and further expands into the Second Law of Thermodynamics.

5. Conclusion

The 21st century has shown there is no stand-alone of anything. In fact, today's business practices, neuroscience, omnichannel purposing, and AI show the connectivity of everything. Education needs to implement, through practical application, the transformative and disruptive nature of convergence.

References

Barrett Feldman, Lisa. 2018. How Emotions Are Made: The Secret Life of the Brain. Houghton Miffflin Harcourt. Boston, New York

Gordon S. Linoff and Michael J.A. Berry. 2011 Data Mining Techniques for Marketing, Sales and Customer Relationship Manager. Indianapolis, Wiley Publishing.

Lord W. Bob and Velez, Ray. 2013. Converge: Transforming Business at the Intersection of Marketing and Technology. Hoboken, New Jersey: John Wiley and Sons, Inc.

Morgenstern, Michael. 2016 "Automation and Anxiety," *The Economist*. Retrieved from https://www.economist.com/news/special-report/21700758-will-smarter-machines-cause-mass-unemployment-automation-and-anxiety.

Sebastian Seung. 2012. Connectome, Houghton Mifflin Harcourt.Boston, New York.

Creating shared value through big-data analytics: a conceptual treatise on sustainability presence

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Key Words
Sustainability presence; shared value; big-data analytics; Finance – Operations – Marketing – Supply Chain (F-O-M-S); Disaster resilient infrastructure; Sustainable Consumption and Production; Good governance embedded Low Carbon Financing for Sustainability.

Abstract
The objective of this study is to review and create a frame of reference for the creation of shared value through big-data analytics that sets sustainability presence (Hampton et al. 2013; Schwab, 2017)). Big Data Analytics is a prosaism to cope with challenges of over consumption, unharnessed growth and waste proliferation. Businesses and retail services incorporate transformation to endure and cope with challenges (ur Rehman, Chang, Batool & Wah, 2016). This paper posits the concept of sustainability presence through big-data analytics. Sustainability presence is an ambiance, an aura, an emanation that has overarching connect on finance, marketing and operations & supply chain realms. The role of analytics is to scaffold big-data emanating from F-O-M-S, Finance-Operations-Marketing-Supply-chain. Big-data analytics creates an inter-connect among F-O-M-S (Dubey, Gunasekaran, Childe, Papadopoulos, Luo, Wamba & Roubaud, 2017). Outcomes of this research is to root for the creation of sustainability presence from all arms of business to speed up the creation of value real-time, thereby harnessing the power of big-data analytics. Interim results indicate the ease of transform from marketing to Sustainable Consumption & Production, Operations & Supply Chain empowering Disaster Resilient Infrastructure, and Finance enabling Good Governance embedded Low Carbon Financing for sustainability.

A VAR evaluation of classical growth theory*

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Keywords
Classical Growth Theory, Demographic Transition, Malthusian Trap, Unified Growth Theory, Vectorautoregression

Abstract

Over the past two decades, there have been numerous attempts in economic theory to model the historical regime of a Malthusian trap as well as the transition to growth in one coherent framework, or in other words, a unified growth theory. However, in most of these models, an important effect suggested by Malthus has been frequently omitted. By including what he had called "the great preventive check" in the traditional Malthusian model which is based on the principle of population, the principle of diminishing returns and the principle of labour division, the transition can be modelled in a very simple dynamic macroeconomic framework.

The aim of this paper is to first construct and calibrate the suggested classical model and to eventually employ a conventional VAR-Method to provide evidence of the above principles using country-specific annual historical data on crude birth rate, crude death rate and GDP per capita growth rate. As a result, it is argued that emerging economies follow a universal macroeconomic pattern of development. A decreasing death rate is succeeded by a decreasing birth rate which at the same time induces GDP per capita to rise sustainably. The correspondingly advanced microeconomic theory suggests that increasing life expectancy tends to create a demographic structure that is much less prone to overpopulation. This reduction of mortality will certainly raise the population pressure on the upcoming generation for some time and correspondingly increase poverty. However, so far no instance has been observed in which decreasing fertility and increasing GDP per capita was not preceded by such a transitional period

* *I would like to thank Uwe Hassler for valuable methodological support as well as Volker Caspari, Guenther Rehme and Bertram Schefold for very helpful theoretical comments. Besides, I am greatly indebted to Heinrich Ursprung and Ralf Brueggemann for their decisively inspiring suggestions.*

An economic investigation of risk management and governance systems in microfinance institutions

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Keywords
Governance, Risk Management and Portfolio Management.

Abstract

From the onset, one of the most leading factor posing a high risk in management of a microfinance is failure to have proper governance systems in place. This paper investigates the variables that best explain management of risks basing on the governance systems perspective in microfinance institutions. The methodology adopted was an explanatory and survey research design. The data was gathered from questionnaires that were distributed to 114 participants drawn from 50 MFIs. Data was also extracted from published sources of Bank of Uganda annual reports and Uganda Bureau of Statistics.

The study makes use of Principle Component Analysis (CPA) to identify variables that best explain the governance of MFIs basing on orthonormal loadings and Eigen values, and conclusion on each variable was drawn basing on mean values of descriptive statistical analysis. the study has revealed that effective management of risks in a MFI cannot be precisely explained by one variable in the governance but one has to consider a number of actors within the governance systems that couldn't be overlooked. Under governance the focus should be on board selection basing on the procedure taken to select the board, periodical evaluation of loan officer's performance, the process of decision making, predefined board roles, management style that is transparent, the character of manager in terms of managing human resources, manager that respects employees which is so paramount and board performance in terms of service delivery, controls and strategic issues that address the needs of a financial Institution.

Introduction

In Uganda, Micro Finance Institutions (MFI) came into being to bring financial services to people who have been excluded by big financial institutions because of lack of collateral security. The sole aim of the MFIs is to extend credit to under privileged group. The government of Uganda is using MFIs as agents of its program "*Prosperity for All*". In order for these MFIs to survive, to fulfil their obligations properly and to flourish in a robust business environment, they have to manage risks effectively. One indicator of the performance of a MFI is its financial sustainability on how well can the institution meet its financial obligations like meeting its clients' demand on credit facility (Buwule, 2011).

Besides financial sustainability MFI should also focus on risk management as this has received much attention in both developed and developing countries as a result of the increasing recognition that a firm's corporate governance affects its ability to access long- term, low- cost investment capital (Organization for Economic Co-operation and Development [OECD], 2004). According to the Financial Institution Regulation, 2005, "Institutional governance means the process and structure used to direct and manage the business and affairs of a financial institution with the objective of ensuring its safety, soundness and enhancing of shareholder value, and shall cover the overall environment in which the financial institution operates, comprising a system of checks and balances which promotes a healthy balancing of risk and return.

Not only that MFIs are still facing a problem lack of proper governance systems and these revolve around four core principles, i.e. fairness, accountability, responsibility and transparency. Specific challenges of upholding these principles depend on the ownership structure of the corporate sector because challenges can be easily mitigated if their systems within an institution to be followed. In recent years, corporate governance has received increased attention because of high- profile scandals involving abuse of corporate power and in some cases alleged criminal activity by corporate officers. An integral part of an effective corporate governance regime includes provisions for civil or criminal prosecution of individuals who conduct unethical or illegal acts in the name of the enterprise (http://www.businessdictionary.com).

Literature review

Organization Systems

In order to have a clear understanding of governance in MFIs, there is need to recall one of the renowned organization systems like Ludwig von Bertalanffy's systems theory (1969) which asserts that an organization is a combination of components that are interrelated and continued to state that in order to understand an organization as a whole we must know both the parts as well as relations between as cited in Chandra (2005). Ludwig's systems theory idea was propagated through his publication of "General Systems Theory" in 1969.

This systems theory was based on the ideas of Chester I Barnard (1938) affirms that an organization is characterized with cooperative system; he defines such a cooperative system as a complex of physical, biological, personal and social components which are in specific, systematic relationship by a reason of cooperation of two or more persons for at least one definite end (Barnard, 1938) cited in (Chandra, 2005). Based on these ideas, a system may be looked at as an orderly grouping of separate but inter dependent components for purpose of attaining some pre- determined objective. This reveals that every individual within institutions has a special part in the management of the risk associated with institutional asset portfolios.

Besides that, all organizations transform input into output. In the case of MFIs, the inputs may be information on applicants for loans, and by applying certain conversion processes, these inputs can be transformed into outputs of loans, services and information. In the process of conversion, the organization must take in to consideration the dynamics of the outside environment and must continually interact with both the internal variable and external variables in this case loans. Therefore, this can only be achieved if at all there proper systems of governance in the first place to be followed, the following section presents a review of the related literature on the governance systems in organization.

Microfinance Governance

Economists have tried to define corporate governance in different ways in the 21st century. According to the OECD Secretariat (2004), corporate governance refers to the way in which an organization is directed and controlled, including the mechanisms, processes and relations. The wise stewardship of the firm's total portfolio of assets and resources, with the objective of maintaining and increasing stakeholders' value, is the cornerstone of corporate governance. Corporate governance further focuses on building a system by which businesses are managed by different participants in the corporation, such as the board, managers, shareholders and other stakeholders. Meredith and Clough (2008) contend that corporate governance entails a relationship between corporation and stakeholders in the private sector, but in fact corporate governance is required in every business entity, be it private or public, for the business to be run in an ethical manner.

According to Itzhak (1998), corporate governance is a multi-dimensional aspect of authority that covers the political set-up of formal and informal institutions for efficiency, effectiveness and accountability. The aim is to achieve sustainable development, personal freedom and the welfare of the population, through an emphasis on planning and resource allocation. Ledgerwood and White

(2006) see corporate governance as a system of checks and balances, in terms of which a board of directors is established to oversee the management of the MFI. According to Otero and Chu (2002), governance is:

> *"the process by which a board of directors, through management, guides an institution in the fulfilment of its corporate mission and protects the institution's assets over the course of time. The board of directors provides oversight, gives direction to managers of the institution, and carries out its functions on behalf of the third party. Shareholders constitute the third party in a profit corporation; in a non-profit making corporation, the third party is not as easily defined because they are not owners and can include clients, staff, donors and government".*

MFIs should address the governance systems in order to minimize risks associated with finance loss, asset mismanagement and loss of reputation from the public as Otero and Chu (2002) argue that governance has assumed increasing importance in microfinance, because as MFIs grow in their outreach, the size of their assets (measured by their loan portfolio) also grows to a considerable size. Ensuring effective management of this growth requires added input and involvement on the part of the board so as to minimize risks associated with over-expanding. Therefore, building a public image can be enhance if at all MFIs can adopt the measures as laid down in King III report (2009) which defines the roles of the board which helps in shaping the governing body of an institution in achieving its long-term goals. The section below presents a review of risk management in MFIs

Risk Management in MFIs

Management of risks is a very important aspect for the survival and effective management of business enterprises in Uganda. Coleman (2011), state that *"Risk management is the art of using lessons from the past in order to mitigate misfortunes and exploit future opportunities, in other words the art of avoiding mistakes of yesterday while recognizing that nature can always create new ways for things to go wrong"*. The recognition that risk management is fundamentally about communicating risk upwards from the line managers to the top management of the MFIs. In most financial firms, different risks are managed by different departments requiring very different metrics. However, there must be a comprehensive and transparent aggregation of risks and an ability to disaggregate and drill down through an effective communication to the lower level managers. As Coleman et al (2007), points out that, *"Consistency and transparency in this process are key requirements. It is essential that all risk takers and risk managers speak the same language when describing and understanding their risks".* This will act as a driving force to mitigate risks in financial institutions.

Therefore, risk management is about taking advantage of opportunities: "controlling the downside factors like using institutional assets for personal gains at the expense of the institution and exploiting the upside through extending credit to those in need. There for the success of any MFI is putting into consideration of how to effectively manage risk and at the same time increase performance as many MFI in Uganda have been pushed out of business solely due to poor management of risks for instance, clients at the former Teffe Trust MFI could take loans without valid collateral security.

Furthermore, Feed the Children Uganda, too has of recently closed its doors because it incurred huge losses when its clients failed to pay back the loan extended to them. Some had provided collateral security in form household items like chairs, cups animals etc, which could not yield any return. Some clients moreover threatened loan officers with death, if they do not lend them money. By the closure of 2014 financial year over 10 MFIs have closed due to poor management of risks leading to increased debt to equity ratio UBS (2014). All these risks of failure to recover the loans would have been mitigated if at all there was proper governance systems in place

Studies to date have examined various risk management basing on large financial institutions (Aspacks et al, 2005, Anas and Mounira, Vodova 2011, Chickoko 2012,). All these studies focused on commercial banks liquidity management and in particular to large financial institutions and most of them are in advanced economies only after the financial crisis. The current study examines portfolio management amidst high risks of failure to pay back the loan and mismanagement of MFIs resources and emphasis is put on having governance systems in place.

Besides risk management, Ogule (2005) in his article on the importance of promoting internal checks and balances to enhance corporate governance, states that effective corporate governance relies on interrelation and interaction of all checks and balances within an organization namely, internal controls, risk functions, policies and procedures, government and regulating agencies, audit and board independence which are a key issue management of MFIs.

Purpose of the study

The purpose of the current study is to identify and profile strategies of minimizing risks through proper management of MFIs portfolios, if they are to achieve their intended objectives. The various studies conducted focused on extension of credit to business enterprises and identified social-economic factors that affect loan repayment rate of rural households and Small and Medium Enterprises (SMEs). However, in the literature review, there is no indication of studies specific to governance and risk management in MFIs.

Research methodology

To be able to understand governance and risks management by MFIs in different operating environments, a highly structured approach is necessary. Accordingly, the researcher used explanatory and survey research designs. The study used an explanatory research design by using correlation analysis to estimate risks and to establish causal relationships between variables that best describes proper governance in MFIs whilst risk management strategies. An explanatory approach is considered appropriate because of its ability to study situations or problems in order to explain the relationship between variables (Creswell, 1994; Creswell, 2003).

At present, the majority of the microfinance institutions concentrate around Kampala metropolitan region located in the central of the country. The central region tends to hold the largest population in Uganda. The parent population comprised of participants from three categories of Microfinance institutions in Kampala and that is credit taking, Deposit taking and Credit taking and Deposit taking. The target population from the three categories of MFI included the administrative staff and credit officers and the members served by the MFIs.

Besides that, secondary data used in this research was obtained from reports, budget speeches and researches (surveys) from Bank of Uganda publication and Ministry of Finance, Planning and Economic Development (MFPED 2006). Another useful source of data was the National Bureau of Statistics Entebbe and World Bank offices in Kampala. From these sources, the researcher obtained tabulated information from their reports. Additional information was obtained from Association of Micro finance Institutions of Uganda (AMFIU 2009) publications. Internet based sources like online journals from Nelson Mandela University Library and various text books.

Lastly, a bulk of data used for analysis was obtained from various publications of MFIs. The researcher on several occasions held detailed telephone conversation (interview) with MFIs personnel to obtain more data from verbal expressions and responses to the questions posed. This technique provided more critical data that was missing in existing literature and other sources. It also helped the researcher to gain more insight and knowledge about the operation of the object of study.

Discussion of Findings

The researcher employed principle component analysis basing on Eigen values to identify variables above mean-scores and the nodes on the scree plot (ordered eigenvalues) denotes the total number of variables that best explain the governance basing on those above 1 mean score. Furthermore, the orthonormal loadings display of the variables is employed in order to identify the names of variables above 1mean score. The analysis is based on Governance and Risk Management.

Governance is the first dimension that relates to selection of the board, board decision, board roles, management style, and board performance basing on services, controls and strategy and risk management dimension focused on, collateral security, Management Information Systems (MIS), and loan repayment.

The following section presents the analysis of variables that explains governance in the MFIs basing on principle component analysis (PCA). The table below shows the total number of variables that were observed under governance using Principle Component Analysis (PCA) to ascertain the crucial areas MFIs should put emphasis as a way of mitigating risks.
The researcher used the orthonormal loadings to identify the names of the variables that best explain the criteria for selecting the board. The variables identified are Board_ Bank on (Someone whom the institution can bank on and is professional), Board _Shrewd (A person knowledgeable), Board_ Track (values and integrity) and Board_ Inst (owns shares in the institution).

Eigen values and orthonormal loadings on governance dimension

Board Selection

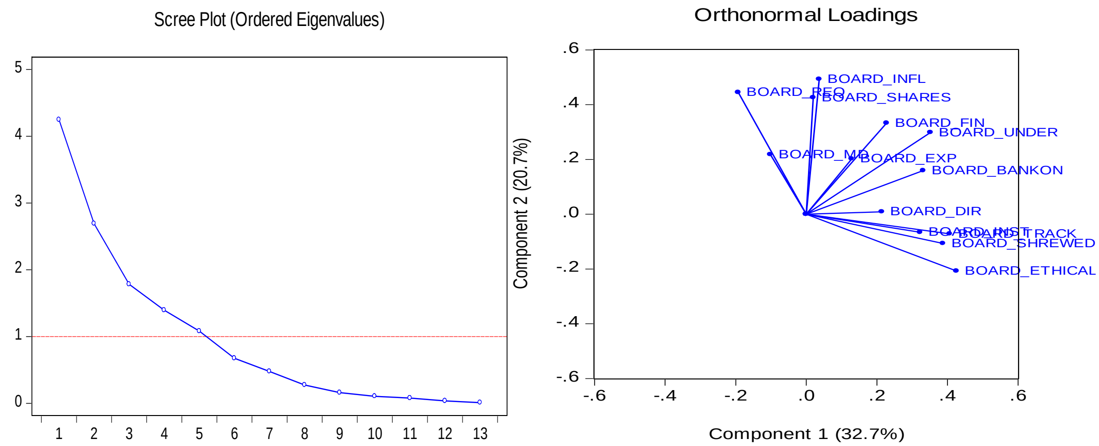

Figure 1: Board Selection

The above diagram shows that under board selection, a number of variables were investigated over 13 under this criterion but the screen plot showed 5 variables were identified as the strongest point of emphasis on board selection and last the names of the variables are displayed using orthonormal loadings.

Loan officer performance

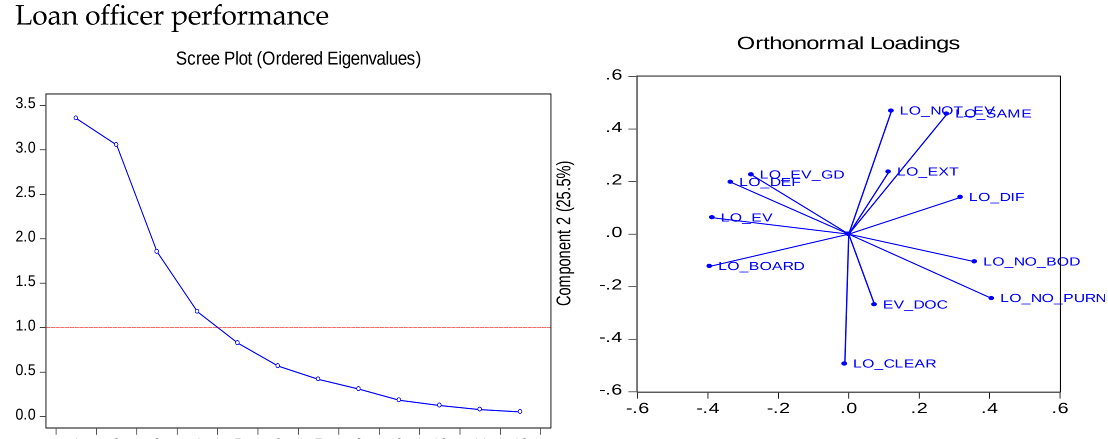

Figure 2: Loan officer performance

Under loan officer performance only 4 variables were identified as the one that best describes loan officer performance.

Board Decision

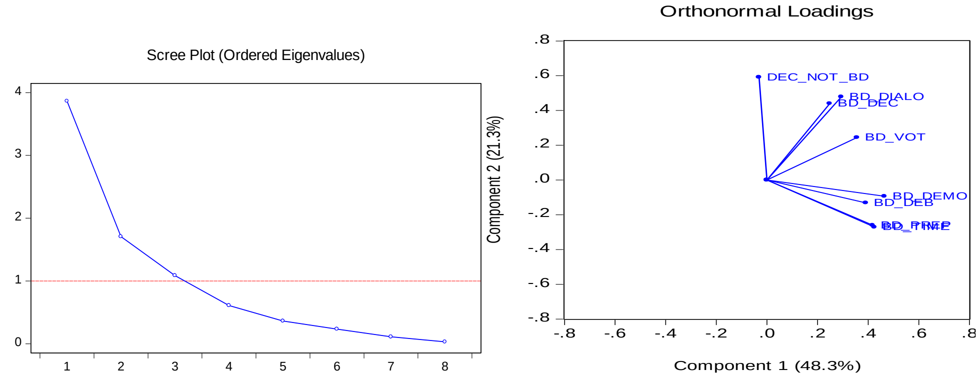

Figure 3: Board Decision

For the purposes of having an effective decision making in MFI, there was need to investigate more in board decision and basing on the above diagram, 3 variables were identified as the best practice of decision making in MFIs

Board Roles

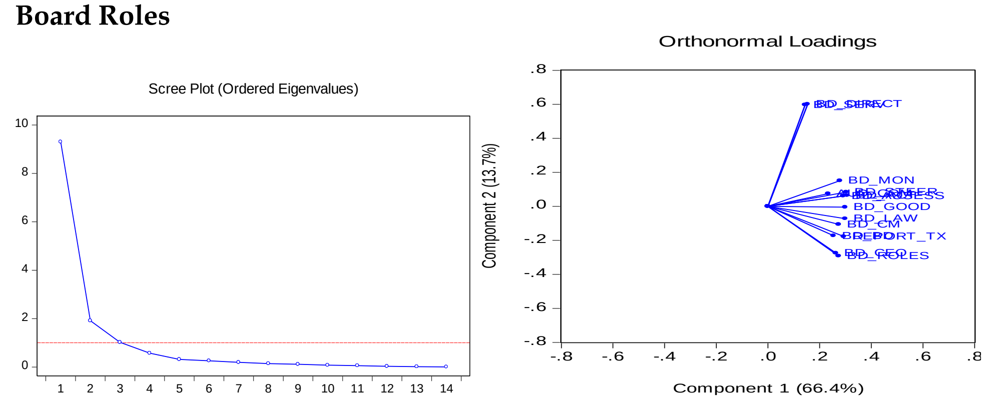

Figure 4: Board Roles

The respondents were asked to give their subjective views regarding board roles in their institutions and basing on the principle component analysis 3 variables were identified and these are Bd_ Roles (Roles of the board members defined), Report_tx (Filing tax returns), and Bd_ Assess (Assessment of top managers). Proper management of MFIs can only be enhanced when there is some clear defined roles of the board and the above diagram depicts 2 variables that best describes board roles out of 10 that were examined.

Management style

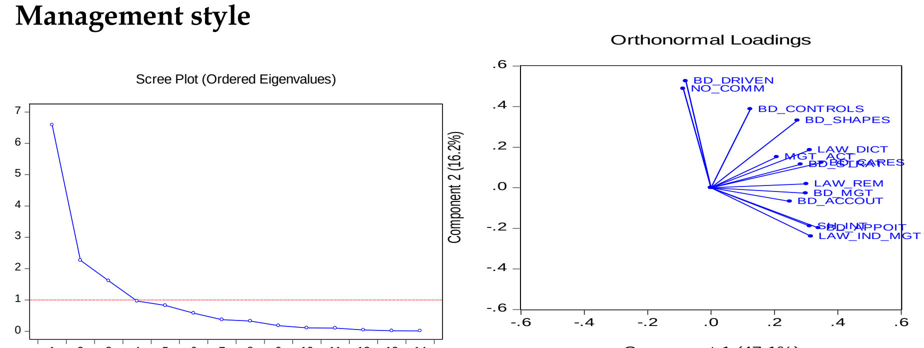

Figure 5: Management style

The subjective views of the respondents regarding management style whether it best explains governance within the MFIs. In this regard 4 variables were identified and the variables include the following Bd_Appoit (Board effectively monitors management), Bd_Mgt (Use of management committees), Bd_Cares (Strategies are implemented as planned) and Bd_Mentor (Mentoring and coaching managers).Board performance

Service

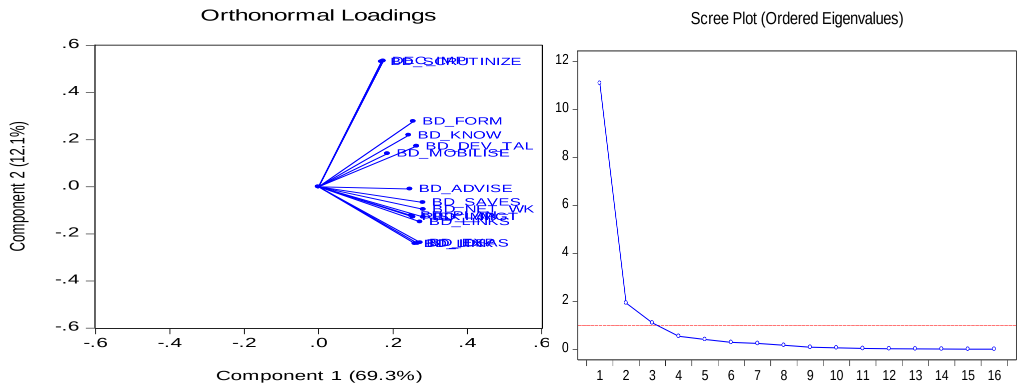

Figure 5: Service

Under this attribute in figure 5 above, there are 3 variables that explain the board performance; they are categorized under service, control and strategy. The analysis as per each category is presented in the following sections

Control

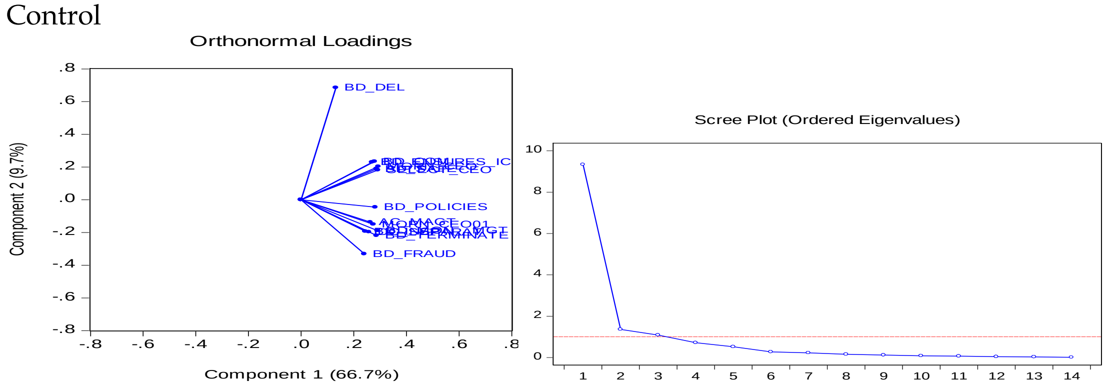

Figure 6: Control

Board control curtails on safeguarding the interest of the shareholders and the institution at large, therefore basing on the PCA, 3 variables were identified from 15 observations. they are Bd_Policies (Internal control procedures), Bd_Terminate (Monitoring Management), Bd_Mon_Mgt (Avoiding fraud).

Strategy

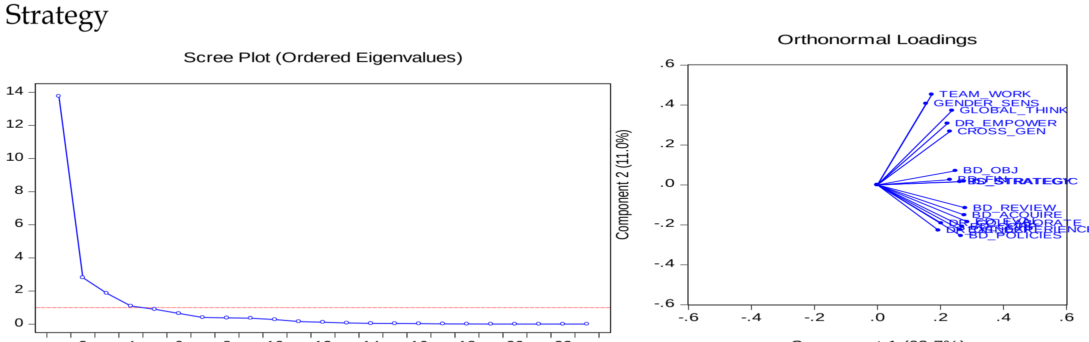

Figure 7: Strategy

This variable relates to the various strategies employed by the board to effectively manage the institution and according to the PCA out of the 23 observations 4 variables were identified as being the one that best describes the board strategies, the first 4 variables with values above 1 score were identified. The variables are Ed_Eval (Carrying out SWOT analysis), Bd_ Acquire (Acquisition of resources), Ext_Experience (Board experience) and lastly Bd_ Vision (Determining the vision and mission).

The table below shows that by employing descriptive statistical analysis basing on mean scores, the researcher has identified among the 29 variables identified by PCA on governance dimension, 19 variables on average have mean scores above 3 signifying good performance in that areas.

No.	Dimensions	Variables	Attributes	Mean scores < or = 3	Mean scores > 3
1	Governance	Board selection	Board_Bank On		3.807018*
			Board_Ethical		3.368421*
			Board_Inst	2.833333	
			Board_Shrewed	2.900901	
			Board_Track		3.464912*
		Loan officer performance	Lo_Dif	3.026316	
			Lo_No_Bod	1.675439	
			Lo_No_Purn	2.061404	
			Lo_Same	1.921053	
		Decision Making	Bd_Demo		3.254386*
			Bd_Init	3.000000	
			Bd_Style	3.000000	
		Board Roles	Bd_Assess		3.298246*
			Bd_Roles		3.333333*
			Report_Tx		3.438596*
		Management style	Bd_ Appoit		3.228070*
			Bd_ Cares		3.570175*
			Bd_ Mentor	2.763158	
			Bd_ Mgt	2.973684	
		Board performance-Services	Bd_Ideas		3.201754*
			Bd_Net_Wk		3.298246*
			Bd_Links		3.090909*
		Board performance-Control	Bd_Mon__Mgt		3.570175*
			Bd_Policies		3.473684*
			Bd_Terminate		3.649123*
		Board performance-Strategic	Bd_Acquire		3.175439*
			Bd_Vision		3.473684*
			Ed_Eval		3.157895*
			Ext_Experience		3.228070*

Table 1: Descriptive Statistics on Mean Scores of Variables Identified by PCA

Therefore, the strength of MFIs under governance is seen in the following areas;

The MFIs surveyed have strong board that is professionally ethical and knowledgeable in the area of managing financial institutions. They are performing better in the area of decision making, they do make timely decisions, and the board keeps on monitoring management and making sure that strategies agreed upon are properly implemented. The board is well committed in filing tax returns which is a legal requirement to all taxpaying institutions.

However, 10 variables showed sign of weakness because they have mean scores on average below 3. Management of MFIs need to strengthen its self in the area of allowing individual initiative in decision making, recognition of management committees in place, this smoothen the operations of the institution and lastly the board need to mentor the management, most of the personnel managing these institutions lack skills in managing the entity calling for immediate attention from the board to intervene.

The study revealed that in selecting the members of the board the directors of the institutions focus on a person whom management can rely on in case of difficulty, a person saves the institution and bears the knowledge about operations of financial institutions, someone who has ethical values and exercises professionalism in his way of conduct, a person who is knowledgeable in business affairs that will help to give constructive ideas that makes the organization move forward, a person with clean background in terms of values and integrity and lastly member who owns shares in the institution, it is revealed that owning shares in the institution is a sign of total commitment to that institution.

In general, the number of variables observed under the governance systems in MFIs were 131 however by employing the PCA the researcher was in position to come up with those that best explain the governance systems in MFI shows that 29 out of 131 variables were identified by the PCA that best describes governance, 17 out of 72 variables were extracted that best explain what is taking in place in human capital whilst 5 out of 24 variables were extracted in relation to risk management.

Furthermore, conclusions are drawn by employing descriptive statistical analysis basing on mean scores of the variables identified by the PCA. Therefore, out of the 29 variables identified by PCA on governance dimension, 19 variables on average have mean scores above 3 signifying good performance in that areas. Therefore, the strength of MFIs under governance is seen in the following areas;

The MFIs surveyed have strong board that is professionally ethical and knowledgeable in the area of managing financial institutions. They are performing better in the area of decision making, they do make timely decisions, and the board keeps on monitoring management and making sure that strategies agreed upon are properly implemented. The board is well committed in filing tax returns which is a legal requirement to all taxpaying institutions.

However, 10 variables showed sign of weakness because they have mean scores on average below 3. Management of MFIs need to strengthen its self in the area of allowing individual initiative in decision making, recognition of management committees in place, this smoothen the operations of the institution and lastly the board need to mentor the management, most of the personnel managing these institutions lack skills in managing the entity calling for immediate attention from the board to intervene.

On the side of human capital management, 17 variables identified by PCA, basing on their mean scores, 13 have mean scores above 3 showing good performance of MFIs. In this case the strength of MFIs lies in having educated human resources in place; MFIs gave the ability to exploit the available opportunities more especially targeting low income earners that for long have been neglected. However more is needed under human capital dimension more especially in those areas where on average mean scores was below 3 such as training programs where the respondents revealed that the type of training obtained does not match with the job requirements therefore they do not benefit from these programs.

There is still a lot of bureaucracy within the management that slows the operations of the MFIs. This is further explained by having directors commuting as loan officers. Failure to accept risk exposes the entire institution to a vague of collapse; risks have to be taken into account with possible strategies to mitigate them.

Conclusion

The study has revealed that the governance of an institution plays a big role in risk management. Institution fails because of lack of proper governance systems. In this research emphasis has been placed on key important issues like board performance, controls, strategy, management style, board roles and loan officer's performance.

MFIs are performing better in terms of governance and according to the subjective views of the respondents basing on PCA, 29 variables best described the governance of the MFIs but among these variables there is still a weakness related to the activities of loan officers, whereby they are not evaluated, no serious punishment in place for non-performing officers, most of them play a pivotal role of directors and at the same time loan officers.

MFIs need to strength the corporate governance principles especially on dimensions of board size, Gender diversity and timelines of delivering the financial reports to the regulators i.e. Association of microfinance Uganda and Bank of Uganda and presenting the details of loan Advances.

Microfinance institutions have got to establish mechanisms to enforce proper governance practices such as board composition which includes other elements like gender diversity and others. These will automatically build a bond of trust with their customers and stakeholders who are providers of capital to the institutions. Microfinance institutions operating in Uganda, like any form of business organisation in today's dynamic financial landscape should focus on proper governance practices and principles not only to boost and enhance their financial performances but as path to gaining a better public image, thus recognized by society in which the microfinance institutions operate as socially receptive microfinance institution which may augment the microfinance institutions operations and survival.

Areas for Further Research

Due to resource and time constraints some issues could not be studied and these constitute areas for further research. I therefore recommend further studies in the following:
Longitudinal study on Human capital and risk management in Microfinance Institutions Uganda
Longitudinal study on the clients of the microfinance performance in order to detect the impact of microfinance on the client's livelihoods.

References

AMFIU.2009. *The Ugandan Microfinance Directory 2009/10*. 4thed. Kampala.

Anas, E. and Mounira B. A. 2008. *Managing Risks and Liquidity in an Interest Free Banking Framework:* The Case of the Islamic Banks. *International Journal of Business Management*, 80-95.

Aspachs, O., E. Nier & Tiesset M. 2005. *Liquidity, Banking Regulation and the Macroeconomy. Evidence on Bank Liquidity Holdings from a Panel of UK-Resident*. Bank of England Working Paper.

Barnard C., 1938. *Functions of the Executive.* URL: http://www.business.illinois.edu/working papers/papers/10_0102.pdf

Buwule, M.H. 2011. *Corporate governance monitoring mechanisms and financial sustainability in selected urban and rural savings and credit cooperatives in Central Region, Uganda*. Unpublished Doctoral Thesis, Kampala International University, Kampala, Uganda.

Chandra, C. 2005.*Fundamentals of financial management*. 3rd ed. New York: Tata McGraw-Hill Publishing Company Limited.

Chikoko, L. 2012. *Liquidity risk management by Zimbabwean commercial banks*. Nelson Mandela Metropolitan University, Port Elizabeth. Unpublished Doctoral Thesis

Coleman, T.S. 2011.*A practical guide to risk management.* Research Foundation of CFA Institute. July:6.

Coleman A. K. & Osei, K. A. 2007.*Outreach and profitability of microfinance institutions: the role of governance*. Journal of Economic Studies. 35(3):236-248.

Creswell, J. W. 2003. *Research design: Qualitative, quantitative and mixed method approaches*. California, Thousand Oaks: Sage Publications.

Itzhak G.R.L.C. 1998. *Restructuring and managing the enterprise in transition EDI Learning resource series.* The International Bank for Reconstruction and Development. Washington D.C.

King III Report 2009. *Governance Principles for South Africa*.The business leaders.Published by Institute of Directors in South Africa.

Ledgerwood, J. and V. White 2006. *Transforming Microfinance Institutions: Providing full financial services to the poor.* The world bank: Washington D.C.

Ludwig von Bertalanffy 1969, General Systems theory, published by Florida StateUniversity.

Meredith Edwards and Clough, Robyn (2008). *Participatory Governance*. Issues paper series No. 6.

Ministry of Finance, Planning and Economic Development [*MFPED]* 2000, MFPED 1999a; MFPED 1999c and MFPED 2006.Publication.

------OECD Secretariat 2004. *Organization for Economic Co-operation and Development*"

Ogule 2005. *promoting internal checks and balances for enhanced corporate governance*. pg 126.

Otero, M. and Chu M. 2002. *Governance and ownership of microfinance institutions*. In The Commercialization of Microfinance: Balancing Business and Development. D. Drake and E. Ryhyne, eds 220 – 245 Kumarian Press Inc. West Hartford. Com.

---Uganda Bureau of Statistics publication 2014.

Vodova, P. 2011. *Liquidity of Czech Commercial Banks and its Determinants.* International Journal of Mathematical Models and Methods in Applied Sciences, 5, 1060-1067.

Front end of innovation: a disaggregated view

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Key words
collaboration; openness; front end; creativity, product definition, project definition customer integration; cross-industry networks; senior management involvement; cross-functional collaboration

Abstract

This research focuses on openness, and on a disaggregated view of the front end. A knowledge-based view of innovation is adopted to propose a framework that considers the front end as an open learning process leading to an informed decision on the development or termination of a new product idea. Building on Khurana and Rosenthal (1997, 1998), we focus on three knowledge outcomes or explicit forms of knowledge: a creative idea, a product definition, and a project definition. As organizational knowledge creation is predominantly an interactive process, we also focus on three collaborative competences as inputs. One of them, cross-functional collaboration competence, is internal to the company; and the other two stem from an open innovation approach: cross-industry networks competence, and customer integration competence. Lastly, senior management involvement is included as it is representative of company support and management of the whole front-end process. The framework, therefore, links four inputs (i.e., senior management involvement and three collaborative competences) and three front-end outcomes.

Using a sample of 190 innovative companies that conducted radical new product innovations, one size is revealed not to fit all. Cross-industry network competence matters for ideation and product definition, the former effect being linear and the latter curvilinear, but has no effect on project definition. Customer integration competence matters for the three outcomes. Cross-functional collaboration competence affects only project definition. Both senior management involvement and customer integration competence are crucial along the whole front-end learning process, customer integration proving to be particularly salient for product definition. Overall, this research depicts an open front-end process, although cross-industry openness matters less as successive knowledge outcomes are reached.

Black business during the bust: examining the impact of the great recession on black entrepreneurship

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Key Words
Entrepreneurship, black-white gap, race, black owned business, The Great Recession, self-employment

Abstract

Much of the literature on minority entrepreneurship in general and black business ownership in particular attempts to explain disparity by examining differences in resource allocation in terms of financial, social, or human capital. This study will contribute to the literature on entrepreneurship and race by exploring the ways in which changes in macroeconomic conditions may disproportionally impact business ownership rates and outcomes by race. The Great Recession will serve as a case study for me to examine the role of economic downturn in black business creation and survival. Data from the Survey of Consumer Finances (SCF) will be used to estimate the probability of firm creation and survival before, during, and after the recession.

First, I will pool cross-sectional data to establish patterns of business starts and survival among blacks and whites over time. Then, I will exploit the panel structure of the SCF for 2007 and its corresponding 2009 re-interview data to observe the effects of the Great Recession on respondent behavior. Using logistic regression analysis I will estimate the probability of starting a business in 2009 on the respondent's race and a vector of other respondent characteristic from the 2007 survey. Blinder–Oaxaca decomposition will determine which factors help explain potential racial disparities. Similar analysis will be employed to measure and explain black-white differences in business survival rates. Results may offer insights for policy makers seeking to better understand the factors which contribute to changes in business ownership rates overtime and aid them in developing policies to address underling factors.

The effect of customer reciprocity on e-loyalty through relationship quality: an international perspective.

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Keywords
E-tailing, e-loyalty, perceived relationship investment, relationship quality, reciprocity, international

Abstract

One of the key questions facing e-tailers centres on how to keep customers loyal when competitors are only a 'click away'. In addressing this question the reciprocal behaviour of customers is investigated in response to retailer investments online. This paper puts forward the argument that online retailer investments or 'efforts' perceived to have been made by the consumer will positively affect the strength of the relationship between retailers and consumers through relationship quality and so in turn e-loyalty.

This paper further proposes that the strength of the relationship will vary amongst the individual dimensions of relationship quality (online ongoing trust, online relationship satisfaction and online affective commitment). Empirical data is collected from four significant retail e-commerce markets; China, India, UK and US to provide an international perspective. The apparel and consumer electrical sectors have been chosen due to their popularity as online product categories and competitive market structures. Findings show strong support for this argument across China, India, UK and the US. Positive relationships are found between investments retailers make online and the individual dimensions of; online trust, satisfaction, and commitment. The weakest relationship across all four countries is found between online retailer investments and online relationship satisfaction. Slight variations have been found between the product sectors suggesting affective commitment is more significant in the apparel sector. The strongest relationships are found between online retailer investments and trust in China, India and the US, and with affective commitment in the UK. Data was collected from 1011 usable online surveys.

Is service fairness influencing customers' satisfaction and intention to pay insurance premium? A case in BPJS kesehatan Indonesia

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Keywords
BPJS Kesehatan, Intention to pay, Satisfaction, Service Fairness, BPJS Kesehatan

Abstract

This study discusses the importance of service fairness variables – Interactional Fairness, Procedural Fairness, and Distributive Fairness – toward customer satisfaction, which further leads to customer intention to pay. There is limited previous empirical research on the effect of service fairness to service delivery, particularly in the healthcare industry. The authors hypothesised that there was a positive influence from three variables of service fairness, from customer satisfaction, to customer satisfaction, to intention to pay. Using the descriptive quantitative method, this pilot study was conducted to review the service delivery of BPJS Kesehatan service providers in various cities in Indonesia, with BPJS Kesehatan members as respondents. Data analysis was analysed with PLS-SEM with SmartPLS software. The study showed that there was a positive impact of Interactional Fairness and Distributive Fairness on customer satisfaction, and customer satisfaction on intention to pay. However, this study failed to show the relationship between Procedural Fairness to customer satisfaction.

This study strengthens the building evidence of service fairness to customer satisfaction, specifically in-service delivery and in healthcare industry.

Improving customer experience through customer journey analysis (CJA) of mobile and fixed broadband services in Egypt.

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Keywords
customer journey analysis, touchpoints, customer experience.

Abstract
The purpose of this paper is to present Customer Journey Analysis (CJA) for empirical exploration of individual service experiences of mobile and ADSL fixed broadband services in Egypt. The qualitative data is collected through 17 semi structured interviews, the interviewees are customers of WE mobile broadband services, and TEdata ADSL fixed broadband services. The two providers represent the broadband arms of the integrated services provider Telecom Egypt Group. Each customer is asked to describe his/her actual journey that he/she passes through the installation process. Findings represent the visual notation of the actual installation journey, key problems, descriptions and classifications. Four types of deviations are found in service delivery: occurrence of ad hoc touchpoints, missing touchpoints, irregularities of the sequence of logically connected touchpoints and occurrence of failures in touchpoints.

1. Introduction to Customer Experience

Trends in the service economy recommend that experience is a key development in today's business field (Voss and Fellow, 2004). It is remarkable that the concept of experience is not novel and has been covered by various disciplines. Richins (1997) theorized that consumption embraces experiential effects. The utilization of customer experience to create value has been known as the experience economy (Pine and Gilmore, 1998). Experiences create emotional ties that are privileging tool for making brand value and differentiation. Voss and Fellow (2004) compose that in a domain where we have perpetually refined clients, those organizations that convey memorable customer experiences reliably, create superior value and competitive advantage. Customer experience is utilized to enhance the competitive advantage that is hard to be imitated (Pine and Gilmore, 1998). Setting focus on customers "experiences" helps organizations to make and keep loyal customers who move toward becoming advocates and revenue-generating customers for a considerable length of time by integrating the voice of the customer into their organizations (Responsetek, 2010).The concept of customer experience has been considered across a range of business conditions, including the online business, tourism, retailing and service delivery (Arnold et al. 2005; Bonnin 2006; Jones 1999; Quan and Wang 2004).

2. Definitions of Customer Experience

A definition differs according to a definer. The key feature probably in every definition is interaction. Meeting a customer is all the time a moment of human interaction, as there is a moment of truth that indicates the accomplishment of that meeting.

> "*Customer experience is the internal and subjective response customers have to any direct or indirect contact with a company. Direct contact generally occurs in the course of purchase, use, and service, and is usually initiated by the customer. Indirect contact most often involves unplanned encounters with the representation of a company's products, services, or brands and takes the form of word-of-mouth recommendations or criticisms, advertising, news reports, reviews, and so forth*".

(Meyer and Schwager, 2007).

Leppänen (2007,cited in Olenius,2013) emphasized the importance of thinking about the quality of service provided by organizations and assured that customer expectations and prior experiences are affected by the quality of service .

3. Service Experience versus Customer Experience

The literature revealed that the terms namely: service experience, customer service experience and customer experience have been usually utilized in many researches. The significant difference between the two concepts can be summarized in terms of the subject of the experience. Despite the fact that the idea of service experience refers to customers (and/or any actor) who experience the service, the notion of customer experience addresses customers as the experience actors.

Helkkula(2011) states that service experiences, in addition to customers, include service provider reps who experience the service as well, and other individuals in the social experience network, therefore characterizing it as occurring in multi-stakeholder network, where the customer experience is described mostly the same as internal and subjective reaction of the customer (Meyer and Schwager, 2007). It concentrates on customer's personal perception, assessment, interpretation and subjective response to holistic interaction (Jain et al., 2017).

4. Service blueprints and customer journeys

Service blueprinting is a method anchored in flowcharts that visually clarifies the steps engaged with a service delivery process(Shostack's, 1982, cited in Halvorsrud et al., 2016; Gummesson and Brundage, 1992; Bitner et al., 2008; Patrício et al., 2008 and Holmlid and Evenson, 2008).The notion of "customer journeys" has generated a wide range of approaches went for following a customer through a service delivery process, as a "walk in the customer's shoes" as the approach of customer journey originally focused more around emerging customer stories rather than methodology (Koivisto, 2009 and Segelström, 2013). Customer Journey Framework (CJF) is a conceptual framework that takes into consideration the comparison of an individual journey versus the planned journey and comparison crosswise a sample of individual journeys which basically focuses on the service delivery process that goes before or includes the service outcome (Hevner et al., 2004; Zomerdijk and Voss, 2010; Sandström et al., 2008; Fließ and Kleinaltenkamp, 2004; Edvardsson and Olsson, 1996 and Bitner et al., 2008).

The term "touch point" is commonly utilized among practitioners however, there are other terms seems to be synonyms (Stauss and Weinlich, 1997; Carlzon, 1989; Lillrank, 2009; Koivisto, 2009). Service providers communicate with their customers throughout the use of customer channels such as; call centers, SMS, chat, e-mail, and face-to-face conversation (Rayport and Jaworski, 2004; Sousa and Voss, 2006). While the customer journey has been characterized as the unique story of each customer (Stickdorn and Schneider, 2011 and Koivisto, 2009) and consists of static state settled by the service provider and the dynamic state seen by the customers (Shostack, 1987, cited in Halvorsrud et al., 2016 ; Lillrank, 2009 and Rawson et al.,2013).

5. The customer journey framework CJF

CJF is a conceptual framework that takes into consideration the comparison of an individual journey versus the planned journey and comparison crosswise a sample of individual journeys. Services are meant as technology-based services (Sandström et al., 2008) or provider dominated services (Fließ and Kleinaltenkamp, 2004), rather than experience focused and labor-intensive services (Zomerdijk and Voss, 2010). CJF basically focuses on the service delivery process (Edvardsson and Olsson, 1996) that goes before or includes the service outcome. "touchpoint" is commonly utilized among practitioners, it was brought as quite recently into the academic literature (Bitner et al., 2008). Service providers communicate with their customers throughout the use of customer channels or service interfaces (Rayport and Jaworski, 2004, Sousa and Voss, 2006)).

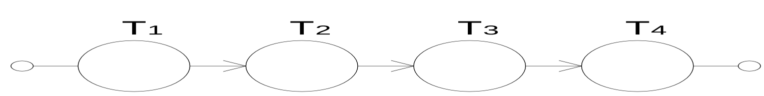
CJF receives the term channel to sign if a medium used to pass on interaction and communication between a customer and a service provider .For instance, customer channels can be : call centers, SMS, chat, e-mail, and face-to-face conversation. Channels represent the carriers of touchpoints, and they can be advanced (e.g. e-mail), human-served (e.g. a work area in a shop), or both. In CJF, touchpoint can be defined as a moment of communication between a customer and a service provider (Zomerdijk and Voss, 2011). Speaking about a customer journey which can be modeled as a sequence of back to back touchpoints; in terms of duration, it can be either short (hours) or long (weeks), depending on the service being explored. CJF recognizes planned customer journeys (static) and actual customer journeys (dynamic), corresponding to the potential and potential state of a service, respectively, as recommended by Shostack (1982, cited in Halvorsrud et al, 2016). Customer journey approach is proffered to be interpreted and represented visually through the visual notation and this will be obviously clarified through the next section.

5.1. Visual notation

Visualizations are utilized widely in-service design to make an interpretation of data into insights and as a communication tool (Segelström and Holmlid, 2009). Indications about customer experience might be seen certainly in the notation in the form of sequence errors, failing touchpoints, and other deviations. As it presented by Gustafsson and Johnson (2003), they offered an early visual portrayal of a service as if it is a chain of interconnected circles.

Touch points are represented as circular components, and touch point status and attributes are arranged in the boundary style and the encased circle area (Brown, 1988, cited in Halvorsrud et al., 2016). An over scored touch point was utilized to indicate a failure, for example, a missing message on an unsuccessful installation attempt. Figure (1) reveals a principal draw of planned and actual journeys in CJF. Planned journeys are drawn as an interconnected sequence of touch points (Figure 1a) while, the touch points are labeled with an identifier (T0, T1, …,Tn) due to the order in which they are planned by the provider to occur. (Figure 1b) illustrates the actual journey. The dynamic state is emphasized, which reaches out in the direction of time. As the journey unfolds in time, the expected touch points are placed over the arrow, and deviations are displaced vertically under the preceding touchpoints.

(A) Planned journey



(B) Actual journey

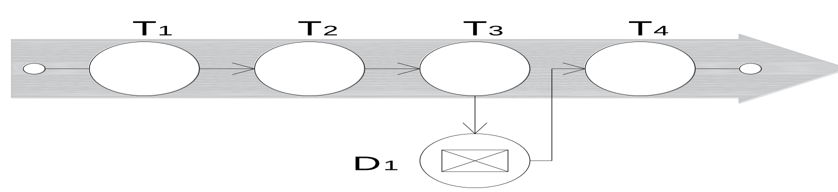


Figure (1): Visualization of customer journeys
Notes: (a) Planned journey; (b) actual journey

6. Customer journey: approach, phases and analysis

Customer journey approach concerns the customer's view point and adopts CJF's concepts and modeling approach. (Yin, 2009) assessed that the approach of customer journey has drawn in a case study. While, Lazar et al. (2010) involved a study of experiences by utilizing multiple data sources, and emphasized qualitative data and analysis as this approach depends originally on the customer experience of the provided service.

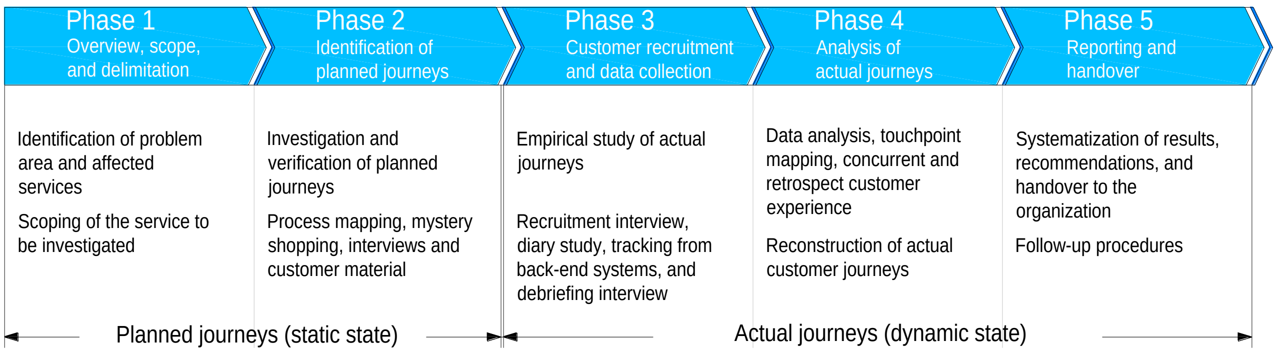


Figure 2: The five phases of the customer journey analysis (CJA) procedure.
Source: Yin (2009, cited in Halvorsrud et al, 2016).

7. Customer journey analysis (CJA)

CJA has been produced for empirical researches of service delivery processes as seen from the customer's point of view, and it receives CJF's concepts and modeling approach. (Yin, 2009) argue that CJA draws on a case study approach by linking an assessment of experiences using multiple data sources, and it emphasizes in its nature the qualitative data and analysis (Lazar et al., 2010). The CJA procedure consists of five phases, as shown in figure (2). Phases 1 and 2 set up a common comprehension of the target of the analysis, and to recognize and model planned journeys. Phases 3 and 4 deal with data collection and reconstruction of the comparing actual journeys. Finally, Phase 5 is dedicated to systematization of results and deviations over the study (Halvorsrud et al., 2016).

7.1 Application of CJA for service improvement

With more than 160 years of operational Telecom history, Telecom Egypt Group (TEG) is the largest service provider of fixed line services in the Middle East and Africa. TEG as a governmental telecommunication company only controls Egypt's fixed line network, servicing both the retail voice and the wholesale demand for reliable telecommunications connections. With the initiation of market liberalization, TEG has focused on establishing a strong platform for the wholesale services to other telecommunications operators selecting to use its extensive network. TEG is the largest IP based data communications and market leader of the fixed broadband services provider with (TEdata). In September 2017 TEG lunched a new mobile network (WE) with 4G LTE technology.

In the wake of lunching the new services, the researcher performs this study to portrait the mobile and ADSL fixed broadband service delivery as a base for service improvements and future redesign for customer journey. The motivation behind most researches has been to reveal reasons for an elevated number of customer inquiries, or a high churn rate.

The qualitative data is collected through 17 semi structured interviews, the interviewees are customers of WE mobile broadband, and TE data fixed broadband or both. Each customer is asked to describe his/her actual journey that he/she passes through the installation process. The aim is to demonstrate the suitability of a model-based approach to customer journeys and, particularly, the applicability of CJA for service improvement.

Findings represent the visual notation of the actual installation journey compared with the blueprint of the service provider followed by comments on each case.

Phase 1: overview, scope, and delimitation

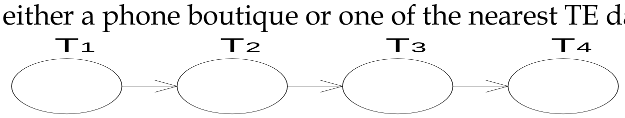
The purpose of the analysis was to detect the current and potential weak points in the customer journey for current fixed and new mobile broadband services. This purpose was seen as particularly critical, as this study performed in the wake of lunching the WE services. The phone boutiques were chosen as the target, by virtue of the high volume of sales. To guarantee a homogeneous sample of journeys, the following criteria were established: consumers only, new WE/TEdata broadband customers only. The scope of the analysis was investigating the journey of installation process in which is gradually shaped as target customer. The start and endpoint of the target journeys are characterized, and support from the operative units are set up, if needed (Halvorsrud et al., 2016).

Phase 2: identification of planned journeys

Halvorsrud et al. (2016) argue that the target of Phase 2 is to characterize the relevant journeys as seen from the point of view of the service provider. Where, CJF is utilized to identify, model, and verify the service delivery process as far as arranged planned customer journeys .Methods like basic flowcharting, service blueprinting or other process analysis are used (van der Wiele et al., 2005; Bitner et al., 2008 and Lillrank, 2009).The drafted static journey was refined in an iterative manner with complementary information obtained by sales representatives from the front and back office of phone boutiques. The following steps are the blueprint of mobile and ADSL broadband services presented by TEG which represent the sequence of customer experience during the installation process. The direction of the procedures is illustrated by the arrows which he reader through each of the procedures.

WE Mobile Broadband Installation Journey

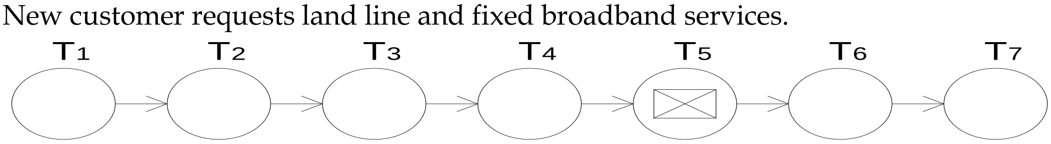
These are the steps or blueprint of installation process as settled by TEG. The customer should go for either a phone boutique or one of the nearest TE data branches and start the journey as the following:



T1: The customer should prepare his/her valid personal ID and should make this in person. Then, present ID to the sales rep, in this case the customer should choose and specify the kind of service that he/she would contract with , either data only or control (voice and data) prepaid system.
T2: Signing the contract and receiving his/her copy; T3: Receiving the SIM card.
T4: Putting the SIM card into the mobile phone and receiving the activation messages to activate the service and charge. The activation should be done in no time once the customer put the SIM card into the mobile phone. If there is any problem, the customer should contact the call center.

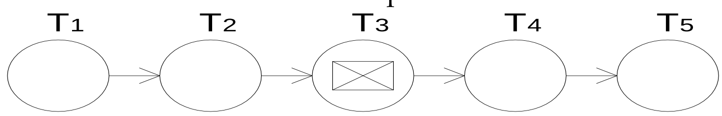
TEdata ADSL Fixed Broadband Installation Journey

New customer requests land line and fixed broadband services.



This customer is a new customer who has to start the journey from scratch. First, the customer should apply for a land line then data services and start the journey as the following:
T1: The customer should present the required papers to sales rep and fill an application form to obtain land-line services;
T2: Checking the technical availability for the land line services;
T3: Signing the contract of land line services, demanding and contracting the data services;
T4: Checking and preceding the availability of data transfer;
T5: Sending welcome SMS to inform the customer to come to the nearest branch of TE data to receive the home gate (router) also, embraces password and username concerning the land line number that will be used in the configuration;
T6: Receiving the router either by the customer in person or by sending it to the customer's address due to customer request, and offering a free visit to install and activate the service;
T7: Activating the data services.

New customer requests ADSL fixed broadband



services

This customer already has a land line and wants to proceed in obtaining the data services, the procedures will be as the following:

T1: the customer requests the data services and this can be done by calling the call center or go to one of TE phone boutiques or go directly to the nearest TE data branches.

T2: Checking and preceding the availability of data transfer.

T3: Sending welcome SMS to inform the customer to come to the nearest branch of TE data to receive the home gate (router) also, embraces password and username concerning the land line number that will be used in the configuration.

T4: Receiving the router either by the customer in person or by sending it to the customer's address due to customer request, and offering a free visit to install and activate the service.

T5: Activating the data services.

Phase 3: customer recruitment and data collection

The goal of Phase 3 is informant sampling and data gathering. Through a semi structured interview, the actual journeys were reviewed with the interviewees. The researcher initiated the interview with an informal dialogue in order to let customers express instant thoughts and possible frustration. This was followed by asking the interviewees to draw their journey from T0 in a forward sequential order. Touchpoint attributes were gathered with experiential data, describing and rating of perceived touchpoint quality. Moreover, suggestions for improvement. The final part of the interview addressed cross-channel uniformity and overall impression of the installation process.

Phase 4: analysis of actual journeys

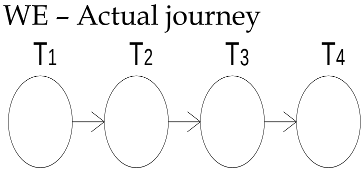
The target of Phase 4 is to analyze and model the collected data from Phase 3. A different model of the real customer journey is set up for each individual source, for comparison with the planned journey settled by the service provider (Halvorsrud et al.,2016). The actual journeys were reestablished on an individual level by collected data from the interviews. Touchpoints were extracted and arranged according to the time they were experiences by the customer. The involved part of the dynamic journeys was visualized and compared with reference to the static journey for easy detection of deviations.

Visual notation of the actual journey and detection of deviations

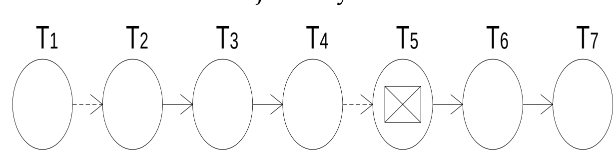
The following is the actual journey of the interviewees represented by the visual notation and then, the comment of each case.

The Actual Journey of Interviewee (1)

WE – Actual journey



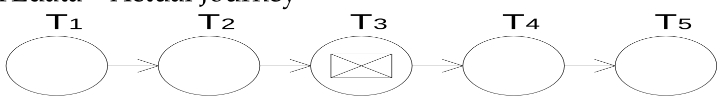
TEdata –Actual journey



Interviewee (1): Is a customer of both mobile and ADSL fixed broadband. The mobile actual journey was as good as the blueprint so, the customer was satisfied about it but the problem was in the fixed broad band journey .Comparing the blue print by the actual journey, the dash lines located between T1, T2 represents 3weeks and T4, T5 represent1week of waiting time. The interviewee was dissatisfied with this long waiting periods proceeding to obtain the broadband services and this is obvious through the response of the next question, when the researcher asked about the gained experience, it seems that the customer was unhappy and dissatisfied with the experience of installation.

The Actual Journey of Interviewees (2, 3,4 ,5,11 and 12)

TEdata – Actual Journey



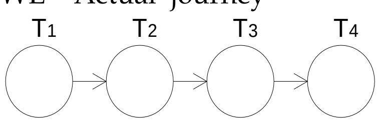
Interviewee (2): Is a customer of ADSL fixed broadband who is already has a land line, blue print (B). It is obvious that, the customer passes through a normal journey and she was satisfied with the procedures of the installation process and added, after receiving the router, the researcher continued activating the data services with the call center and they were very helpful. For interviewee (3): The customer mentioned a technician performed a home visit and expressed her good impressions with the installation journey. However, interviewee (4) was dissatisfied with the presented speed and complained about the price.

Interviewee (5): This customer is a business customer using ADSL services in this branch of the company. In such cases the proxy is the person who is responsible for contracting with the service provider .Also, the process of installation was smooth and the activation done with the call center. However, the customer complaint about the speed and stability.

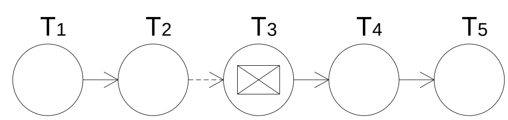
Interviewee (11) expressed positive experience of installation process of ADSL services. Interviewee (12) said that his experience was smooth and there was no problem and added that he just waited for 5 days to get the availability of data services.

The Actual Journey of Interviewee (6)

WE –Actual journey



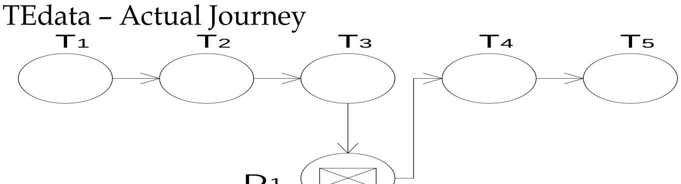
TEdata – Actual Journey



Interviewee (6): Is a customer of both mobile and fixed broadband services. Although the waiting time taken in proceeding the installation process of fixed broadband which was about 15 days, the customer considered it was a good journey. However, the customer expressed negative impressions and unhappy journey with the installation process of the mobile broadband because of the long waiting time and long queues and above all, the customer couldn't find good numbers to choose between in addition, the phone boutique was very crowded and not organized enough.

The Actual Journey of Interviewee (7, 15)

TEdata – Actual Journey

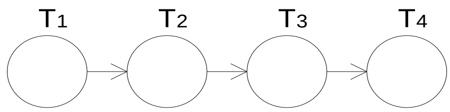


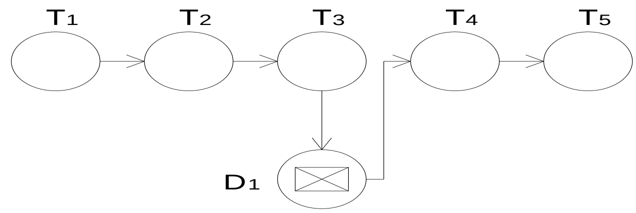
Interviewee (7, 15): Those customers did not receive SMS on his mobile phone and when calling the call center, they told them that their lines are ready and they have to go to the nearest TEdata branch to receive the home gate and complete the rest of the procedures.

The Actual Journey of Interviewee (8)

WE- Actual Journey

TEdata – Actual Journey

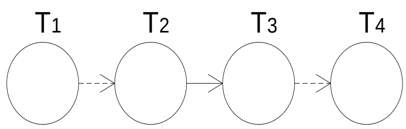




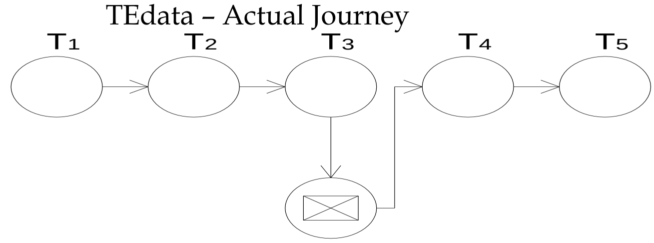
Interviewee (8): the customer passed through a normal mobile installation journey. However, did not receive SMS on his mobile phone for his fixed journey.

The Actual Journey of Interviewee (9)

WE-Actual Journey



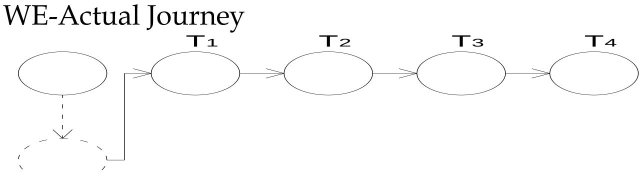
TEdata – Actual Journey



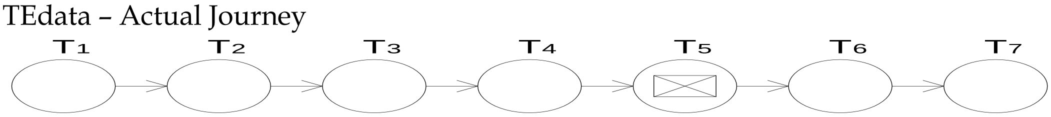
Interviewee (9): Describing the journey of WE, the customer had to wait 8 hours to get his SIM card and after finishing the procedures, he made several calls with the call center to activate his line which finally activated after 3 days and when he asked about the reason of this delay, the call center replied they do not know. Describing the ADSL actual journey, the customer stated that he did not receive SMS on his mobile phone.

The Actual Journey of Interviewee (10)

WE-Actual Journey



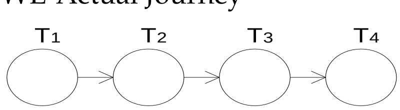
TEdata – Actual Journey



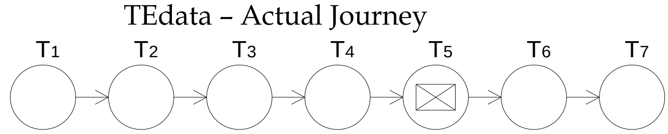
Interviewee (10): The customer described his journey with WE by that when he went to buy a SIM card from a phone boutique, the sales rep refused his ID because it was broken. Thus, he had to wait to the next day and come back with his wife and his wife bought 2 SIM cards with her valid ID and said that he is facing a problem with WE as there is a problem in coverage and another problem in activation messages on his mobile phone concerning manual setting of WE network. This customer of fixed internet blueprint (A) expressed good experience with the fixed broadband and added, he is using ADSL services operate surveillance cameras as well as follow up offers offered by other supermarkets and other companies.

The Actual Journey of Interviewee (13)

WE-Actual Journey



TEdata – Actual Journey

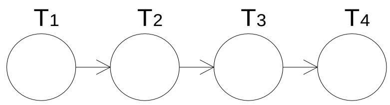


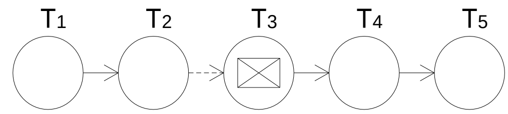
Interviewee (13): Is a customer of both mobile and fixed broadband, blueprint (A).This customer expressed his excellent experience with Telecom Egypt Group and stated that he did not face any problem during the installation processes.

The Actual Journey of Interviewee (14)

WE –Actual journey

TEdata – Actual Journey

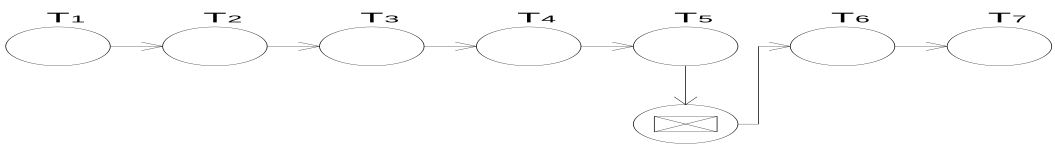




Interviewee (14): Is a customer of both mobile and fixed broadband, blueprint (B).This customer was dissatisfied with the very long waiting time taken for the availability of data for his line. Although he expressed good experience in WE journey. However, he suggested putting free WIFI in all phone boutiques to entertain customers during the waiting time and he added, that will increase the satisfaction level of customers especially the youth segment.

The Actual Journey of Interviewee (16)

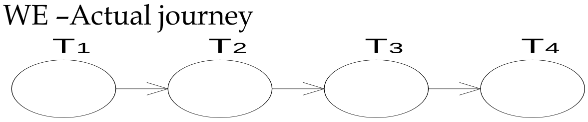
TEdata – Actual Journey



Interviewee (16): this customer of fixed internet blueprint (A). This customer did not receive SMS on her mobile phone but, she expressed smooth installation journey.

The Actual Journey of Interviewee (17)

WE –Actual journey



Interviewee (17): the customer mentioned that after the activation of WE line, the internet services were not valid so, he made so many calls with the call center and they sent the activation messages again to his number until the service were activated and above all he was dissatisfied with the installation journey.

Phase 5: reporting and handover: Halvorsrud et al. (2016) notice in Phase 5, potential gaps between the planned journeys set up by service provider and the actual journeys seen by customers are further investigated across the study. The target of this investigation is to distinguish potential patterns of deviations across the informants. To summarize the result of the 17 interviews explored above, the following table contains the key problems and descriptions found in actual journey.

Problem	**Description**
Very long time in WE installation process	Negative impressions and unhappy journey with the installation process of the mobile broadband were expressed because of the long waiting time and long queues to obtain the SIM card.
Activation problems with WE network	Customers had to make several calls with the call center to activate WE line which finally activated after 3 days.
Activation problem occurs with mobile broadband services	Dissatisfaction and unhappy journey was expressed because of the activation messages and creation of a virtual network in the mobile phone to activate the internet services .Another disconnection problem was detected when receiving a call. So the customer had to repeat the prior creation steps of a virtual network .
Invalid documents	When the customer went to buy a SIM card from a phone boutique, the sales rep refused his broken ID. Thus, he had to wait until the next day and come back with his wife and his wife bought 2 SIM cards with her valid ID.
Long waiting time for the technical availability in land line procedures	New customers concerning blueprint (A) complained about the long waiting time taken for preparing the technical availability in land line procedures.

SMS problem	Customers expressed serious problem with TEdata follow up system because they did not receive welcome SMS on the mobile phone informing those customers with the readiness of the line so, they should go to the nearest TE data branch to receive the router and complete the rest of the procedures.

Table (2): Summary of the common problems and descriptions found in the actual journey

8. Discussion

The purpose of this paper was to investigate the proposed framework presented by Halvorsrud et al. (2016) using customer journeys as a new approach for a structured portrayal of service delivery from the customer's perspectives. The paper also presents CJA for empirical exploration of individual service experiences of mobile and ADSL fixed broadband services. Due to the performed interviews the problems summarized and classified into two types: the first type is that, problems relevant to the policy and procedures of TEG such as the invalid documents (invalid/broken ID and others) and the researcher believes that no action would be taken to solve these problems as it is mandatory for the customer to present valid and correct documents to go through the procedures as these precautions concern the national security.

However, the second type of problems relevant to the long waiting time taken for preparation and technical availability as TEG faces many problems due to the unauthorized constructions and slums, welcome SMS problem, the activation messages problem and the procedures, the researcher believes that TEG has to improve the procedures and increase the satisfaction levels. Moreover, two extremes found throughout the answers of the interviewees, the first was a woman said she purchased the SIM card of WE because of political issues as she heard from the media that WE follows the Egyptian military forces and she trust them and the second extreme was also a woman who waited more than 5 hours to buy a SIM card and when she was asked about the reason the interviewee said "*when I purchased WE. I think this is the first time for me that I feel the money which I pay for a service will be back to my pocket. WE is a national company and we should support it*".

The dynamic journeys were characterized by the various deviations from the static journey remarkably in terms of ad hoc touchpoints and timing errors. Outstandingly, most the customers experienced deviations, and some journeys were consistent with the static journey. Further, patterns of deviations were identified: Ad hoc touchpoints occurred during installation procedures, (type 1). Timing errors (missing touchpoints) occurred in many cases (type 2). Repeated occurrence of failing touchpoints (type 3). Most of the customers experienced deviations in irregularities of the sequence of logically connected touchpoints (type 4). In conclusion, the high occurrence of ad hoc touchpoints was powerfully correlated with timing problems in the actual journeys.

The case studies advanced internal awareness in TEG that stronger customer and service orientations were considered necessary. Specifically, a gap was identified on two dimensions. *First*, there was a lack of awareness in TEG regarding the planned journeys. CJA uncovered, ad hoc and irregular touchpoints in the planned static journeys, which were unidentified to TEG because the units involved in the service delivery had insufficient knowledge and training about the end-to-end service delivery process.TEG didn't provide good estimate for the appropriate number of sales reps through the first days of lunching the mobile broadband services and did not give a professional training and gave them just a simple training course for 5 days on the new system of work .This obviously caused numerous problems as the sales reps were not sufficiently familiar with the new work system.

In addition, TEG did not give the mobile broadband customers enough information about the 4G LTE provided frequencies and did not inform them if their mobile phone can cope with those frequencies or not and this caused a percentage of customer's dissatisfaction as they expressed unhappy journeys . So, they yearned for not enjoying the mobile broadband services as they had to create a virtual network on their mobile phone to activate the internet services of WE. However, TEG faced many problems due to the unauthorized constructions and slums as this showed one of the conceptual factors affecting the quality of customer journey of the fixed broadband services. So, it is recommended to the governmental body and the top management of TEG planning, restructuring and covering these random areas with the necessary infrastructure and Multi- Service Access Networks (MSAN) within good quality.

Second, there was a lack of awareness on the other side occurred about the dynamic state of the service process. Numerous deviations were illustrated. When comparing all the individual journeys for a certain case, the great variability in service delivery became evident as every customer had a unique journey and all journeys were not on an equal footing. Furthermore, loss of revenue and enlarged cost were consequent from the deviations between expected and actual dynamic journeys. Due to the great competence in the telecom market in Egypt, TEG should pay more attention to the importance of engaging their customers in the development process through listening to the voice of customers.

9. Limitations and future research recommendations

This research was investigated in telecom field and characterized by logically connected steps with low degree of freedom during execution. Further research is needed to determine whether CJF consider an effective approach for services of more variable nature. So, the researcher recommends this approach to be investigated in other fields. Moreover, the researcher investigated and analyzed the customer journey of mobile and ADSL fixed broadband customers, further research is recommended with business customers. From a business point of view, prediction and prevention of churn are crucial. CJA represents a chance to investigate circumstances evoking churn, as it usually includes individuals who do not complete their journeys. One approach could be to examine potential patterns in the rate of ad hoc touch points to recognize unfavorable experiences mounting the risk of churn. There is a need to survey whether observable attributes through service delivery could grant valid predictions about the related customer experience.

References

Arnold, M.J. Reynolds, K.E. Ponder, N. and Lueg, J.E. (2005) 'Customer delight in a retail context: investigating delightful and terrible shopping experiences'. Journal of Business Research, 58, pp.1132–145.

Bitner, M.J., Ostrom, A.L. and Morgan, F.N. (2008), "Service blueprinting: a practical technique for service innovation", California Management Review, Vol. 50 No. 3, pp. 66-94.

Bonnin, G. (2006) 'Physical environment and service experience: an appropriation-based model', Journal of Services Research, 6, pp. 45–65.

Carlzon, J. (1989), Moments of Truth, Harper, New York, NY.

Edvardsson, B. and Olsson, J. (1996), "Key concepts for new service development", Service Industries Journal, Vol. 16 No. 2, pp. 140-164.

Fließ, S. and Kleinaltenkamp, M. (2004), "Blueprinting the service company: managing service processes efficiently", Journal of Business Research, Vol. 57 No. 4, pp. 392-404.

Gummesson, E. and Kingman-Brundage, J. (1992), "Service design and quality: applying service blueprinting and service mapping to railroad services", in Kunst, P.

Gustafsson, A. and Johnson, M.D. (2003), Competing in a Service Economy: How to Create a Competitive Advantage Through Service Development and Innovation, Jossey-Bass,San Francisco, CA.

Helkkula, A. (2011), "Characterising the concept of service experience", Journal of Service Management, Vol. 22 No. 3, pp. 367-38.

Hevner, A.R., March, S.T., Park, J. and Ram, S. (2004), "Design science in information systemsresearch", MIS Quarterly, Vol. 28 No. 1, pp. 75-105.

Holmlid, S. and Evenson, S. (2008), "Bringing service design to service sciences, management and engineering", in Hefley, B. and Murphy, W. (Eds), Service Science, Management and Engineering Education for the 21st Century, Springer, New York, NY, pp. 341-345.

Jones, M.A. (1999) 'entertaining shopping experiences: an exploratory investigation',Journal of Retailing and Consumer Services, 6, pp.129–139.

Karapanos, E., Zimmerman, J., Forlizzi, J. and Martens, J.-B. (2009), "User experience over time: an initial framework", Proceedings of the SIGCHI Conference on Human Factors in Computing Systems, pp. 729-738.

Koivisto, M. (2009), "Frameworks for structuring services and customer experiences",in Miettinen, S. and Koivisto, M. (Eds), Designing Services with Innovative Methods,University of Art and Design, Helsinki, pp. 136-149.

Leena Olenius(2013)," Changing Tomorrow in Customer Experience", Lahti University oF Applied Sciences, Degree Programme in International Business Management ,Master's Thesis .

Lazar, J., Feng, J.H. and Hochheiser, H. (2010), Research Methods in Human-Computer Interaction,John Wiley & Sons, Hoboken, NJ.

Lemmink, J. (Eds),Quality Management in Services, Van Gorcum, Assen, pp. 101-114.

Lillrank, P. (2009), "Service processes", in Salvendy, G. and Karwowski, W. (Eds), Introduction toService Engineering, John Wiley & Sons, Hoboken, NJ, pp. 338-364.

Meyer, C. and Schwager, A. (2007), "Understanding customer experience", Harvard BusinessReview, Vol. 85 No. 2, pp. 117-126.

M. L. Richins, (1997). Measuring emotions in the consumption experience. Journal of Consumer Research. [Online]. 24. pp. 127-146.

Patrício, L., Fisk, R.P. and Cunha, J.F. (2008), "Designing multi-interface service experiences: the service experience blueprint", Journal of Service Research, Vol. 10 No. 4, pp. 318-334.

Pine, I.,B.J.& Gilmore, J.H. 1998, "Welcome to the Experience Economy", Harvard business review, vol. 76, no. 4, pp. 97-105.

Quan, S. and Wang, N. (2004). 'Towards a structural model of the tourist experience: an illustration from food experiences in tourism.' Tourism Management,25, pp.297– 305.

Ragnhild Halvorsrud, Knut Kvale, AsbjørnFølstad, (2016) "Improving service quality through customer journey analysis", Journal of Service Theory and Practice, Vol. 26 Issue: 6, pp.840-867

Rajnish Jain, Jayesh Aagja, Shilpa Bagdare, (2017) "Customer experience – a review and research agenda", Journal of Service Theory and Practice, Vol. 27 Issue: 3, pp.642-662.

Rawson, A., Duncan, E. and Jones, C. (2013), "The truth about customer experience", HarvardBusiness Review, Vol. 91 No. 9, pp. 90-98.

Rayport, J.F. and Jaworski, B.J. (2004), "Best face forward", Harvard Business Review, Vol. 82No. 12.

Responsetek ,(2010),Customer Experience Management Suite [Homepage of Responsetek], [Online]. Available:www.responsetek.com .

Sandström, S., Bo Edvardsson, B., Kristensson, P. and Magnusson, P. (2008), "Value in use throughservice experience", Managing Service Quality, Vol. 18 No. 2, pp. 112-126.

Segelström, F. (2013), "Stakeholder engagement for service design: how service designers identify and communicate insights", PhD thesis, Linköping University, pp. 1-185, available at:http:// liu.diva-portal.org/smash/get/diva2:647878/FULLTEXT03.pdf

Stauss, B. and Weinlich, B. (1997), "Process-oriented measurement of service quality:applying the sequential incident technique", European Journal of Marketing, Vol. 31 No. 1,pp. 33-55.

Segelström, F. and Holmlid, S. (2009), "Visualization as tools for research: service designers on visualizations", paper presented at the Nordic Design Research Conference (NORDES),Oslo, August 30-September 1, available at:
www.nordes.org/opj/index.php/n13/article/view/53/44 (October 13, 2016).

Stickdorn, M. and Schneider, J. (2011), This is Service Design Thinking: Basics, Tools, Cases, BIS Publishers, Amsterdam.

Sousa, R. and Voss, C.A. (2006), “Service quality in multichannel services employing virtual channels”, Journal of Service Research, Vol. 8 No. 4, pp. 356-371.

van der Wiele, T., Hesselink, M. and Iwaarden, J.V. (2005), “Mystery shopping: a tool to
develop insight into customer service provision”, Total Quality Management, Vol. 16 No. 4,pp. 529-541.

van Dijk, G., Minocha, S. and Laing, A. (2007), “Consumers, channels and communication: onlineand offline communication in service consumption”, Interacting with Computers, Vol. 19No. 1, pp. 7-19.

Voss, C. & Fellow, S. 2004, "Trends in the Experience and Service Economy: The Experience Profit Cycle", London Business School.

Yin, R.K. (2009), Case Study Research: Design and Methods, Sage, Los Angeles, CA.

Zomerdijk, L.G. and Voss, C.A. (2010), “Service design for experience-centric services”, Journal ofService Research, Vol. 13 No. 1, pp. 67-82.

Zomerdijk, L.G. and Voss, C.A. (2011), “NSD processes and practices in experiential services”, Journal of Product Innovation Management, Vol. 28 No. 1, pp. 63-80.

http://english.ahram.org.eg/NewsContent/3/12/277383/Business/Economy/Telecom-Egypt-launches-countrys-fourth-mobile-netw.aspx

Customer satisfaction on supermarket retail shopping using web-based participatory GIS

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Keywords
Customer satisfaction, PGIS, spraycan, retail shopping, simple density, supermarket

Abstract

Satisfaction is the post-purchase evaluation by the consumer of the overall service experience where the needs and expectations have been met or exceeded (Abubakar et al, 2001). Retailers monitor customer satisfaction to determine how to increase their customer base, customer loyalty, revenue, profits, market share and survival (CSSP, 2007).

To allow for customer satisfaction to be measured, the concepts of Participatory GIS can be explored. Participatory GIS (PGIS) is the use of geo-spatial information or GIS technology used by members of the public for participation in public processes that affect their lives (Tulloch, 2003). It aims to represent people's perception and knowledge by map products to facilitate decision making and community advocacy (McCall et al, 2015). PGIS involves allowing local people to create information to be fed into the GIS and subsequently analysed for in spatial decision-making which affects them (Dunn, 2007).

The project aimed at answering the question of customer satisfaction with supermarket retail shopping and its important determinants with the aid of participatory GIS technology. The data sets were generated from a web-based PGIS survey on Map-me platform using spray-can carried out among citizens in the city of Lagos, south-west Nigeria. The results were analysed and mapped in a GIS software. High and low clusters of satisfaction were visible, and when put to test, the global Moran's I index was 0.47 and the z-score was high at 535 which indicated a high cluster of satisfaction.

This research therefore, demonstrated the usefulness of GIS to gain spatial insights into the customer satisfaction with supermarket retail shopping and would also encourage the use of GIS in the conduct of customer satisfaction surveys.

Background and purpose of study

Satisfaction is the post-purchase evaluation by the consumer of the overall service experience where the needs and expectations have been met or exceeded (Abubakar et al, 2001). In retailing, it is believed that customer satisfaction plays a major role in the success of a business strategy (Al-Ali et al, 2015) because it is through it that firms remain, grow and develop in a successful way (Thương, 2016). Retailers monitor customer satisfaction to determine how to increase their customer base, customer loyalty, revenue, profits, market share and survival (CSSP, 2007).

Earlier research on customer satisfaction in supermarket retail shopping had established that determinants of customer satisfaction include store atmosphere, product, service, relationship, price, convenience and brand image (Wenwei and Tongtong, 2010). Al-Ali et al (2015) added assortment, relationship with customer and store accessibility.

Retail outlet in Nigeria can be classified into Local Traditional markets, street trading and Modern Retail Outlet (MRO) (Igwe and Chukwu, 2016). The modern retail outlet is now popular in Nigeria with the re-emergence and growth of supermarkets, shopping malls, and shopping plazas. The old fashion of small retail shops is changing to bigger stores where customers have options of picking the choices of a product while having the opportunity to move around. This is a recent trend in most developing countries (Arshad et al, 2014). This rise has brought about increased competition among the Modern retail outlet for customer patronage. It is therefore important for them to study and capture customer satisfaction and its determinant understand what they need to do to remain competitive.

Although work had been done on customer satisfaction in western or developed countries, little is known about its formulation in developing countries like Nigeria (Al-Ali et al, 2015). The few works available were carried out using customer surveys; however, just doing a survey for a sample of the customer would not give deeper answers (Baybeck, 2002). GIS technology can be used to give a better understanding of customer satisfaction by adding spatial components to the surveys and therefore giving the administrators a fuller story (Chhetri and Robert, 2014). This will allow discovery of a spatial pattern of satisfaction at different levels of aggregation which otherwise would have been missed and the visualization of the results would be friendlier. (Baybeck, 2002).

This study introduced the use of a type of GIS technology known as Participatory GIS to give insight into spatial patterns and trends and the important determinants of customer satisfaction with supermarket retail shopping in Lagos state. Participatory GIS (PGIS) is the use of geo-spatial information by members of the public for participation in public processes that affect their lives (Tulloch, 2003). It aims to represent people's perception and knowledge by map products to facilitate decision making and community advocacy (McCall et al, 2015). The design and utilization of PGIS will therefore, demonstrate how to measure, visualize and analyse customer satisfaction by collecting both spatial and non-spatial data from the public.

Data gathering methods in participatory GIS practices range from the traditional mapping tools, such as hand-drawn sketch maps, to embrace of three-dimensional models and the interpretation of aerial photographs and satellite images (McCall, 2004). Ramsey (2010) however, identified a web-based approach to implementation of PGIS. This involved utilizing the internet to connect with citizens for the gathering of the necessary data for the PGIS. These internet-based applications have the great advantage of being available to larger group among the citizens like any other pages in the web, and it helps to information quite anonymously (Khahila and Kyttä, 2006).
The anonymity that is provided in web-based PGIS can be advantageous because it enables 'non-threatening' interaction compared to the personal identification and confrontation of public (Dunn, 2007).

There had been many other applications of PGIS to elicit citizens perception, however, there is a dearth of work on its utilization for citizen satisfaction survey. The purpose of this study therefore, is to demonstrate the use of web-based PGIS technology to give insight into spatial patterns, trends and important determinants of the customer satisfaction with supermarket retail shopping in the city of Lagos, south-west Nigeria.

The motivation for this work is that the use of GIS in general and PGIS, in particular, to conduct customer satisfaction survey is totally a novel idea in Nigeria. This research would therefore, give insights into the customer satisfaction with supermarket retail shopping and would also encourage the use of GIS in the conduct of customer satisfaction surveys.

Aims and objectives

The study aimed at answering the question of customer satisfaction with supermarket retail shopping and its important determinants in the city of Lagos with the aid of participatory GIS technology.

The specific objectives of this study include:

- To develop a web-based survey using a Participatory GIS tool to measure customer satisfaction with supermarket retail shopping.
- To perform spatial analysis and determine the spatial pattern (if any) of satisfaction across the city.
- To determine, through spatial analysis, the most important determinants for customer satisfaction.

- To carry out a critical evaluation of the project

Design and methodology

This qualitative study employed an interpretive paradigm to give insight into customer satisfaction on supermarket retail shopping using Participatory GIS technology.

The research method and analysis were carried out using the conceptual model shown in figure 1 below.

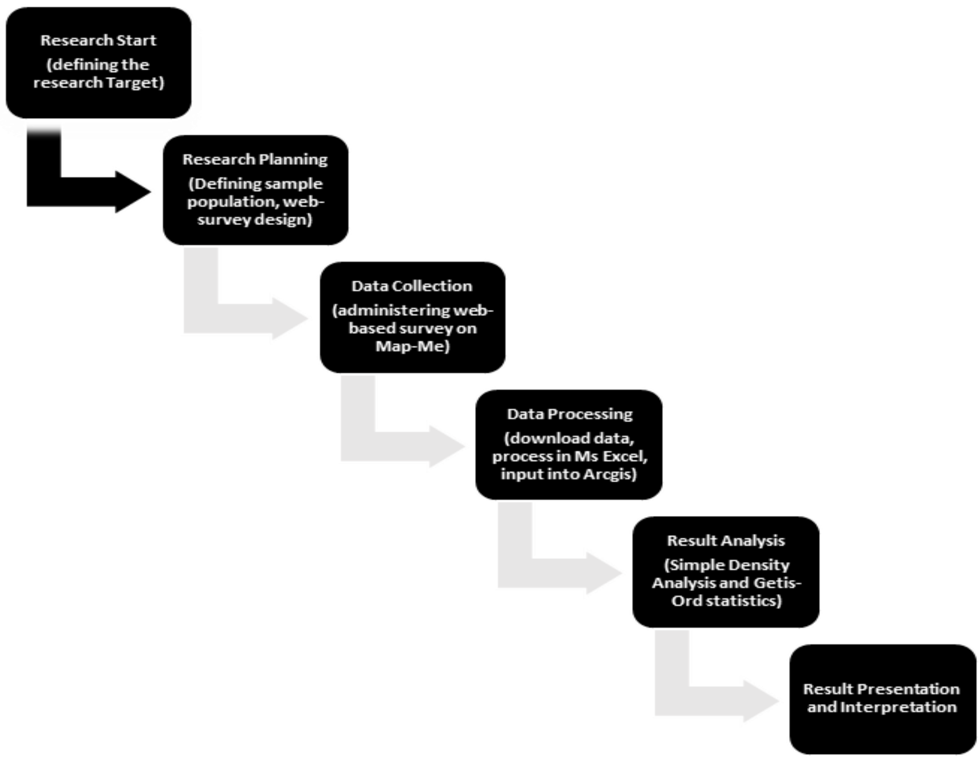

Figure 1: Conceptual Model for the research method and analysis

Sampling

Cooper and Schindler (2006) (cited in Arshad et al, 2014) stated that a whole population can be studied by studying a sample which can be said as the base of whole population. For this study, the population included all those who have used or are customers of supermarkets. Respondents were recruited through purposive sampling method (Zolkafli et al, 2017) via emails and phone contacts. A total of 76 respondent participated in the study.

Data Capture

Spraycan web-based Participatory Public GIS on Map-me platform (Huck et al, 2014) was used to design survey website. Spraycan captures imprecise notion of place from the public using an airbrush interface to add dots that are stored in a multi-point-attribute data format (Huck et al, 2015). This Map-me platform has been chosen because it is much easier for participant to give an idea of locations than for them to provide accurate location.

Individuals within the sample population were asked to log-on to the website to fill the questions and then use the brush to spray on a google base map of Lagos state to answer spatial questions. The questions from the Map-Me survey are given below, with one spatial question (in bold) accompanied by three non-spatial questions:

Where are the supermarkets you patronize?

How satisfied are you on a scale of 1-5 (5 being very satisfied) with supermarket retail shopping in Lagos State?

Which is the Most important factor that influences your choice from the following list: (1) Price; (2) Quality of Product; (3) Service quality; (4) Product assortment; (5) Store atmosphere; (6) store accessibility; (7) store reputation;

Which is the Least important factor that influences your choice from the following list: (1) Price; (2) Quality of Product; (3) Service quality; (4) Product assortment; (5) Store atmosphere; (6) store accessibility; (7) store reputation;

The survey question pertaining the level of satisfaction used a Likert scale of 1 to 5, where 1 will be least level of satisfaction. This facilitated the mapping of the response data (McCluskey, 2012). The results got from the individual responses to the survey was saved into different attribute tables for the blobs sprayed on the map, the users, questions and sub-questions which were downloaded into a comma separated *.csv file.

Analysis

The first set of analysis was on the spatial pattern of satisfaction as indicated by the distribution of the spray itself. The attribute table downloaded from the PGIS website survey was imported into a GIS software (Dunn, 2007). A Simple Density analysis was done to create density surface to reveal the overall pattern (Huck et al, 2015). The surface demonstrated the concentration of the attribute (in this case, satisfaction) in some areas. The original spray by the individuals and the density surface generated is shown in figures 3 and 4 below.

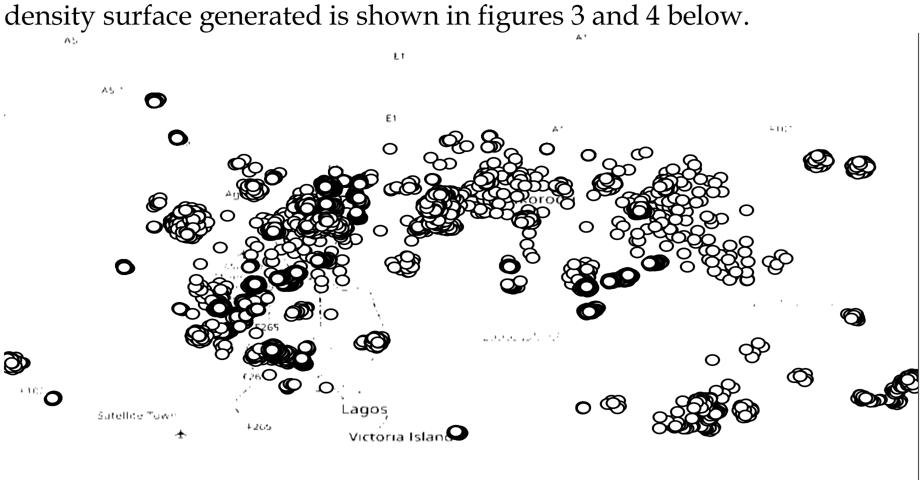

Figure 3: spray blobs from participants

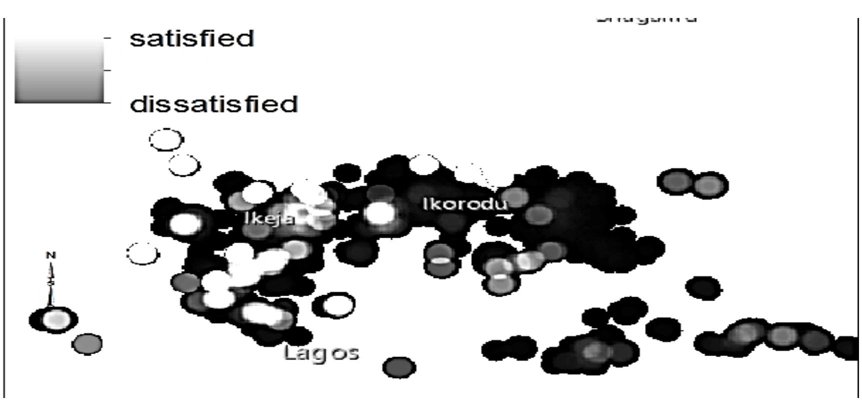

Figure 4: Density surface displaying satisfaction level from participants. Base map data taken from OpenStreetMap

In order to add additional confidence to the analysis, Getis-ord local statistics spatial autocorrelation technique (Huck et al, 2014) was used to identify statistically significant hotspots of spray patterns. The results show a Moran's I index of 0.47 and the z score of 535 which indicates clustering and that there is a less than 1% likelihood that this clustering pattern is as result of random choice. The hotspot map generated from the Getis-ord Gi* is shown in figure 5.

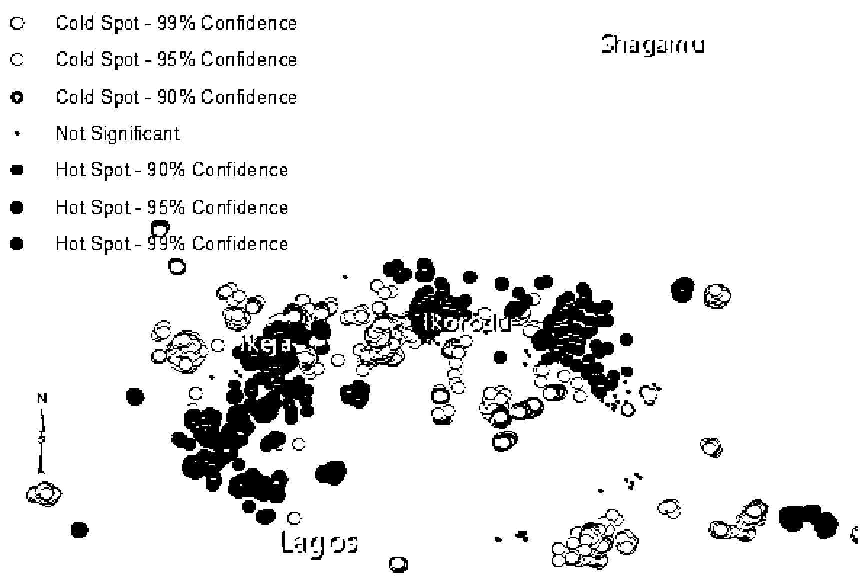

Figure 5: Hotspot map showing statistically significant hotspot of satisfaction

A qualitative analysis was carried out by consolidating the text-based responses given by the respondents on the questions of factors that influences choice of supermarket. A frequency analysis was done on the responses to determine the Most important factor and the least important determinant of choosing a supermarket to patronize (see Tables 1 and 2).

Factors	Frequency
Price	7
Product quality	17
Service quality	32
Product assortment	4
Store atmosphere	0
Store accessibility	7
Store reputation	9

Table 1: Most Important Factor of Choice of Supermarket

Factors	Frequency
Price	13
Product quality	1
Service quality	4
Product assortment	0
Store atmosphere	15
Store accessibility	17
Store reputation	26

Table 2: Least Important Factor of Choice of Supermarket

The two results were plotted on the map based on the actual spray by the respondents as given in figures 6 and 7. This gives insight into the spatial distribution and pattern of the individual factors that were considered most and least important.

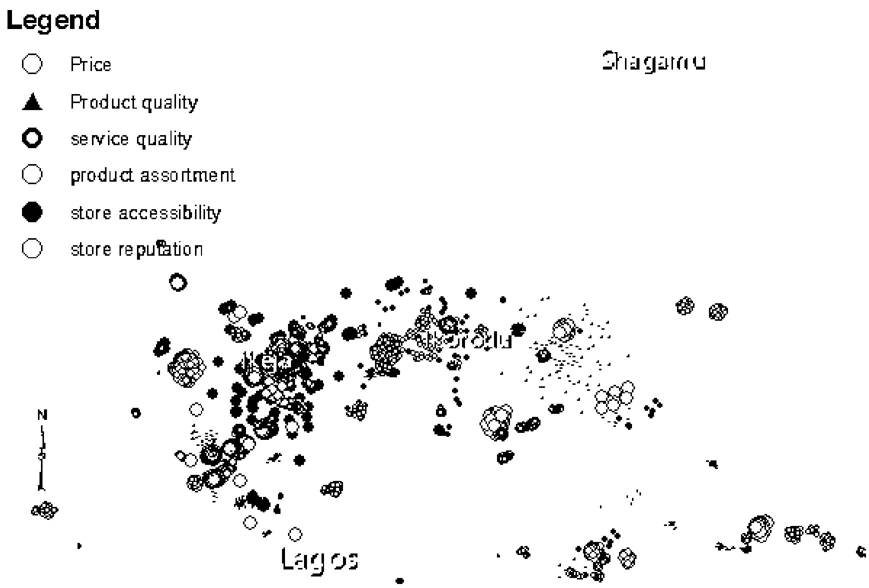

Figure 6: spatial distribution of most important factors

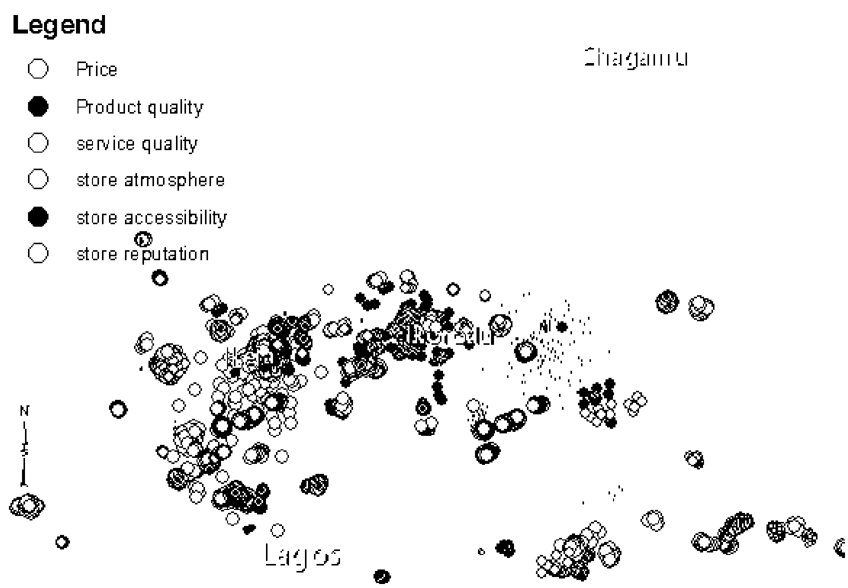

Figure 7: spatial distribution of least important factors

Conclusion

The study described here demonstrated how web-based Participatory GIS can be used to gain insights into spatial pattern of satisfaction and determinants of store selection among customers. The result of the work here would indicate that approach could be used in applications that needs public participation.

The study could be extended further by adding demographic dimension to it. This would allow the spatial distribution of the different demographic classes among the customers to be mapped. The visualization and mapping would allow for deeper understanding of the perceptions of the citizens.

References

Abubakar, B., Mavondo, F. and Clulow, V., 2001. Customer satisfaction with supermarket retail shopping. *Retrieved from*, *130*(95.71), p.8081.

AL-Ali, M., Bazin, N.E.N. and Shamsuddin, S., 2015. Key determinants of customer satisfaction: evidence from Malaysia grocery stores. *Journal of Theoretical & Applied Information Technology*, *74*(3).

Arshad, A., Sabir, H.M. and Zia ul Haq, M., 2014. Determinants of Super Store Customer Satisfaction in Pakistan. *Research Journal of Finance and Accounting*, *5*(11), pp.111-116.

Baybeck, B., 2002. Connecting Government to Citizens: Using GIS to Understand How Individuals Evaluate Local Government Performance. *Paper Prepared for the Korean Association of Public Administration meeting, Seoul, 18 October 19 October 2002*, pp.57-92.

Chhetri, Prem, and Robert J. Stimson. 2014. Merging survey and spatial data using GIS-enabled analysis and modelling. In Handbook of Research Methods and Applications in Spatially Integrated Social Science. Cheltenham, Northampton: Edward Elgar Publishing, Inc, pp. 551-534

CSSP, 2007. Improving quality and Access to Service and Support in Vulnerable Neighborhoods. *What The Research Tells Us, Centre for study of social policy*.

Dunn, C.E., 2007. Participatory GIS—a people's GIS?. *Progress in human geography*, *31*(5), pp.616-637.

Green, D. R. (2010). The role of public participatory geographical information systems (PPGIS) in coastal decision-making processes: an example from Scotland, UK. *Ocean and Coastal Management,* 53, 816-821.

Huck, J., Whyatt, D. and Coulton, P., 2015, April. Evaluating the Spray can: understanding participant interaction with a PPGIS. In *23rd GIS Research UK Conference*.

Huck, J.J., Whyatt, J.D. and Coulton, P., 2014. Spraycan: A PPGIS for capturing imprecise notions of place. *Applied Geography*, *55*, pp.229-237.

Igwe, S.R. and Chukwu, G.C., 2016. Demographic variables and retail choice pattern amongst urban Nigeria consumers. *Journal of Asian Business Strategy*, *6*(6), pp.125-135.

Kahila, M. and Kyttä, M., 2006, July. The use of web-based SoftGIS-method in the urban planning practices. In *Proceedings of the conference on urban conditions and life changes*.

Map-me.org. (2017). Map-Me. [online] Available at: http://map-me.org/sites/map.php [Accessed 19 September 2017].

McCall, M.K., 2004, April. Can participatory-GIS strengthen local-level spatial planning? Suggestions for better practice. In *7th International Conference on GIS for Developing Countries (GISDECO 2004)*.

McCall, M.K., Martinez, J. and Verplanke, J., 2015. Shifting boundaries of volunteered geographic information systems and modalities: learning from PGIS. *ACME: An International Journal for Critical Geographies*, *14*(3), pp.791-826.

McCluskey, J., 2012, *Integrating Social Survey Data and GIS to Determine the Needs of a Rural Community in a Geographic Context*, Directions Magazine, accessed 19 August 2017, < https://www.directionsmag.com/article/1859>.

Ramsey, K., 2010. Public Participation GIS. In Warf B (ed)Encyclopedia of Geography. Thousand Oaks, CA, Sage: 2305-08

Thương, N.T.T., 2016. Factors Influencing Customer Satisfaction Towards Supermarkets In Thai Nguyen City, Vietnam. *International journal of Economics, Commerce and Management*, *4*(2).

Tulloch, D., 2003, July. What PPGIS really needs is. In *Proceedings of the Second Annual Public Participation GIS Conference, 20–22 July, Portland, OR* (pp. 208-14).

Wenwei, T. and Tongtong, Z., 2010. An Empirical Research on Influencing Factors of Customer Experience of Retail Industry Aiming to Improve Customer Satisfaction: Taking Supermarket as an Example. In *Proceedings of the 7th International Conference on Innovation and Management*.

Zheng, F. and Lu, Y., 2012, August. Influencing factors of public satisfaction in local governments' overall performance evaluation in china. In *Business Intelligence and Financial Engineering (BIFE), 2012 Fifth International Conference on* (pp. 495-500). IEEE.

Zolkafli A, Brown G, and Liu Y, 2017. An evaluation of the capacity-building effects of participatory GIS (PGIS) for public participation in land use planning. Planning Practice & Research. 2017 May 23:1-7.

Consumers' Perception of Organic Foods

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Key words
Marketing, Consumer Purchase Decision, Organic Foods

Abstract

Consumers' demand for organic foods grows rapidly (Zepeda & Deal, 2009). Many publications have revealed that consumers' trust in the organic food certification. Labelling is one of major factors that influence consumers' willingness to buy organic products. Once they trust on a particular brand, they will blindly place their faith on the products (Bellows & Onyango, 2008). Sangkumchaliang and Huang (2012) confirmed similar results in their research. Various publications have demonstrated that the price of organic food is playing a major role in organic food purchases. Meanwhile, price seems to be the main barrier to purchase organic food (Padel & Foster, 2005; Hughner et al., 2007; Zanoli & Naspetti, 2002).

The aim of this research is to study consumers' perception and associated consumption patterns of organic foods. It also explores consumers' intention for future organic food consumption. It is important for marketers to develop a sustainable strategy to meet the consumers' demand for organic foods. The reasons why consumers buy organic foods will be discussed in this study. Data from a survey project will be presented. Product positioning, consumer decision making, and related ethical issues are discussed in this study as well. Several key observations should be noted in the study. The respondents observe that organic food is healthier than conventional food. Another significant finding is that most consumers deem that organic foods have higher nutritional value, higher safety standards, and are more environmental friendly. Most respondents purchase organic foods because of health, quality, safety, value, trust, and environmental consciousness. Moreover, they believe eating organic food can help them keep healthy and maintain their moral standards. Another important finding here is that some of the respondents are restrained from buying more organic food because of the price. Ethical consumers normally translate their concerns or attitudes toward society and environment into actual purchase and consumption behavior (De Pelsmacker, Driesen, & Rayp, 2005). Consumers who purchase organic food actually have put this into practice, as evidenced in this research. Many respondents of this research prefer to buy organic food products because of their ethical beliefs. Hence, marketers need to deliver positive information about their products through their corporate social responsibility to consumers.

Determinants of non-performing loans: evidence from commercial banks in Barbados

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Keywords
Bank-specific, Barbados, Commercial Banks, Determinants, Macroeconomic, Non-performing loans.

Abstract
The commercial banking sector is the primary form of financial intermediation in Barbados. It is the largest conduit for the mobilisation of domestic savings, main source of external capital for firms and key player in the payment system. With the onset of the global financial crisis in 2008, the financial indicators of the commercial banking sector worsened with credit quality in particular being noteworthy. The non-performing loans to total loans ratio increased from a historic low of 2.9% in 2007 to 12.9% in 2012. Given the adverse effect of non-performing loans on the financial performance of commercial banks, there has been a proliferation of studies on the determinants of non-performing loans over the years. This paper examines the bank-specific and macroeconomic determinants of non-performing loans of commercial banks in Barbados over the period 1991-2015. The empirical results indicate that the bank-specific factors: return on equity, return on assets, capital adequacy ratio and loan to deposit ratio are significant determinants of non-performing loans, while the macroeconomic variables exerting significant influence are GDP growth, unemployment and interest rate.

1. Introduction

The commercial banking sector is the primary form of financial intermediation in Barbados. It is the largest conduit for the mobilisation of domestic savings, main source of external capital for firms and key player in the payment system. With the onset of the global financial crisis in 2008, the financial indicators of the commercial banking sector worsened with credit quality in particular being noteworthy. The non-performing loans to total loans ratio increased from a historic low of 2.9% in 2007 to 12.9% in 2012; the figure subsequently declined to 10.8% at the end of 2015. The depressed economic conditions during the crisis and the challenges with macro-economic management introduced higher levels of uncertainty in the economy and a greater level of risk aversion among the household and business sectors. The banking system therefore experienced a significant slowdown in the demand for loans from 2009 to 2013.

Given the importance of loan growth and its management to the performance of the banking sector, the decrease in loans and advances, and increased credit impairments resulting from defaults ultimately had a negative impact on the profitability of the banks. Indeed, the return on equity of the banking sector declined from 15.6% in 2009 to its lowest value of 5.9% in 2012. The return on assets also experienced a declining trend over the period.

Given the adverse effect of non-performing loans on the financial performance and survivability of commercial banks, there has been a proliferation of studies on the determinants of non-performing loans over the years. Some studies were country specific, while others considered groups of countries in a specific region or internationally. Knowledge of the major influences on non-performing loans places banks in a position to control their upward movement, thereby restricting their constraining impact on bank performance. Also, understanding the influences of non-performing loans helps to ensure a sound and healthy banking system which is able to support economic growth.

In the case of Barbados, studies were undertaken by (i) Chase et al. (2005) who examined the macroeconomic determinants (3-month Treasury bill rate, inflation rate and GDP growth) of non-performing loans; (ii) Greenidge and Grosvenor (2010) who amplified the model of Chase et al. (2005) and replaced the 3-month Treasury bill rate with the average loan rate; (iii) Guy and Lowe (2011) who used both macroeconomic (inflation, GDP growth and the lending rate) and bank-specific (return on assets and loan to deposit ratio) factors; (iv) Belgrave et al. (2012) who examined the impact of specific industry-income shocks on non-performing loans using macroeconomic (unemployment and real interest rate) and institutional (efficiency, moral hazard, size and aggressive lending) factors; and Grosvenor and Guy (2013) who used both macroeconomic (inflation and GDP growth) and bank-specific (bank size and loan growth) factors to explain the impact of economic conditions on non-performing loans.

This paper focuses on extending the literature on the determinants of non-performing loans in Barbados by examining two additional variables, the return on equity and capital adequacy ratio. These variables are included based on the theoretical literature and their perceived importance in the Barbadian context.

The remainder of the paper is structured as follows: Section 2 focuses on the review of the theoretical and empirical literature on the determinants of non-performing loans for developing countries; Section 3 provides an overview of the commercial banking industry in Barbados; Section 4 deals with methodological and associated issues; Section 5 presents the empirical results which are then discussed in Section 6; and concluding remarks and areas for future research are provided in the final section.

2. Literature Review

There is no global standard to define non-performing loans at the practical level. It is recognised that what is appropriate in one country may not be suitable for another. However, a non-performing loan is generally defined as a sum of borrowed money for which the debtor has not made the scheduled payments (principal and/or interest) for at least ninety days. Once a loan is non-performing, the chances that it will be repaid in full are considered to be substantially lower.

In Barbados the standard loan classifications are defined as follows: Pass - loans with repayments in arrears up to one month; Special Mention - loans in arrears for one to three months; Substandard - loans owing for at least three months; Doubtful - unsecured portion of loans at least six months due; and Loss - unsecured portion of loans at least twelve months due. Non-performing loans comprise loans in the latter three categories and can be further differentiated according to the degree of collection difficulties.

2.1 Theoretical Analysis

The literature highlights that macroeconomic, bank-specific and institutional factors could affect non-performing loans. Among the indicators of the macro-economic environment are gross domestic product, inflation, real interest rate and unemployment rate. The bank-specific variables include return on assets, return on equity, capital adequacy ratio and loan to deposit ratio, whilst the institutional factors are explained through the moral hazard hypothesis, bad management hypothesis, bad management II hypothesis, skimping hypothesis and bad luck hypothesis.

Macroeconomic Factors

Gross Domestic Product (GDP) growth

Documented in the literature is a negative impact of GDP growth on non-performing loans. GDP growth reflects a positive economic environment which is beneficial for both businesses and households. In favourable economic conditions, incomes of households and businesses grow, and borrowers have sufficient funds to service their debts. This in turn contributes to lower non-performing loans. Conversely, when there is a slowdown in the economy the level of non-performing loans is expected to increase.

Inflation

The influence of inflation on non-performing loans is not clear-cut. Theoretically, inflation may have a negative impact on non-performing loans since higher inflation can enhance the loan payment capacity of borrowers by reducing the real value of outstanding debt. Conversely, since high levels of inflation are considered an indicator of macroeconomic instability, financial institutions will demand a higher risk premium resulting in higher interest rates (and interest payments). This situation leads to a reduction in borrowers' cash flow which lessens their ability to repay their loans.

Interest Rate

During periods of high interest rates, the rate of default borrowers is anticipated to increase and, hence, non-performing loans. Thus, interest rates are anticipated to have a positive impact on non-performing loans.

Unemployment

An important macroeconomic determinant of non-performing loans is unemployment in the economy. An increase in unemployment negatively affects the income of individuals which in turn increases their debt burden and decreases the probability of them paying their debts. Thus, unemployment is expected to have a positive influence on non-performing loans.

Bank-Specific Factors

Return on Equity (ROE)

The return on equity measures how much the bank is earning on its equity investments. ROE is anticipated to have a negative effect on non-performing loans. The justification for this result is the existence of better management of funds invested by shareholders via good agency relationships. In other words the better the ROE, the more effective is management in utilising shareholders' capital.

Return on Assets (ROA)

The return on assets indicates the ability of bank management to generate profits by utilising the available assets of the bank. Theoretically, the impact of ROA on non-performing loans is ambiguous. A positive impact can be rationalised through the behaviour of bank management. In order to increase short-term earnings, bank management may portray a wrong picture to investors relating to the future profitability and positive return prospects. As a consequence investors access funds from banks and invest in less profitable projects. This results in current good performance and profitability of the banks. However, because of the incorrect forecasting, returns on investment are not in accordance with investors' expectations, resulting in inability of investors to repay their loans and, hence, increases in non-performing loans in the future (Ahmad and Bashir, 2013a). Conversely, the negative influence of ROA on non-performing loans can rest on the view that banks with strong profitability have less incentive to generate income and are less inclined to engage in the granting of risky loans.

Capital Adequacy Ratio (CAR)

The capital adequacy ratio measures a bank's solvency and ability to absorb risk. It is used to protect depositors, and promote stability and efficiency in the financial system. Theoretically, the impact of CAR on non-performing loans is uncertain. On the one hand, banks with high levels of CAR may pursue opportunities more aggressively, which means increased risk taking leading to riskier credit portfolios (Demirguc-Kunt and Huizinga, 1999). Thus, CAR is expected to have a positive impact on non-performing loans. Conversely, via the moral hazard argument banks with low capital may be inclined to engage in risky lending, thus resulting in increased non-performing loans. This behaviour is more likely when deposit insurance schemes are in place. In this case, CAR is expected to exert a negative impact on non-performing loans.

Loan to Deposit (LTD) Ratio

The loan to deposit ratio is a commonly used statistic for assessing a bank's liquidity and it reflects the utilisation of funds policy of the bank. An increase in this ratio is indicative of the bank deploying more funds to loans. Such a situation reflects a less liquid position for the bank. The literature suggests that the LTD ratio has a positive effect on the level of non-performing loans. The justification for such a result is that the growth of customer deposits impacts positively on a bank's lending activity. Inefficiencies in the credit administration process in such circumstances can result in a higher level of non-performing loans.

Institutional Factors

Bad Management Hypothesis

Under the 'bad management' hypothesis, low measured cost efficiency is a signal of poor senior management practices, which apply to both day-to-day operations and to managing the loan portfolio. Subpar managers do not sufficiently monitor and control their operating expenses, and do not practice adequate loan underwriting, monitoring and control. Such managers may (i) have poor skills in credit scoring and, therefore, choose a relatively high proportion of loans with low or negative net present values, (ii) be less than fully competent in appraising the value of collateral pledged against the loans, and (iii) have difficulty monitoring and controlling the borrowers after loans are issued to assure that covenants are obeyed. This hypothesis predicts that cost efficiency will have a negative influence on non-performing loans.

Bad Management II Hypothesis

The 'bad management II' hypothesis indicates that substandard performance is positively associated with increases in future non-performing loans. This may be justified in a way analogous to the 'bad management' hypothesis by regarding past performance as a proxy for the quality of management.

Skimping Hypothesis

Under the 'skimping' hypothesis, the amount of resources allocated to underwriting and monitoring loans affects both loan quality and measured cost efficiency. Here, the critical decision of the bank lies in the trade-off between short-term operating costs and future loan performance problems. A bank maximizing long-run profits may rationally choose to have lower costs in the short run by skimping on the resources devoted to underwriting and monitoring loans, but bear the consequences of greater loan performance problems and the possible costs of dealing with these problems in the future. The reduced effort devoted to screening loan customers, appraising collateral, and monitoring and controlling borrowers after loans are issued makes the bank appear to be cost efficient in the short run because fewer operating expenses can support the same quantity of loans and other outputs. The stock of non-performing loans remains unaffected in the short run, but as times passes, a higher proportion of borrowers become delinquent on their loans and the inattention to the loan portfolio becomes apparent. Thus, under the skimping hypothesis the relationship between measured cost efficiency and non-performing loans is opposite to the bad management hypothesis, that is, skimping implies that measured cost efficiency impacts positively on problem loans.

Moral Hazard Hypothesis

The 'moral hazard' hypothesis is the classical problem of excessive risk-taking when another party is bearing part of the risk and cannot be easily charged for or prevented from risk-taking. Under this hypothesis, banks with relatively low capital respond to moral hazard incentives by increasing the riskiness of its loans portfolio, which results in higher non-performing loans on average in the future. Thus, under the moral hazard hypothesis, it is expected that low financial capital will result in high non-performing loans. Although the moral hazard hypothesis does not describe the relationship between measured cost efficiency and problem loans, it is used for several reasons. First, moral hazard gives an alternative explanation for non-performing loans, so the effects of measured cost efficiency on non-performing loans could be biased if the potential effects of capital were neglected. Second, moral hazard effects can magnify the impacts of the other hypotheses, and any of those hypotheses could be the primary cause of reduced capital and moral hazard incentives. Finally, as a leading theory of problem loans and bank failures, the moral hazard hypothesis has different policy implications than the other hypotheses.

Bad Luck Hypothesis

Under the 'bad luck' hypothesis, external events (for example, a local plant closing) precipitate an increase in problem loans for the bank. After the loans become past due or non-accruing, the bank begins to expend additional managerial effort and expense dealing with these problem loans. These extra operating costs include, but are not limited to, the additional monitoring of delinquent borrowers and value of their collateral; the expense of analysing and negotiating possible workout arrangements; the cost of seizing, maintaining, and eventually disposing of collateral if default later occurs; the additional cost of defending the bank's safety and soundness record to bank supervisors and market participants; any additional precautions taken to preserve the high quality of loans that are currently performing, which becomes more crucial for a bank in a perilous financial situation; and the diversion of senior management attention away from solving other operational problems. Most of these costs, especially those associated with loan workout and default, are incurred well after the increase in problem loans. Thus, under the bad luck hypothesis, we expect increases in non-performing loans to temporally precede decreases in measured cost efficiency. Importantly, under the bad luck hypothesis, the extra expenses associated with problem loans create the appearance, but not necessarily the reality, of lower cost efficiency. Faced with an exogenous increase in non-performing loans, even the most cost- efficient banks have to purchase the additional inputs necessary to administer these problem credits.

These hypotheses are not mutually exclusive. In an extreme case, the hypotheses could affect the same bank at the same time. For example, bad luck could befall a poorly managed bank that also happens to be skimping on loan monitoring expenses. Any loss of capital as a result of bad luck, bad management and skimping might cause the bank to respond to moral hazard incentives and take increased risks. Similarly, banks responding to moral hazard incentives may take increased risks by skimping.

2.2 Empirical Literature

The literature review focuses on empirical studies on the determinants of non-performing loans in developing economies. Some studies were conducted on the basis of individual countries, while others considered groups of countries in a specific region or internationally.

Brownbridge (1998) investigated the causes of non-performing loan in local banks in four African countries (Kenya, Uganda, Zambia and Nigeria) for the period 1985-1994. The results revealed that the main determinant of non-performing loans was insider lending. In the study three forces of insider lending were highlighted: over concentration in ownership, political pressure and under capitalization. Another important cause of non-performing loans was the interest rate charged to borrowers operating in the high-risk segment of the credit market.

Ranjan and Dhal (2003) examined the response of non-performing loans to bank size, terms of credit (maturity terms of credit, changes in cost terms of credit, credit orientation) and macroeconomic variables in public sector banks in India. The results indicated that the terms of credit variables have significant effects on the banks' non-performing loans in the presence of bank size induced risk preferences and macroeconomic shocks. The maturity terms of credit have a significant negative impact, indicating that higher term loans induce lower non-performing loans. Changes in cost terms of credit, that is, the difference between current cost and past cost conditions, have a positive impact on non-performing loans, implying that the expectation of higher interest rates induces changes in cost conditions which fuel further increases in non-performing loans.

Interestingly, the measure of credit orientation, defined by a bank's credit-to-deposit ratio relative to that of the industry, has a significant negative influence on non-performing loans, implying that borrowers attach considerable importance to relatively more credit (customer) oriented banks. Also, bank size, as measured by the ratio of a bank's assets to total banking sector assets was found to have a statistically significant negative impact on non-performing loans, indicating that the larger the bank the lower the level of non-performing loans. Finally, the growth variable has a negative influence on non-performing loans, suggesting that increased economic activity leads to lower financial distress of borrowers and, thus, lower non-performing loans for banks.

Another study on the Indian banking sector was conducted by Swamy (2012) who investigated the macroeconomic and indigenous determinants of non-performing loans using panel data for the period 1997 to 2009. The results indicated that the loan to deposit ratio and ROA have strong positive effects on non-performing loans, bank size has a strong negative effect, while real GDP growth rate, inflation, capital adequacy, bank lending, and savings growth have insignificant impact on non-performing loans. Prasanna (2014) also investigated the determinants of non-performing loans in the Indian banking system using panel data for the 2000 to 2012 period. The study found that growth rates in GDP, savings and per capita income have significant negative impact on non-performing loans, while the influence of interest rates and inflation was significantly positive. Exchange rates and stock market volatility exerted an inverse impact but it was insignificant.

Bercoff et al. (2002) investigated the determinants of non-performing loans for commercial and savings banks in Argentina using an accelerated failure time (AFT) model for the period 1993-1996. The findings revealed that bank size measured by assets has a positive effect on non-performing loans, while asset growth has a negative effect. Other variables such as operating cost, exposure to peso loans, credit growth, and foreign interest rate have negative effect on non-performing loans. In addition, the money multiplier, reserve adequacy, institutional characteristics and tequila effect have positive influence on non-performing loans.

Hu et al. (2004) analysed the relationship between the ownership structure and impaired loans of the banking sector in Taiwan covering the period 1996-1999. Variables used in the study were government shareholdings, size, entropy index for revenues, D1991 (1 if the bank was established after deregulation; 0 otherwise) and time. The results highlighted the following: (1) the rate of NPLs decreases as government shareholding in a bank rises (up to 63.51 percent), while thereafter it increases; (2) bank size is negatively related to the rate of NPLs; (3) revenue source diversification cannot effectively reduce the rate of NPLs; (4) rates of NPLs steadily increased from 1996 to 1999; and (5) banks established after deregulation, on average, have a lower rate of NPLs than those established before deregulation.

Fofack (2005) examined the determinants of non-performing loans for sixteen Sub-Saharan African countries using pseudo panel (unbalanced panel) models over the 1993 to 2002 period. The findings showed the macroeconomic variables, change in real effective exchange rate and real interest rate, have significant positive effect on non-performing loans, while the influence of GDP per capita was negative and significant. The only significant bank-specific variable was net interest margin which has an adverse impact on non-performing loans.

Boudriga et al. (2010) analysed the impact of bank-specific, business and institutional environmental factors on non-performing loans for a sample of forty-six banks from twelve countries in the Middle East and North Africa (MENA) region for the period 2002 to 2006. The results revealed that among the bank-specific factors, foreign participation coming from developed countries, credit growth and return on assets have significant negative influence on non-performing loans, while capital adequacy and loan loss provisions have a positive and significant impact. The results also highlighted the importance of the institutional environment in enhancing credit quality. Specifically, better enforcement of rule of law, sound regulatory quality, better control of corruption, and free voice and accountability were significant in reducing non-performing loans. With regards to the business environment, quality of information published by private and public credit bureaus, and legal rights were significant in reducing non-performing loans in the MENA countries.

Warue (2012) used multiple regression analysis to determine the effect of external factors, microfinance institutions' (MFIs) and self-help groups' (SHGs) specific factors on loan delinquency in MFIs in Kenya. A survey research design was used and a census of forty-nine MFIs was taken. The findings revealed a significant positive effect of the MFI factor (proxied by management information system) on loan delinquency. The self-help groups' specific factor (peer pressure) and the external factor (economic downturn) also have a positive and significant impact on loan delinquency. Akinlo and Emmanuel (2014) also contributed to studies done in Africa. The authors estimated a macroeconomic model for non-performing loans in Nigerian banks over the period 1981 to 2011. The results showed that in the long run, economic growth has significant negative impact on non-performing loans while the influence of credit to the private sector and exchange rate was positive and significant. In the short run, the significance of credit to the private sector and exchange rate was maintained, and the lending rate and stock market index were also main determinants of non-performing loans.

Using monthly data for the period 2007 to 2009, Adebola et al. (2011) employed the autoregressive distributed lag (ADRL) approach to examine the effects of macroeconomic determinants (industrial production index, interest rate, producer price index) on non-performing loans in Malaysian Islamic banks. The findings revealed that in the long run, interest rate (average lending rate) has significant positive effect on non-performing loans, while the impact of producer price index was negative and significant. The effect of the industrial price index was found to be positive but insignificant. The short-run results were generally similar to the long-run findings.

Using a dynamic panel data model, Kastrati (2011) examined the determinants of non-performing loans in fifteen transition economies (Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Georgia, Bulgaria, Croatia, Macedonia, Moldova, Montenegro, Kosovo, Romania, Serbia, Ukraine) for the period 1994 to 2009. The findings revealed that the macroeconomic variables, GDP growth and inflation, have significant negative impact on non-performing loans while competition in the banking sector, proxied by the number of banks, has a positive and significant effect. There was also evidence of persistence in the non-performing loans through the significantly positive coefficient of the lagged non-performing loans variable. In addition, the dummy variable for year 2009 has significant positive impact on non-performing loans. This result was in line with developments that characterized year 2009, especially the first part of the year, considering the start of the financial crisis in 2008, whose effects were mainly transferred during the year 2009.

De Bock and Demyanets (2012) assessed the determinants of non-performing loans for twenty-five developing economies over the period 1996 to 2010. The results from a dynamic panel regression indicated that GDP growth, currency depreciation against the US dollar, terms of trade and outflows of debt-creating capital have significant negative impact on non-performing loans. There was also evidence of persistence in the non-performing loans.

Ahmad and Bashir (2013a) investigated the bank-specific determinants of non-performing loans for thirty banks in Pakistan over the 2006 to 2011 period. The results showed that the loan to deposit ratio, return on assets, credit growth and reserve ratio have significant positive influence on non-performing loans. In another study Ahmad and Bashir (2013b) analysed the impact of macroeconomic variables on non-performing loans in Pakistan over the 1990 to 2011 period. The findings revealed that the impact of GDP growth, interest rate, inflation rate, exports and industrial production was negative and significant, while the consumer price index has significant positive effect on non-performing loans. The other variables unemployment rate, real effective exchange rate and foreign direct investment were insignificant in explaining variations in non-performing loans. Hassan et al. (2015) also conducted a study on Pakistan banks. Their results indicated that various bank-specific variables like credit assessment, credit monitoring and credit growth have significant effect on non-performing loans, whereas interest has weak significance. Also, social factors including political interference and bankers' incompetence have significant impact on non-performing loans.

Shingjergji (2013a) examined the impact of bank-specific factors on non-performing loans in the Albanian banking system over the 2002 to 2012 period. The results revealed that return on equity and loans to asset ratio have significant negative effect on non-performing loans, while the impact of total loans and net interest margin was positive and significant. The capital adequacy ratio was found to have insignificant influence on non-performing loans in the Albanian banks. In another study Shingjergji (2013b) assessed the impact of macroeconomic factors (GDP growth, inflation rate, interest rate, foreign exchange rate) on Albanian banks over the period 2005 to 2012. The findings indicated that GDP growth and foreign exchange rate have significant positive effect on non-performing loans while inflation has significant negative effect. The positive and statistically significant coefficient of the lagged non-performing loans variable was suggestive of persistence in non-performing loans in the banking system. Berhani and Ryskulov (2014) also studied the impact of macroeconomic variables (GDP growth, inflation rate, money supply (M2) annual growth rate, interest rate and unemployment rate) on non-performing loans in the banking system of Albania. The multiple regression analysis indicated that all variables except unemployment rate have negative impact on non-performing loans. However, all the variables were statistically insignificant.

Ouhibi and Hammami (2015) analysed the macroeconomic determinants of non-performing loans in the banking system of six Southern Mediterranean countries (Tunisia, Morocco, Egypt, Lebanon, Jordan and Turkey) for the 2000-2012 period. The result showed that the consumer price index and gross capital formation have significant negative impact on non-performing loans, while the effect of nominal exchange rate was positive and significant.

In a more recent study Rajha (2016) investigated the bank-specific and macroeconomic determinants of non-performing loans for twelve banks in Jordan over the 2008 to 2012 period. The empirical results revealed that economic growth and inflation have significant negative effect on non-performing loans, while the impact of the loans to asset ratio and dummy variable representing the global financial crisis was positive and significant. There was also evidence of persistence in the non-performing loans. The lending rate and bank size variables were insignificant in explaining movements in non-performing loans in the Jordanian banks.

Caribbean evidence

Studies undertaken on banking systems in the Caribbean have found varied explanations for the variations in non-performing loans. Khemraj and Pasha (2009) investigated the macroeconomic (GDP growth, inflation rate, real effective exchange rate) and bank-specific (loans to total assets ratio, credit growth, size, real interest rate) determinants of non-performing loans in the Guyanese banking sector for the 1994 to 2004 period using a panel dataset and a fixed effect model. The findings revealed that real effective exchange rate has significant positive impact on non-performing loans, while there was a significant inverse and instantaneous effect of GDP growth on non-performing loans. However, inflation was shown not to be an important determinant of non-performing loans in the Guyanese banking system. With respect to the bank-specific variables, real interest rates (measured as the difference between the weighted average lending rate and the annual inflation rate) and loans to asset ratio have significant positive impact on non-performing loans, while credit growth exerted significant negative influence on non-performing loans. The results also showed that large banks were not necessarily more effective in screening loan customers when compared to smaller banks, as evidenced by the insignificance of the bank size variable.

Chase et al. (2005) used ordinary least squares (OLS) to forecast non-performing loans in Barbados using quarterly data for the period 1996 to 2002. The explanatory variables considered were the 3-month Treasury bill rate, inflation rate, GDP growth and lagged non-performing loans. All of the explanatory variables were found to be significant. Greenidge and Grosvenor (2010) used quarterly data spanning the period 1996 to 2008 to forecast non-performing loans for five commercial banks operating in Barbados. The authors amplified the model presented by Chase et al. (2005) and replaced the 3-month Treasury bill rate with the weighted average loan rate. The results revealed that macroeconomic factors such as growth in real GDP, inflation and the weighted average loan rate have significant negative impact on the level of non-performing loans. There was also evidence of persistence in the non-performing loans.

Guy and Lowe (2011) contended that the model presented by Greenidge and Grosvenor (2010) produced inaccurate results. They noted the exclusion of the largest bank from their study due to a merger that took place in 2002. Therefore, the authors reconstructed the data and employed a balanced panel framework, utilizing quarterly data from the six commercial banks for the period 1996 to 2010. To create a comprehensive forecasting model of the commercial banks' non-performing loans, two variants of a dynamic panel framework were used: a pooled estimator and a heterogeneous fixed-effect estimator. The results indicated that GDP growth, inflation and lending rate have significant negative impact on non-performing loans, while loan growth, loan to deposit ratio and ROA were shown to be insignificant variables.

Belgrave et al. (2012) also added to the literature on non-performing loans in Barbados. Using a panel vector autoregressive (VAR) model and a database consisting of quarterly observations for the period 1996 to 2010, the authors examined the sensitivity of non-performing loans to shocks to six economic industries in Barbados. The industries included agriculture and fishing; construction, mining and quarrying; distribution; manufacturing; professional services and tourism. The results indicated some degree of heterogeneity in the response of non-performing loans to shocks to the six industries. For example, positive shocks to aggregate output of the distribution, professional and tourism industries led to an overall reduction in the level of stress in the financial system though the timing of responses differ across each industry. In addition, there was a positive relationship between non-performing loans and shocks to the construction, mining and quarrying industries. On the other hand, there was no evidence of a direct relationship between non-performing loans and shocks to the agriculture and manufacturing industries which are the two smallest industries. Based on the non-uniformity in the non-performing loans response to shocks to the various industries, the authors concluded that studies based on aggregate output shocks for Barbados could conceal differences in non-performing loan behaviour and can even lead to erroneous conclusions. They further noted that the significance of the direct impacts largely depends on the size of the industry in relation to GDP and total loans.

Grosvenor and Guy (2013) analysed non-performing loans in Barbados using a Markov Switching approach and quarterly data the period 1996 to 2011. The variables used in the study were inflation, average loan growth and GDP. The result showed a negative relationship between non-performing loans and GDP. The impact of GDP is greater in times of low non-performing loans (Regime 0) compared to periods of high non-performing loans (Regime 1). This implies that the rate at which non-performing loans decrease in periods of economic boom is higher than the pace at which non-performing loans grow during recessionary times. Also, mixed results were observed for inflation and loan growth. In Regime 0, inflation is negatively correlated with non-performing loans, while in Regime 1 a positive association is indicated, with both effects significant. Loan growth was found to have a positive insignificant relationship with non-performing loans in Regime 0 whereas the relationship is negative in Regime 1. The authors justified this result by stating that in periods of low non-performing loans, banks may become less stringent in their lending practices and lend to more risky borrowers, thereby causing the total loans portfolio and non-performing loans to increase.

Jordan and Tucker (2013) employed a vector error correction (VEC) model to examine the determinants of non-performing loans in the Bahamas for the period 2002 to 2011. The results revealed that real GDP growth has significant negative impact on non-performing loans, while the effect of private sector credit was positive and significant. These results were obtained for both the long run and dynamic specifications. There was also evidence of a small but statistically significant feedback effect from non-performing loans to output.

Rahaman et al. (2014) employed the Generalized Method of Moments approach to investigate the bank-specific (ROE, equity to assets ratio, loans to assets ratio, loan growth) determinants of non-performing loans in the commercial banking sector of Trinidad and Tobago. The results showed that the equity to assets and loans to assets ratios have significant positive impact on non-performing loans, while loan growth has significant negative influence. However, ROE was found to be insignificant in explaining movements in non-performing loans in the Trinidad and Tobago banking system.

Beaton et al. (2016) assessed the macroeconomic and bank-specific determinants of non-performing loans for thirty-four banks in the Eastern Caribbean Currency Union (ECCU) using quarterly data for the period 1996 to 2015. The results indicated that both global and country-specific macroeconomic developments affect non-performing loans in the ECCU. Specifically, growth in advanced economies has significant negative impact on non-performing loans, suggesting a positive spillover from global macroeconomic developments. Conversely, tourism growth (proxy for domestic economic activity) was found to have significant positive influence on non-performing loans, reflecting the inherent riskiness in lending to the tourism sector. Bank-specific variables were also found to be important determinants of non-performing loans. Exposure to the construction sector and household loans exerted significant positive influence on non-performing loans. On the other hand, the impact of profitability, captured by the ROA, credit to the private sector lagged and type of bank ownership (represented by a foreign bank dummy) was negative and significant. Further, the global financial crisis, captured via a dummy variable for 2008-2015, has significant positive effect on non-performing loans in the ECCU over the review period.

3. Commercial Banking Industry in Barbados

Commercial banking began in Barbados with the establishment of the colonial Bank (later to become Barclays Bank) in 1837. Indigenous banking began in 1978 with the opening of the Barbados National Bank. Today, however, the banking system comprises foreign-owned banks with headquarters in Canada, and Trinidad and Tobago (Table 1)

Since 2002 a series of changes have taken place in the banking industry resulting in the merger and acquisition of some commercial banks. As at 2017 the commercial banks licensed to operate in Barbados were the Bank of Nova Scotia, CIBC FirstCaribbean International Bank (a merger of Barclays Bank PLC and Canadian Imperial Bank of Commerce (CIBC)), First Citizens Bank (Barbados) Limited (formerly Bank of Butterfield), Republic Bank (Barbados) Limited (formerly the Barbados National Bank), and RBC Royal Bank (Barbados) Limited (a merger of Royal Bank of Trinidad and Tobago (RBTT) and Royal Bank of Canada). The mergers and acquisitions in the banking industry may have been in response to the increasing global pressures and the desire of these multinational corporations to expand market share, and enhance competitiveness and efficiency (Wood and Brewster, 2016). The banks and their majority shareholders have continued to achieve high levels of profitability as evidenced by the ratings given Standard & Poors and Moodys, respectively (Table 1).

Name	Majority Shareholder/ Headquarters	Local Rating (S&P)	Majority Shareholder's Rating (Moody's)
Bank of Nova Scotia	Bank of Nova Scotia/Canada	AAA	Aa2
Republic Bank (Barbados) Limited	Republic Bank/ Trinidad and Tobago	A	Baa1
First Citizens Bank (Barbados) Limited	First Citizens Bank/	A	Baa1

	Trinidad and Tobago		
CIBC FirstCaribbean International Bank	CIBC/Canada	AAA	Aa3
RBC Royal Bank (Barbados) Limited	Royal Bank of Canada/Canada	AAA	Aa3

Table 1: Ownership Structure and Rating of Commercial Banks in Barbados
Source: Central Bank of Barbados.

The banking industry in Barbados conforms to the theoretical requirements of oligopoly: only a few firms in the industry so that the actions of one can affect the profits of another, bank deposits and loans are homogenous commodities and the number of banks is restricted by barriers to entry like the dominant position of established banks and financial regulations (Wood, 2012).

Commercial banks dominate the financial system, accounting for 60% of total assets, 80% of total deposits and 72% of all lending (Central Bank of Barbados, 2014). Since 2000 most of the credit extended by the banks went to the personal sector, followed by tourism, distribution, professional and other services, and the government. Loans are heavily collateralized. Wood (1994) reported that in 1991 about 99% of loans allocated by the foreign-owned commercial banks were secured by some form of collateral and Howell (2014) found there was no material change in the situation in 2013.

Commercial banks in Barbados provide a range of products and services to their customers. Banking services include personal accounts, electronic banking, premium banking, and corporate and commercial banking. Mobile banking, retirement plans, mutual fund investments, automatic teller machines, credit and debit card technologies are also utilised by commercial banks. Some of the services have been introduced and developed in response to legislative changes within the sector and others due to customer erudition and advances in technology. Further, commercial banks have added small business units, wealth management services and merchant banking to their operations to cater to the needs of smaller enterprises, attend to their more discriminating clients and perform investment banking activities, respectively.

Over the years there have been other important developments in the financial sector which have changed the behaviour of banks. These developments include:

- Establishment of the Central Bank of Barbados which is the chief regulator of the banking system.
- Liberalisation of the weighted average loan rate as a means of mobilising savings in the economy and promoting commercial bank efficiency.
- Establishment of the Barbados Stock Exchange (BSE) which offers an alternative source of funds for corporate borrowers, in addition to providing new opportunities for investors seeking to earn more attractive returns than those available on saving accounts.
- Development of the mutual funds industry which provides an alternative to the traditional saving accounts offered by banks.
- Rapid expansion of the credit union movement.
- Removal of the minimum savings rate that signalled the end of a long-established policy of structured interest rates on loans and deposits.

The commercial banking sector has weathered the global financial crisis and local recession relatively well, with capital adequacy ratios remaining well above international guidelines and the statutory requirement of 8%. Furthermore, the banks maintained a strong liquidity position in the post crisis period (Wood and Brewster, 2016). However, the main impact of the economic downturn has been an increase in loan delinquency and weakened credit quality. The non-performing loans to total loans ratio increased from a low of 2.9% in 2007 to 12.9% in 2012 before declining to 10.8% at the end 2015. While the bulk of the non-performing loans are in the substandard category, there has been a notable increase in doubtful loans tied to the overall macroeconomic conditions.

4. Methodology and Data Issues

The paper investigates the determinants of non-performing loans in commercial banks in Barbados. A multiple regression model was utilised which includes a number of macroeconomic and bank-specific variables. The macroeconomic variables are GDP growth, inflation rate, unemployment rate and interest rate, while the bank-specific variables are ROE, ROA, capital adequacy ratio and loan to deposit ratio. The choice of variables for the model was influenced by the literature review, particularly the research undertaken on non-performing loans in the commercial banking system of Barbados. However, we extend the previous work through the inclusion of the ROE and capital adequacy ratio. These variables were considered based on their use in studies in other developing economies and their perceived importance in a Barbadian context.

Accordingly, the estimated model is as follows:

$$\ln NPL = f(GDPGR, \ln INF, \ln UR, \ln RIR, \ln ROE, \ln ROA, \ln CAR, \ln LTD)$$

where NPL is the non-performing loans ratio, GDPGR is the growth rate of gross domestic product, INF is the inflation rate, UR is the unemployment rate, RIR is the real interest rate, ROE is the return on equity, ROA is the return on assets, CAR is the capital adequacy ratio, LTD is the loan to deposit ratio and ln is the natural logarithm. The methodology for calculating the variables and their anticipated impact on non-performing loans are given in Table 2.

The study uses aggregate annual data for the period 1991 to 2015 which were obtained from the Central Bank of Barbados. Manual variable calculation was done with the assistance of Microsoft Excel and the econometric model was estimated using SPSS. Descriptive statistics were derived in order to summarise the data with the generation of means, standard deviations, minimum and maximum values.

5. Empirical Results

The summary statistics and trends for the variables are presented in Table 3 and Figures 1 to 8 in the Appendix, respectively. All variables except ROE and CAR have twenty-five observations.

5.1 Descriptive Statistics

The non-performing loans ratio declined steadily until 2000 after reaching a high of 13.2% at the end of 1993. This decline can be attributed to eight years of growth in the Barbadian economy from 1993 to 2000 (Figure 1). The quality of the loan portfolio weakened in 2001 which was in line with the contraction of GDP by 2.1% during that year.

Variables	Definition	Anticipated Impact
NPL	Ratio of non-performing loans to total loans	
GDPGR	$\frac{GDP_t - GDP_{t-1}}{GDP_t} \times 100$	(-)
INF	$\frac{CPI_t - CPI_{t-1}}{CPI_{t-1}} \times 100$ where CPI is the consumer price index	(+)(-)
UR	Ratio of unemployed persons to the total labour force	(+)
RIR	The weighted average lending rate	(+)
ROE	Ratio of profits to total equity	(-)
ROA	Ratio of profits to total assets	(+)(-)
CAR	Ratio of total equity to total assets	(+)(-)
LTD	Ratio of loans to deposits	(+)

Table 2: Summary of variables used in regression model
Source: Authors' compilation

Determinants	Observations	Mean	Standard Deviation	Maximum	Minimum
Non-performing loans Ratio	25	8.45	3.56	13.20	2.90
GDP Growth	25	0.99	2.79	5.67	-5.70
Inflation Rate	25	3.45	2.94	9.43	-1.27
Unemployment Rate	25	12.93	4.95	25.60	7.40
Interest Rate (Weighted Average)	25	10.22	2.11	15.00	6.84
Return on Equity	22	25.81	10.52	36.60	5.90
Return on Assets	25	1.62	0.53	2.60	0.70
Capital adequacy Ratio	21	17.40	2.02	21.00	14.60
Loan to Deposit Ratio	25	62.43	6.00	73.60	51.20

Table 3: Summary of Descriptive Statistics
Source: Authors' compilation using SPSS

The economic decline resulted from some sectors grappling with adjustment efforts to cope with trade liberalisation and the negative spillover effects of a depressed world economy. As early as 2002 requests for the restructuring of loans were being realised by banks as they started to see an increase in loan defaults by borrowers (IMF, 2003). Economic expansion during the period 2003 to 2007 contributed to an improvement in the quality of loans, with the non-performing loans ratio declining from 8.2% to 2.9% during those years. However, with the Barbadian economy being impacted negatively by the global financial crisis, there was a reversal in the trend in non-performing loans (Figure 1). The ratio increased steadily to a level of 12.9% in 2012. With modest recovery in the economy since 2012 there has been a slight decline in the non-performing loans ratio to 10.8% in 2015.

The inflation rate averaged 3.45% over the review period. The highest level of 9.43% was recorded in 2011 (Figure 2) which can be attributed to the pass-through effects of the increase in indirect taxes in late 2010 coupled with higher import prices, particularly for fuel (Central Bank of Barbados, 2011). The economic expansion experienced by the Barbadian economy between 1993 and 2000 was reflected in a decline in the unemployment rate from 25.6% to 9.3% over the period (Figure 3). The rate increased to 10.3% in 2002, before falling to its lowest level of 7.4% in 2007. However, there were increases in the unemployment rate since 2008 as the country grappled with the effects of the global financial crisis. Over the review period the rate of interest (weighted average lending rate) averaged 10.22%, with the highest level of 15% recorded in 1991 and the lowest at 6.84% in 2015 (Figure 4). From 1991 to 2003 the interest rate remained at levels above 10%. In 2004, the interest rate fell by 0.3 of a percentage point to 9.83% as a result of the Central Bank cutting the minimum deposit rate from 2.5% to 2.25% and lowering the minimum securities requirement of commercial banks from 16% to 12% of domestic deposits. However, in 2005 the weighted average lending rate rose to 10.63% as a result of the action of the Central Bank to increase the bank rate (interest rate commercial banks are charged on short-term loans) from 7.5% to 10%. This action reflected the tight monetary policy stance adopted by the Central Bank in an effort to curb credit demand and thereby reduce the pressure on the Net International Reserves (NIR). Since 2007 the interest rate has remained below 10%, reflecting a softer monetary policy by the Central Bank and the commercial banks' response to the adverse impact of the global financial crisis.

Commercial banks in Barbados remained relatively profitable from 1991 to 2000, with the ROE fluctuating between 34% and 38% (Figure 5). Profitability declined over the next three years as indicated in the fall of the ROE to 21% in 2003. There was a subsequent increase in the ROE to 27.6% in 2006. However, because of the weak economic environment caused by the financial crisis, which resulted in an increase in delinquency and deterioration in credit quality, there was a decline in the profitability and performance of banks in the post 2006 period. The ROE declined to 5.9% in 2012. The profitability of the banks in the 1990s was also reflected in the ROA which fluctuated between 1.3% and 2.2% (Figure 6). Over the next four years the ROA averaged 2.3%. There was a reversal in the trend of ROA in the post financial crisis period; the ROA recorded its lowest value of 0.8% in 2013 before recovering slightly to 1.0% in 2015. The capital adequacy ratio for the commercial banks consistently surpassed the regulatory requirement of 8%. The CAR recorded a minimum value of 14.6% in 2006 and a maximum value of 21% in 2012 (Figure 7). This indicates that the commercial banks were well-capitalised during the review period. The loan to deposit ratio is a measure of liquidity and over the review period fluctuated from a low of 51.2% in 1996 to a high of 73.6% in 2012 (Figure 8). The LTD declined by 4.3% percentage points to 69.3% in 2013 and further to 66.4% in 2015. The latter decline may have resulted from the Central Bank's decision in April 2015 to discontinue its policy of setting the minimum savings deposit rate. This policy shift to market-determined rates resulted in broad-based reductions in deposit rates given the oligopolistic nature of the commercial banking industry in Barbados. Such behaviour on the part of commercial banks has resulted in some customers switching their deposits to local credit unions where the returns are relatively higher.

5.2 Model Results

Determinants	Coefficient	P> [T]
Constant	12.57	0.000
GDP Growth	-0.182	0.000*
Inflation Rate	0.019	0.907
Unemployment Rate	0.485	0.000*
Interest Rate	-0.631	0.000*
Return on Equity	-0.679	0.000*
Return on Assets	-0.469	0.001*
Capital adequacy Ratio	0.496	0.001*
Loan to Deposit Ratio	0.334	0.028**
R^2 0.822		
Adjusted R-Square 0.806		
F-statistic 10.624		
Prob (F-statistic) 0.000		
*significant at the 1% level.		
**significant at the 5% level.		

Table 4: Results of the regression model
Source: Authors' compilation using SPSS

Table 4 shows the R-squared which indicates the proportion of variability in the dependent variable which is explained by the regression model. The result indicates that the estimated model explains 82.2% of the variation in the non-performing loans ratio. Moreover, when R-squared is adjusted for positive bias 80.6% of the variation in the non-performing loans ratio is due to the explanatory variables. These values are indicative of a good fit of the model to the data. When tested using the Analysis of Variance (ANOVA) method at the 5% significance level, the model is also shown to be statistically significant as indicated by the F-statistic of 0 which is less than the p-value of 0.05, thus confirming that the regression is highly explained.

The significance of individual variables in explaining the movements of the non-performing loans ratio over the review period can be tested using the probability value reported in the last column on Table 4. With the exception of the inflation rate, all other variables have a significant impact on the non-performing loans ratio. Of the macroeconomic variables, the interest rate has the largest impact on the non-performing loans ratio with a coefficient of -0.631; whilst the bank-specific variable exerting the greatest influence is the return on equity with a coefficient of -0.679.

6. Discussion of Findings

The results show that GDP growth has a significant negative impact on non-performing loans. This finding indicates that an improvement in the real economy enhances the debt-servicing capacity of the borrower, which in turn contributes to lower non-performing loans. Such a result was anticipated and supports many previous studies including Ranjan and Dhal (2003), Fofack (2005), Chase et al. (2005), Khemraj and Pasha (2009), Greenidge and Grosvenor (2010), Guy and Lowe (2010), Jordan and Tucker (2013) and Prasanna (2014). Inflation was shown to have a negative and insignificant impact on non-performing loans of commercial banks in Barbados. This result corroborates the studies by Khemraj and Pasha (2009) and Berhani and Ryskulov (2014) but is at variant with the findings of Guy and Lowe (2011), Kastrati (2011), Shingjergi (2013b), and Rajha (2016) who obtained a significant impact of inflation on the level of non-performing loans.

Consistent with the theory, the unemployment rate exerts a significant positive influence on non-performing loans. Unemployment negatively affects the cash flow of households and businesses, increase their debt burden and prohibits them from meeting their financial obligations. The interest rate (weighted average lending rate) was found to have a significant negative influence on non-performing loans. This unanticipated result supports previous studies by Greenidge and Grosvenor (2010), Guy and Lowe (2011) and Ahmad and Bashir (2013b) and suggests that an increase in loans rates causes a reduction in loan growth and therefore a decrease in the level of non-performing loans. The result is however contrary to the findings of Fofack (2005), Khemraj and Pasha (2009), Adebola (2011) and Prasanna (2014).

All the bank-specific variables in the model were statistically significant. The negative and significant impact of ROE on the levels of non-performing loans indicates the existence of sound management of funds invested by shareholders via good agency relationships in commercial banks in Barbados. Furthermore, the result is supportive of the bad management hypothesis as bad management leads both to riskier activities and weak financial performance. The negative influence of ROE on non-performing loans corroborates the previous finding of Shingjerji (2013a) in the case of Albanian banks. The significant negative impact of the ROA on non-performing loans substantiates the view that risk taking is reduced in banks exhibiting high levels of performance. The result is also supportive of the bad management hypothesis and accords with the findings of Boudriga et al. (2010) and Beaton et al. (2016). However, the result is contrary to the significant positive effect of ROA on non-performing loans found by Swamy (2012) and Ahmad and Bashir (2013a).

The positive and significant impact of the CAR on non-performing loans is an interesting result given that commercial banks in Barbados consistently maintain a CAR well above the minimum 8% threshold. The result, however, supports the finding of Godlewski (2004) that regulatory pressure may not be the most appropriate regulatory device to mitigate excessive risk taking by banks in emerging markets. Indeed, Demirguc-Kunt and Huizinga (1999) noted that larger capital stores result in banks pursuing opportunities more aggressively, which means increased risk taking with the consequential result of higher non-performing loans. Our finding is supportive of Boudriga at al. (2010) and Rahaman et al. (2014), but contrary to Swamy (2012) and Shingjerji et al. (2013a) who found CAR to be negative and insignificant in their studies.

The empirical results indicate that the LTD has a significant positive effect on non-performing loans. This finding suggests that with the growth in deposits banks engage in extensive lending, which leads to an increase in bank lending relative to deposits. Such aggressive lending behaviour results in banks allocating funds to low quality borrowers, thereby increasing the riskiness of the loan portfolio and the level of non-performing loans. The result supports the previous findings of Swamy (2012) and Ahmad and Bashir (2013a), and is stronger than the finding of Guy and Lowe (2011) who found a positive but insignificant impact of LTD on non-performing loans for commercial banks in Barbados.

7. Conclusion

This paper examined the bank-specific and macroeconomic determinants of non-performing loans of commercial banks in Barbados using annual data for the period 1991 to 2015. Based on the findings, the bank-specific factors return on equity, return on assets, capital adequacy ratio and loan to deposit ratio are significant determinants of non-performing loans, while the macroeconomic variables exerting significant influence are GDP growth, unemployment and interest rate.

Some important conclusions emerge from the empirical results. First, commercial banks should pay close attention to several factors when granting loans in order to restrict the level of non-performing loans. Specifically, banks should use macroeconomic conditions such as economic growth, unemployment and interest rate in predicting the level of non-performing loans. The adverse impact of GDP growth (and positive impact of unemployment) on credit quality means that banks should take precautionary measures against the expansion of credit during economic downturns. Thus, they should allocate credit more efficiently by concentrating lending on clients with good credit records and collateral security in order to reduce the incidence of default and level of non-performing loans. Restoration of growth in the economy through carefully designed economic policies by the government will undoubtedly increase the level of employment with the consequential impact of reducing the level of non-performing loans. Second, the banks should be mindful of the adverse impact of the interest rate on non-performing loans and, hence, should continue to employ sound screening procedures for loan applicants. Third, the significant negative influence of ROE and ROA on non-performing loans indicates the importance of managerial performance in the banks achieving good credit portfolios. Thus, the banks should continue to aim for healthy profitability positions. Fourth, the positive impact of CAR on non-performing loans indicates that well-capitalised banks in Barbados are able to utilise their capital to absorb the risk associated with their loan portfolios. Indeed, the Central Bank of Barbados during 2013 reported that various stress tests were undertaken to determine the impact of credit risk on the capital adequacy of banks and the results indicated that the banks remained solvent even in the face of sizeable economic shocks. Finally, the significant positive impact of LTD on non-performing loans implies that banks should not utilise an extensive lending policy in order to deploy their deposits since it leads to an increase in the LTD ratio and increasing riskiness in the loan portfolio. They should use more detailed methods in determining credit worthiness and also seek safer alternative investments when deploying increased levels of deposits.

Though the study produced some encouraging results, it can be extended in a few important ways. First, the influence of a wider range of bank-specific (for example, size, credit growth, loan size) and macroeconomic (for example, money supply growth, gross capital formation, global macroeconomic developments) variables on non-performing loans can be considered in the future. It would also be useful to investigate the impact of social and cultural factors, and the institutional environment on non-performing loans. Further, incorporating structural breaks into the analysis can be explored. The financial crisis commencing in late 2007 may represent a structural break affecting the interrelations between non-performing loans and their determinant factors. Second, a methodological approach combining quantitative and qualitative approaches could be utilised in future studies on non-performing loans. Third, studies could be undertaken at a disaggregated level by decomposing loans by specific purpose (commercial, residential, and real estate mortgages), and by examining the interactions and relationships between non-performing loans and different types of borrowers, namely: individuals/households, small and medium-sized enterprises, and corporate borrowers. Fourth, it would also be useful if bank-level data are used in order to identify firm-specific issues and recommend tailored solutions. Fifth, the research is based on a single country. Future empirical work on the determinants of non-performing loans can be conducted on a Caribbean-wide basis or may consider a panel of Caribbean and other developing or developed economies. Finally, investigating the procedures that banks undertake to handle problem loans is an area of future research.

References

Adebola, S., Yusoff, W. and Dahalan, J. (2011). An ARDL Approach to the Determinants of Non-performing Loans in Islamic Banking System in Malaysia. *Kuwait Chapter of Arabian Journal of Business and Management Review*, 1(2), pp. 20-30.

Ahmad, F. and Bashir, T. (2013a). Explanatory Power of Bank Specific Variables as Determinants of Non-performing Loans: Evidence from Pakistan Banking Sector. *World Applied Sciences Journal*, 22(9), pp. 1220-1231.

Ahmad, F. and Bashir, T. (2013b). Explanatory Power of Macroeconomic Variables as Determinants of Non-performing Loans: Evidence from Pakistan. *World Applied Sciences Journal,* 22(2), pp. 243-255.

Akinlo, O. and Emmanuel, M. (2014). Determinants of Non-performing Loans in Nigeria. *Accounting and Taxation*, 6(2), pp. 21-28.

Beaton, K., Myrvoda, A. and Thompson, S. (2016). Non-performing Loans in the ECCU: Determinants and Macroeconomic Impact. *IMF Working Paper,* WP/16/229.

Belgrave, A., Guy, K. and Jackman, M. (2012). Industry Specific Shocks and Non-Performing Loans in Barbados. *The Review of Finance and Banking,* 4(2), pp. 123-133.

Bercoff, J., Giovanni, J. and Grimard, F. (2002). *Argentinean Banks, Credit Growth and the Tequila Crisis: A Duration Analysis.* Available at: Unpublished (Accessed: 5th May 2016).

Berhani, R. and Ryskulov, U. (2014). Macroeconomic Determinants of Nonperforming Loans in Albanian Banking System. International Conference on Economic and Social Studies, International Burch University, Sarajevo.

Brownbridge, M. (1998). Financial Distress in Local Banks in Kenya, Nigeria, Uganda and Zambia: Causes and Implications for Regulatory Policy. *Development Policy Review,* 16(2), pp. 173-188.

Boudriga, A., Taktak, N. and Jellouli, S. (2010). Bank Specific, Business and Institutional Environment Determinants of Banks Nonperforming Loans: Evidence from MENA Countries. *Economic Research Forum Working Paper* No. 547.

Central Bank of Barbados Annual Report 2011. Available at: *http://www.centralbank.org.bb.* Central Bank of Barbados Financial Stability Reports 2011, 2014, 2015. Available at: *http://www.centralbank.org.bb.*

Chase, K., Greenidge, K., Moore, W. and Worrell, D. (2005). Quantitative Assessment of a Financial System-Barbados. *IMF Working Paper,* WP/05/76.

De Bock, R. and Demyanets, A. (2012). Bank Asset Quality in Emerging Markets: Determinants and Spillovers. *IMF Working Paper*, WP/12/71.

Demirguc-Kunt, A. and Huizinga, H. (1999). Determinants of Commercial Bank Interest Margins and Profitability: Some International Evidence. *The World Bank Economic Review*, 13(2), pp. 379-408.

Fofack, H. (2005). Non-performing Loans in Sub-Saharan Africa: Causal Analysis and Macroeconomic Implications. *World Bank Policy Research Working Paper* 3769.

Godlewski, C. (2004). Bank Capital and Credit Risk Taking in Emerging Economies. *Journal of Bank Regulation*, 6(2), pp. 128-145.

Greenidge, K. and Grosvenor, T. (2010). Forecasting Non-performing Loans in Barbados. *Business, Finance & Emerging Economies,* 5(1), pp. 79-108.

Grosvenor, T. and Guy, K. (2013). A Regime Switching Approach to Analysing Bank Non-Performing Loans in Barbados. *Central Bank of Barbados Working Paper,* WP/13/7.

Guy, K. and Lowe, S. (2011). Non-performing Loans and Bank Stability in Barbados. *Central Bank of Barbados Economic Review,* XXXVII (3), pp. 77-99.

Hassan, H., Ilyas, M. and Rehman, C. (2015). Quantitative Study of Bank-Specific and Social Factors of Non-Performing Loans of Pakistani Banking Sector. *International Letters of Social and Humanistic Sciences,* 43, pp. 192-213.

Howell, R. (2014). *Credit Risk Among Banks Operating in Barbados.* Masters Dissertation, The University of the West Indies, Cave Hill Campus.

Hu, J., Li, Y. and Chiu, Y. (2004). Ownership and Non-performing loans: Evidence from Taiwanâ Banks. *The Developing Economies,* 42(3), pp. 405-420.

International Monetary Fund (2003). *Barbados: Financial Stability Report.* Washington D.C: International Monetary Fund.

Jordan, A. and Tucker, C. (2013). Assessing the Impact of Non-performing Loans on Economic Growth in the Bahamas. *Monetaria,* 1(2), pp. 372-400.

Kastrati, A. (2011). The Determinants of Non-Performing Loans in Transition Countries. *Financial Stability Report,* Central Bank of the Republic of Kosovo (June), pp. 97-102.

Khemraj, T. and Pasha, S. (2009). The Determinants of Non-Performing Loans: An Econometric Case Study of Guyana. The Caribbean Centre for Money and Finance Bi-annual Conference on Banking and Finance, St. Augustine, Trinidad.

Ministry of Finance and Economic Affairs (1995). *Barbados Economic and Social Report.* Available at: *http://www.economicaffairs.gov.bb/archive-detail.php?id=444* (Accessed: 20th August 2016).

Ministry of Finance and Economic Affairs (2005). *Barbados Economic and Social Report.* Available at: *http://www.economicaffairs.gov.bb/archive-detail.php?id=444* (Accessed: 20th August 2016).

Ministry of Finance and Economic Affairs (2015). *Barbados Economic and Social Report.* Available at: *http://www.economicaffairs.gov.bb/archive-detail.php?id=444* Accessed: 20th August 2016).

Ouhibi, S. and Hammami, S. (2015). Determinants of Non-performing Loans in the Southern Mediterranean Countries. *International Journal of Accounting and Economics Studies,* 3(1), pp. 50-53.

Prasanna, P. (2014). Determinants of Non-performing Loans in the Indian Banking System. 3rd International Conference on Management, Behavioral Sciences and Economics Issues ((ICMBSE'2014), Singapore, pp. 115-118.

Rahaman, A., Baksh, T., Mahabir, R. and Smith, D. (2014). Determinants of Non-Performing Loans in Trinidad and Tobago: A Generalized Method of Moments (GMM) Approach Using Micro LevelData. Available at: *htpp://www.ccmf-uwi.org* (Accessed: 4th May 2016).

Rajah, K. (2016). Determinants of Non-performing Loans: Evidence from the Jordanian Banking Sector. *Journal of Finance and Bank Management*, 4(1), pp. 125-136.

Ranjan, R. and Dhal, S. (2003). Non-performing Loans and Terms of Credit of Public Sector Banks in India: An Empirical Assessment. *Reserve Bank of India Occasional Papers,* 24(3), pp. 81-121.

Shingjergji, A. (2013a). The Impact of Bank Specific Variables on the Non Performing Loans Ratio in the Albanian Banking System. *Research Journal of Finance and Accounting*, 4(7), pp. 148-152.

Shingjergji, A. (2013b). The Impact of Macroeconomic Variables on the Non Performing Loans in the Albanian Banking System During 2005-2012. *Academic Journal of Interdisciplinary Studies*, 2(9), pp. 335-339.

Swamy, V. (2012). Impact of Macroeconomic and Endogenous Factors on Non-Performing Bank Assets. *The International Journal of Banking and Finance,* 9(1), pp. 27-47.

Warue, B. (2012). Factors Affecting Loan Delinquency in Microfinance Institutions in Kenya. *International Journal of Management Sciences and Business Research,* 1(12), pp. 27-48.

Wood, A. (1994). Bank Lending to Firms and the Nature of Credit Rationing in Barbados. *Money Affairs*, 7(2), pp. 109-136.

Wood, A. (2012). The Development of the Barbadian Financial System: 1966-1990. *International Journal of Business and Social Science,* 3(6), pp. 61-73.

Wood, A. and Brewster, R. (2016). The Impact of the Global Financial Crisis on the Performance of Commercial Banks in Barbados. *Journal of Management and World Business Research*, 13(1), 13-27.

Appendices

Figure 1 – Graphs showing trends of nonperforming loans ratio and growth in gross domestic product from 1991-2015

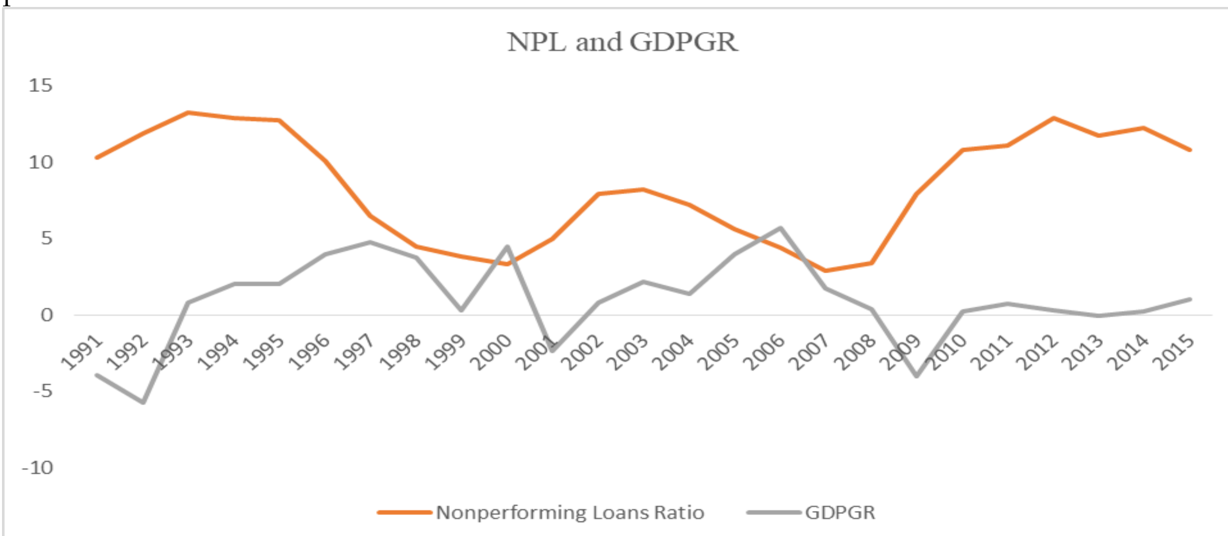


Figure 2 – Graph showing trend of inflation from 1991-2015

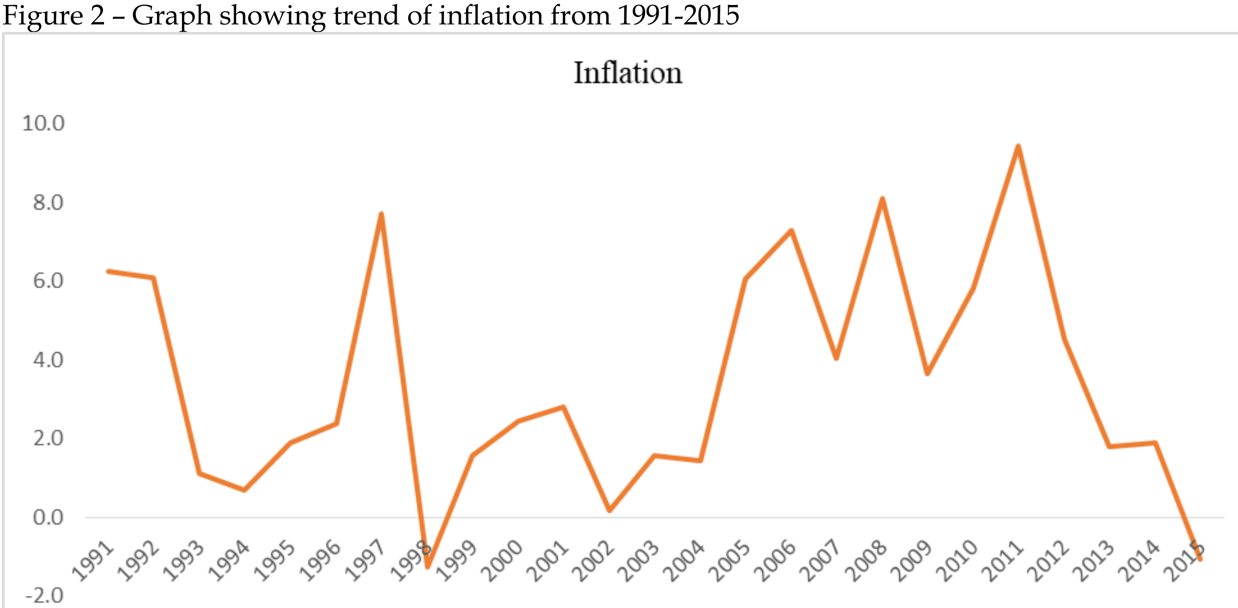


Figure 3 – Graph showing trend of unemployment from 1991-2015

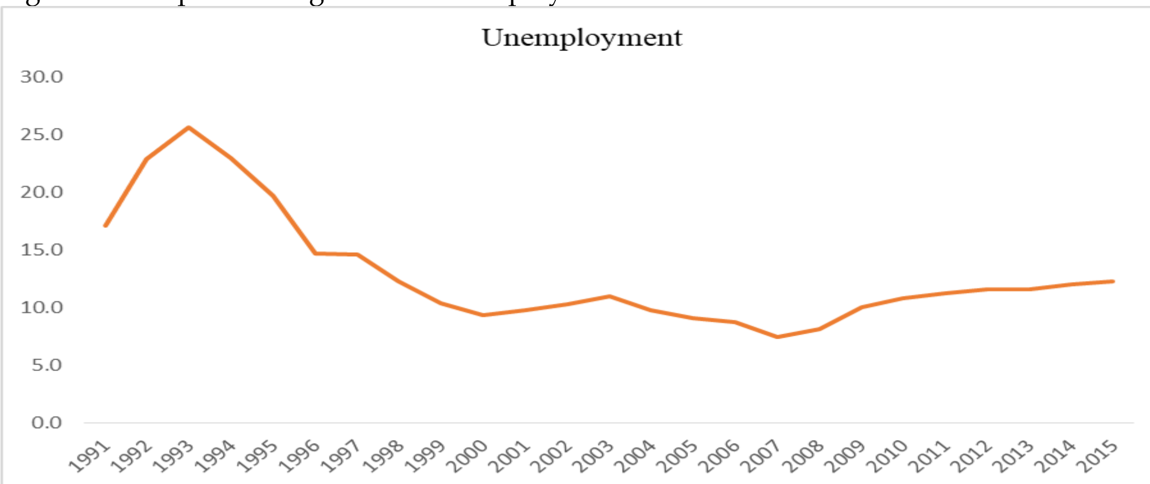


Figure 4 – Graph showing trend of weighted average lending rate from 1991-2015

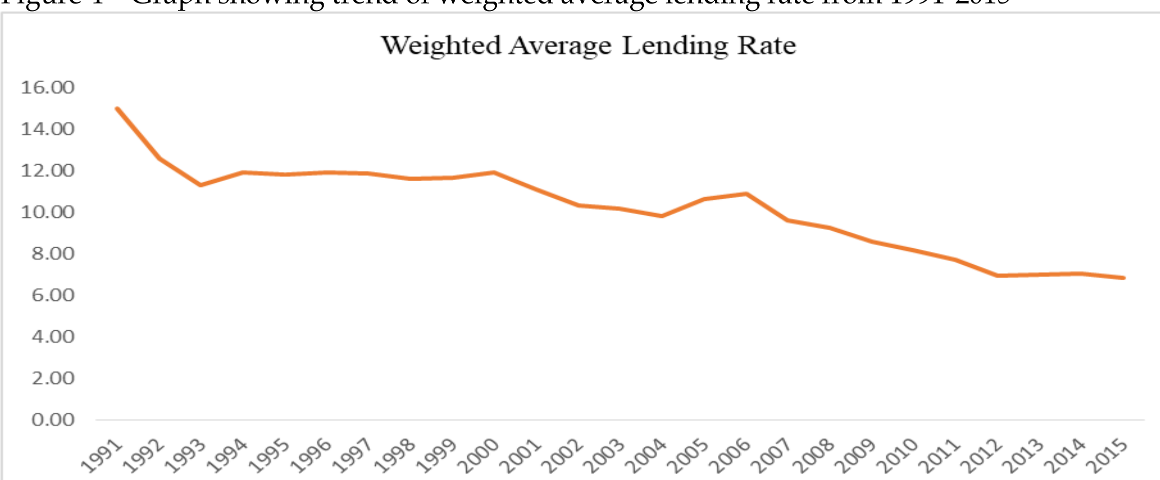


Figure 5 – Graph showing trend of return on equity from 1991-2012

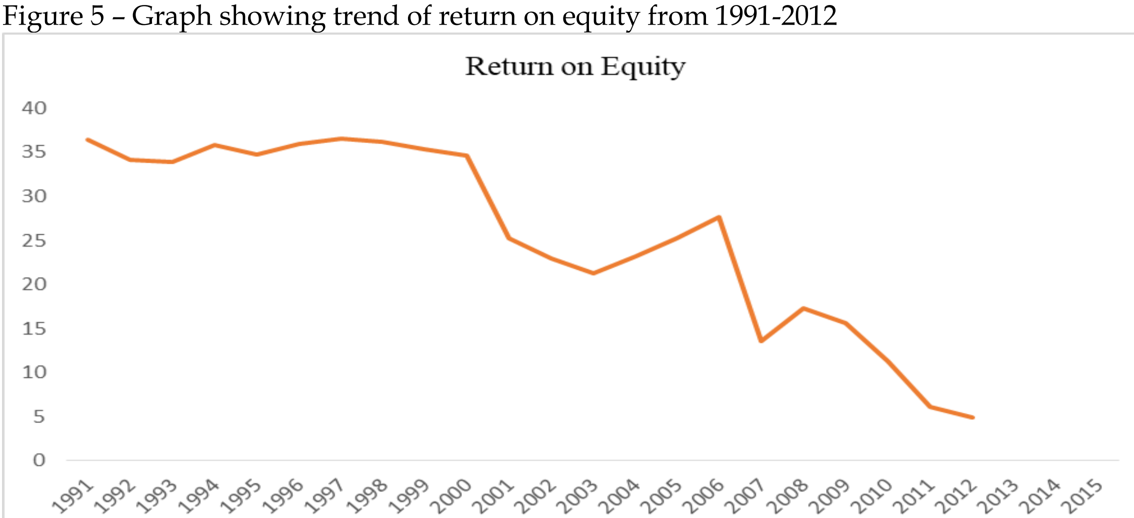


Figure 6 – Graph showing trend of return on assets from 1991-2015

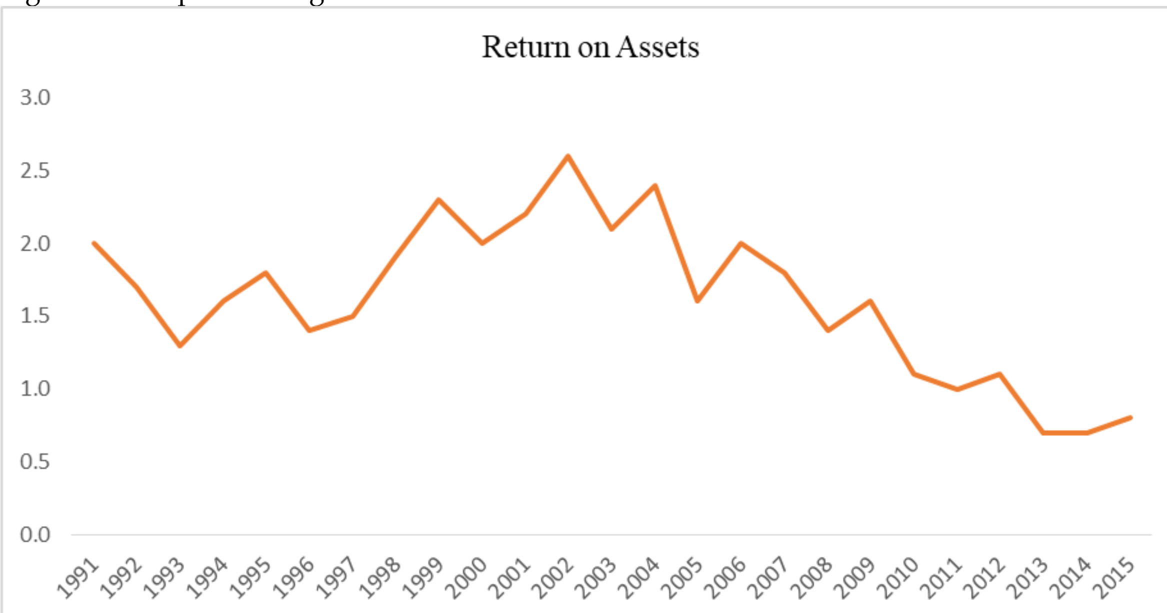


Figure 7 – Graph showing trend of capital adequacy ratio from 1995-2015

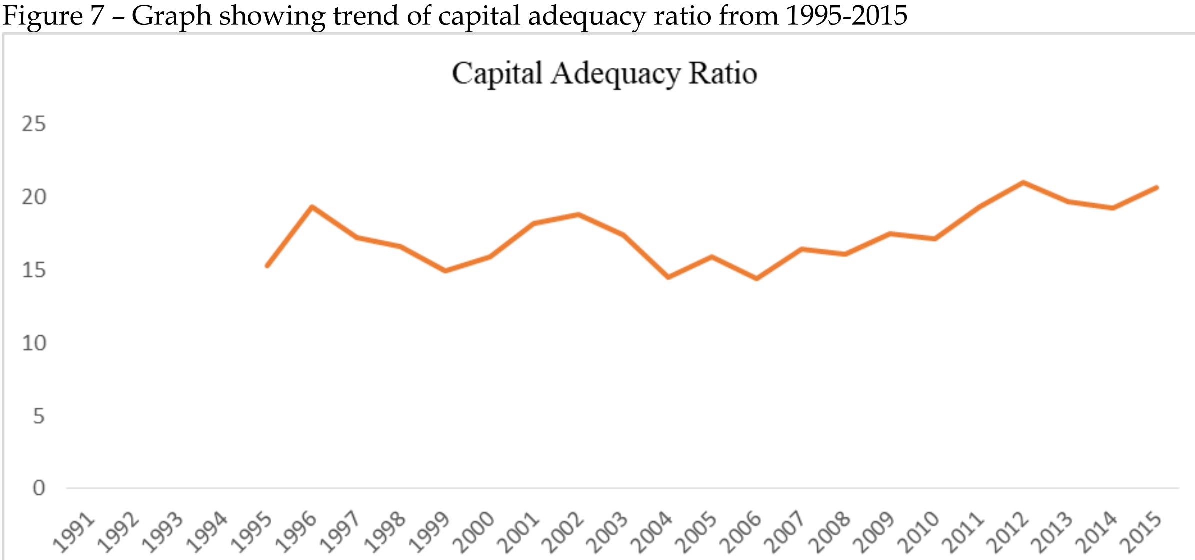
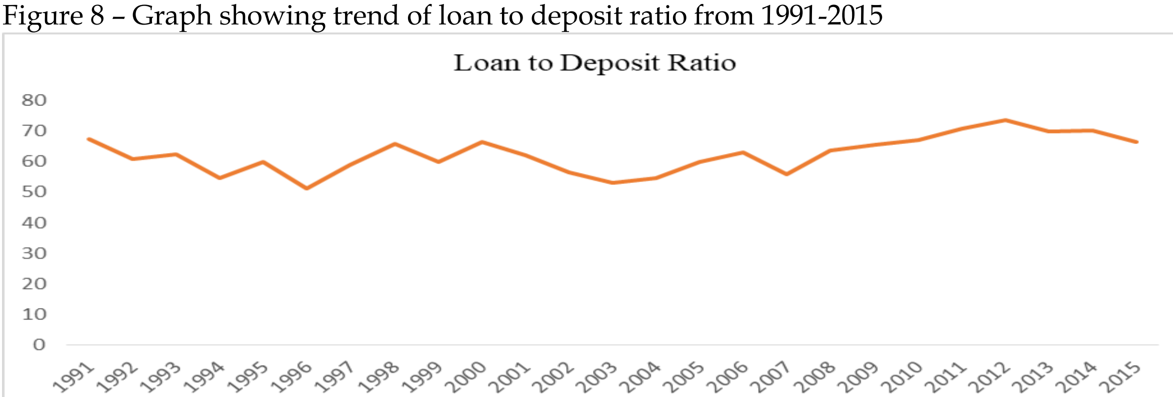


Figure 8 – Graph showing trend of loan to deposit ratio from 1991-2015



Determinants of auditor choice in emerging markets: evidence from Saudi Arabia

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Keywords
Audit market. Auditor choice, Emerging market, Audit committee.

Abstract

Purpose: *This study aims to analyze the choice of auditor in Saudi Arabian firms. The study investigates the main audit characteristics that influence firms'decision to go for either Big Four or a local audit firm.*

Design/methodology/approach*: the design and research method are empirical using a questionnaire survey to collect data on the determinants of the choice of auditors. The study adopted Oxera (2006) questionnaire. A representative sample of 124 firms out of a total of 183 listed firms in Saudi stock market have been selected. The questionnaire was distributed to members of audit committee to ensure reliable responses regarding the selection process.*

Data analysis*: data collected were analyzed using both descriptive and inferential statistics-Logistic Regression Analysis method.*

Findings*: only four variables were proved significant in the selection decision; namely; auditor fees, audit firm reputation with investors, geographical proximity and long-term relationship with current auditor.*

Research limitations/implications*: difficulty to generalize the findings of the study due to the uniqueness of the Saudi economic, political, educational and culture environment.*

Practical implications*: the increased competition in the audit market in Saudi Arabia called for the necessity to understand what influences the selection decision. Most researches were conducted in developed countries and little in emerging markets; so, this study will help auditor identify their competitive advantage in Saudi Arabian market.*

Originality/value: *this study contributes to better understanding of the firms' auditor choice and will stimulate further research in the same vein to investigate other factors on the side of the firm characteristics that affect the auditor selection decision. As well as more comparative analysis with other emerging markets in the Middle East.*

1. Introduction

The choice of a firm's auditor is considered one of the most important decisions taken by any firm. This is due to the vital benefits resulting from having the financial statements audited by a reputable auditor. First, it reduces information risk; as argued by the agency theory; firms with higher agency costs are motivated to choose a high-quality auditor to strengthen their corporate governance and thus lessen potential agency conflicts (Francis & Wilson, 1988; Mansi et al., 2004; knechel et al., 2008; Matonti et al., 2016) specially in complex organizations where management interests could differ from shareholder interests (Ekumankama & Uche, 2009). It has been documented by Farooq and Kacemi (2011) that stock price performance improved in the MENA region because of choosing one of the big-four auditors. Second, an audit might result in improving internal processes operational efficiency and effectiveness since the auditor must assess the client's internal control reliability, moreover, it helps firms better comply with legal and regulatory constraints (Wallace, 1981).

Olowooker (2016) mentioned that there is a market share gap between the Big Four and smaller firms in Nigeria, as 90 percent of listed companies are audited by the Big Four; while the 15 national firms audit the remaining 10 percent. In Saudi Arabia, as reported by the Saudi Ministry of

Commerce and Investment (2018) there is 176 auditing firm. A large number that shows a severe competition in Saudi audit market, that triggered the need to investigate the market share of the Big Four as compared to the Non- Big Four auditors in Saudi market and the factors behind the firm selection of its auditor to help auditors rely on their competitive advantages.

In addition, most of the research investigating this area has been conducted in developed countries as US and other developed economies such as UK (Beattie & Fernley, 1995), Australia (Craswell, 1988), Finland (Knechel, et al., 2008), and Italy (Matonti, et al., 2016), and Few research were conducted to investigate the factors affecting the firm selection of auditor in emerging markets; such as in Greece (Citron & Manalis, 2001), in Turkey (Aksu, et al., 2007), in MENA Region (Farooq & Tabine, 2015) and in Nigeria (Tommasetti, 2016). Beattie and Fernley (1995) suggest that auditor choice is motivated by three possible sources – audit environment, audit firm characteristics, and client characteristics. Revier and Schroé (2010) also concluded that three groups of variables can explain the auditor choice - the audit firm variables, the institutional variables and the firm variables. The objective of this study is to examine the determinants of external auditor choice in Saudi listed firms with a focus on only some audit firm characteristics. This paper is organized into six parts. Other than this Introduction, the second part is the Literature Review, followed by the Methodology, the fourth part is The Analysis and Results, part five is the Discussion and Conclusion, and finally the Research Limitations and Direction for further Research.

2. Literature Review

The agency problem and the need for quality audit

It has been recognised that firms acquire financial statement audit even when it is not mandatory because of its economic value (Sundem, et al., 1996). Watts and Zimmerman (1987) presented evidence that auditing has been developed to reduce agency costs and conflicts of interest among parties to the firm and not because of governmental requirement. According to DeAnglo (1981) firms must deal with a changing amount of agency costs, which vary over time and place and create an incentive for managers to find ways to lessen these changing agency costs by hiring a high-quality auditor to ensure the appropriateness and adequacy of his provided service. Other studies similarly supported this view about the ability of reputable auditor to signal outside investors that a firm is governed properly and has less agency problems (Datar et al., 1991; DeFond, 1992; Simney & Tanewski, 2000; Fan & Wong, 2005; Cheng & Leung, 2011; Farooq & Tabine, 2015). Nichols and Smith (1983) provided evidence that the stock market reacts more favourably when a company switches to a large auditor rather than to a small auditor. Broye and Weill (2008) suggested that the likelihood of having a Big Four auditor increases when the firm is listed. The study of Moizer (1997) investigating auditor reputation, revealed that company managers perceive a Big Four auditor as different from others as they are expected to provide higher quality services as compared to Non-Big Four auditors. Consistently, most researches define Big Four auditors as high-quality auditors (Simunic and Stein, 1987; Revier and Schroé, 2010; Olowookere & Inneh, 2016). Thus, in the literature, audit selection is based on a distinction between Big Four auditors and Non-Big Four auditors.

According to Farooq and Tabine (2015) the importance of reputable auditors increases many folds in emerging stock markets, where agency problems rise and information disclosure decreases. In the same vein, Leuz, et al. (2003) documented on the increased agency problem in emerging markets which necessitate the use of superior reputable auditors to give credibility to information disclosed by firms. Nevertheless, still the decision to have an auditor and the decision to switch auditors are considered complex decisions (Knechel, 2002).

Therefore, this study is conducted in Saudi Arabia, which is an emerging economy, and collected data from only listed firms; regarding the determinants of their choice of auditor; as listed firms face more agency problem due to the separation between the management and the external stockholders.

Factors affecting firms' selection decision

Niemi and Sundgren (2008) investigated the Finnnish auditor choice environment. Also, Knechel el, at. (2008) analysed the auditor choices for small and mid-sized Finnish firms. They proved that the need for a higher quality auditor is driven first by complexity, then, by the use of debt and the need of equity and debt financing. Revier and Schroé (2010) used data from 12 European countries including the Czech Republic, Estonia, Hungary, Latvia, Poland and Slovakia, to test the impact of the country a company is based in, next to the impact of internal firm characteristics and debt on the auditor choice. They proved the positive influence the internal complexity has on the auditor choice.

Wang (2013) argued that there could be a lot of factors that influence companies' auditor choice such as audit fees; auditor's reputation; industry specialization of an auditor, audit opinion, geography proximity, size of an audit firm, listed companies' own characteristics, political and legal factors. The paper provided evidence on Chinese listed companies' preference in choosing external auditors with a consideration to the Chinese special political influence on state-owned Chinese listed firms.

Choi et al. (2012) find that about 80 percent of firms choose the auditor located in the same area and more reputable. Another study provided evidence from U.S. companies that firms with independent audit committees are more likely to hire industrial specialists (Abbott and Parker, 2000). In the same vein, Craswell et al. (1995) proved that in addition to size and reputation of the auditor, a premium is given to industry specialization, indicating that industrial-related knowledge is also an important factor considered by client firm. Data from U.K. showed that changing auditor can be strongly encouraged by fees reduction, also audit fees proved to be an important factor in selecting a new auditor (Beattie and Feamly, 1995, 1998) Thornton and Moore (1993) also investigated how audit fees influence the audit choice. On the other hand, Gatumia (2012) concluded in his study conducted in Kenya that audit fees do not affect the choice of external auditor. Matonti et al. (2016) investigated auditor choice in Italian non-listed firms. The results showed that organizational complexity including firm size, investment in inventories, subsidiary status and complexity are main drivers of auditor choice. Evangelia (2013) used regression model to investigate internally-driven and external influencers of audit choice in 22 European countries. The level of internal complexity in a company had negative association with the selection of a Big Four auditor, while higher leverage increases the probability of engaging with a Big Four auditor.

Olowookere and Inneh (2016) investigated the determinants on the side of the auditor characteristics affecting manufacturing firms' choice in Nigeria. The study tested the effect of eight independent variables (technical accounting skill, sector-specific expertise, international coverage, management preference of specific auditor, long-term relationship with current auditor, reputation of audit firm with investors, reputation of audit firm with corporate broker, reputation of audit firm with other external advisers) on the choice of hiring a Big Four or a none-Big Four auditor. The results supported only international coverage and long-term relationship with current auditors. Based on the preceding researches the following hypotheses have been developed to be tested in this study:

H1: Firm choice of external auditor is affected by audit firm characteristics.

3. Methodology

The data for this study was collected based on both primary and secondary sources. The secondary data was collected from the firms' published financial statements, while the primary data was collected using a well-structured questionnaire. The questionnaire on the determinants of the choice of auditor used by Oxera (2006) has been adopted for the study. Listed firms in the Saudi Stock Exchange Market totalled 177 firm as published in Argaam website. A representative sample of 124 firm has been chosen from all industries as shown in Table (1). The questionnaire was distributed to a member in the audit committee to ensure reliable responses from a knowledgeable member involved in the auditor selection process.

Data were collected between October 2017 to February 2018. Both descriptive statistics and inferential statistics were used to analyse collected data. Logistic Regression method was used to analyse the data since the dependent variable is qualitative in nature (Gujarati & Porter, 2009).

Variables and Measurement

3.1.1 Dependant Variable

The dependent variable is the firm choice of the auditor which is classified into either Big Hour or Non-Big Four. A dummy variable will take the value of (1) when respondent is using Big Four and (0) if otherwise.

3.1.2 Independent Variables

The dependent variable; audit firm characteristics; is measured by eight variables as suggested by the literature which are listed below:

Audit firm fees (X_1)

Audit firm reputation with investors (X_2)

Audit firm reputation with corporate broker (X_3)

Audit firm reputation with external advisor (X_4)

Industrial specialization (X_5)

Geographic proximity (X_6)

Management preference for specific auditor (X_7)

Long-term relationship with current auditor (X_8)

Each variable is assigned (1) if the respondent opinion is it does affect his choice and (0) if otherwise.

4. Data analysis and results

Analysis was conducted with the help of SPSS 23. First frequency test has been conducted and the results showed that 46.8% of respondent choose one of the Big Four and 53.2% chose other local auditor. 52.4% perceived audit fees as important factor in the auditor choice, 50% considered audit firm reputation with investors as important factor; audit firm reputation with corporate broker collected 54%, 49.2 selected audit firm reputation with external advisor; industry specialization collected 48.4%, geographic proximity 48.4%; management preference for specific auditor 44.4%; and finally long-term relationship with current auditor 49.2%.

Industry	Count	survey sample	% Sample
Banks	12	8	6.45%
Diversified financials	4	2	1.61%
insurance	33	24	19.35%
telecommunication services	4	3	2.42%
utilities	2	1	0.81%
REITS	5	4	3.23%
Real estate management & development	10	7	5.65%
retailing	6	4	3.23%
food & staples	4	3	2.42%
food & beverages	12	8	6.45%
health care equipment & SVC	6	4	3.23%
pharma biotech & life	1	1	0.81%
energy	4	3	2.42%
materials	42	30	24.19%

capital goods	12	8	6.45%
commercials & professional SVC	2	1	0.81%
transportation	5	4	3.23%
consumer Durables & apparel	5	4	3.23%
consumer services	6	4	3.23%
media	2	1	0.81%
	177	124	100%

Table 1: Sample selection

Then by conducting the logistic regression test variables X_1; X_2; X_6; X_8 where accepted to have an effect on the firm choice of auditor selection as shown in table (2).

Auditor_choice		B Coef.	S.E.	Wald	df	Sig.		Exp(B)
Step 1[a]	X1	.836	.435	3.693	1	.050	Accept	2.307
	X2	.991	.445	4.947	1	.026	Accept	2.694
	X3	.406	.448	.820	1	.365	Refused	1.500
	X4	-.091	.439	.043	1	.836	Refused	.913
	X5	.131	.440	.088	1	.767	Refused	1.139
	X6	.870	.445	3.815	1	.050	Accept	2.386
	X7	.503	.443	1.290	1	.256	refused	1.653
	X8	1.156	.428	7.306	1	.007	Accept	3.176
	Constant	-2.240	.552	16.461	1	.000	Accept	.106

Table 2 : Logistic Regression Result Predicting External Auditor Choice in Saudi listed firms
Number of obs = 124 p-value less than 0.05
Cox & Snell R Square = .253 , Nagelkerke R Square= .338
LR chi2(8) = 36.185 sig. = 0.00 Log likelihood = 135.199 .

The results can be summarized in the table above as follows:
Y = (.836) * X1 + (.991) * X2 +(.406) * X3 +(-.091) * X4 +(.131) * X5 +(.870) * X6 + (.503) * X7 + (1.156) * X8 -2.24
Wald = (3.693) X1 , (4.947) X2 ,(0.82) X3 , (0.043) X4 ,(0.088)X5 ,(3.815) X6 , (1.29) X7 , (7.306) X8 , (16.461)constant

It is clear that the estimated logistic model is consistent with economic logic; the logic of the estimated parameters in terms of parameter reference, the increase in the independent variable by plus and decrease by minus of coefficient. The coefficient of determination (R square) indicates that considering all the variables, it explained just 25.3% of the determinant of external auditor choice in Saudi listed firms. So the second metric was chosen. This is as a result of four significance of other eight variables. This presents the result of logistic regression. It also confirms that the estimated model represents the data as a complete representation and supports the latent intrinsic value of a model according to the Hosmer-Lemeshow test, which is based on the Kai-square test and shows that the observed (original) frequencies and expected (estimated) frequencies of the dependent variable were exactly identical, The square is small and equal (0.000) and the value is (0.000) The chi-square value which shows that overall model fit is significant less 1% level. Equally, the correct classification of the sample was categorized into the two classification groups (0, 1) by 100%; the sample observations were categorized in full without any error rate. This affected the value, morale and accuracy of the Wald test for the significance of the parameters.

5. Discussion and conclusions

The market share of the Big Four proved to be less then the other national auditors in Saudi Arabia. A finding that contradicts with the literature regarding the high agency cost in listed firms in emerging markets which is supposed to increase the need of firms to hire reputable, high quality auditors, as suggested by Leuz, et al. (2003) and Farooq and Tabine (2015). The findings of the logistic regression analysis showed that only four out of the eight variables were significant namely; auditor fees, reputation with investors, audit firm geographical proximity, and long-term relationship with current auditor. This finding agrees with the results of Olowookere and Inneh (2016) in Nigeria, who found international coverage and long-term relationship significant, and with Thornton and Moore (1993) regarding the audit fees. But contradicts with Gatumia (2012), in kenya, regarding the audit fees having no effect on the firm choice.

It can be concluded that the study of the firm choice of the auditor still needs more investigation to find an acceptable justification to a firm choice to one Big Four or a domestic audit firm.

6. Research limitations and direction for further research

One limitation of the paper is that results cannot be generalized to other emerging economies given the uniqueness of the Saudi economic, political, educational, religious and cultural environment.

Further investigation of the effect of firms' characteristics and degree of complexity of operation on the choice of a Big Four auditor is required since analysing the side of the auditor characteristics solely is not enough to explain the firms' selection process. Moreover, comparative studies are to be conducted in the middle east to reach points of similarities between such emerging markets as well as documenting any differences to better understand the factors behind the firms' choice and to investigate the importance of quality audit in the middle east to encourage foreign investment in the middle east by increasing trust and lowering agency costs.

References

Abbott, L.J. & Parker, S. (2000). Audit Selection and Audit Committee Characteristics. *AUDITING: A Journal of Practice & Theory,*19(2), 47-66.

Argaam, (2018). Listed firms Financial Report. [on line] Available at:
https//www.argaam.com/ar/company/financial-pdf [Accessed 20 Sep. 2017-15 Jan. 2018]

Aksu, M., Onder, T. & Saatcioglu, K. (2007). Auditor Selection, Client Firm Characteristics, and Corporate Governance: Evidence from Emerging Market.
http://www.research.sabanciuniv.edu/819/. Retrieved: September 20, 2017.

Beattie, V. & Fearnley, S. (1995). The Importance of Audit Firm Characteristics and the Drivers of Auditor Change in UK Listed Companies. *Accounting and Business Research*, 25(100), 227-239.

Beattie, V. & Fearnley, S. (1998). Audit Market Competition: Auditor Changes and the Impact of Tendering. *British Accounting Review,* 30(3), 261-289.

Broye, G. & Weill, L. (2008). Does leverage Influence Auditor Choice? A Cross-country Analysis. *Applied Financial Economics*, 18(9), 715-730.

Cheng, T. W. & Leung, T. Y. (2011). Management Demography and Auditor Choice: The Case of China. *International Review of Accounting, Banking and Finance*, 3(2), 104-121.

Choi, J.H., Kim, J.B., Qiu, A.A. & Zang, Y.S. (2012). Geographic Proximity Between Auditor and Client: How Does It Impact Audit Quality? *AUDITING: A Journal of Practice & Theory,* 31(2). 43-72.

Citron D.B. & Manalis G. (2001). The International Firms as New Entrants to the Statutory Audit Market: An Empirical Analysis of Auditor Selection in Greece, 1993 to 1997. *The European Accounting Review,* 10(3), 439-459.

Craswell, A.T., Francis, J.R. & Taylor, S. L. (1995). Auditor Brand Name Reputations and Industry Specializations. *Journal of Accounting and Economics,* 20(3), 297-322.

Datar, S.M., Feltham, G.A. & Hughes, J.S. (1991). The Role of Audits and Audit Quality in Valuing New Issues. *Journal of Accounting and Economics*, 14, 3-49.

DeAngelo, (1981). Auditor Size and Audit Quality. *Journal of Accounting and Economics*, 3, 183-199.

DeFond, M.L. (1992). The Associations between Changes in Client Firm Agency Cost and Auditor Switching. *AUDITING: A Journal of Practice and Theory,* 11(1), 16-31.

Ekumankama, O. & Uche, C. (2009). Audit Committee in Nigeria. *Corporate Ownership & Control*. 6 (3), Spring, 117 – 125.

Evangelia, S. (2013). Determinants of Auditor Choice in the European Market. Master Thesis. School of Economics and Business Administration. International Hellenic University.

Fan, J.P.H. & Wong, T.J. (2005). Do External Auditors Perform a Corporate Governance Role in Emerging Markets? Evidence from East Asia. *Journal of Accounting Research,* 43(1), 35-72.

Farooq, O. & Kacemi, Y. (2011). Ownership Concentration, Choice of Auditors, and Firm Performance: Evidence from the MENA Region. *Review of Middle East Economics and Finance,* 7(2), 1-17.

Farooq, O. & Tabine, S. (2015). Agency Problems and the Choice of Auditors: Evidence from the MENA Region. *Review of Middle East Economics and Finance,* 11(1), 79-97.

Francis, J.R. & Wilson, E.R. (1988). Auditor Changes: A Joint Test of Theories, Relating to Agency Costs and Auditor Differentiation. *The Accounting Review,* 63(4), 663-682.

Gatumia, G. N. (2012). Determinants of Choice of External Auditors: The case of Commercial Banks in Kenya. Retrieved from
http://erepository.uonbi.ac.ue:8080/xmlui/handle/123456789/9209.

Gujarati, D.N. & Porer, D.C. (2009). Basic Econometircs. *McGraw-Hill International Edition, fifth edition*, 543-546.

Knechel, W. R., (2002). The Role of Independent Accountant in Effective Risk Management. *Tijdschrift voor Economic en Management*, (February), 65-86.

Knechel, W. R., Niemi, L. & Sundgren, S. (2008). Determinants of Auditor Choice: Evidence from a Small Client Market. *International Journal of Auditing*, 12(1), 65-88.

Leuz, C., Nanda, D. & Wysocki, P. D. (2003). Earnings Management and Investor Protection: An International Comparison. *Journal of Financial Economics,* 69(3), 505-527.

Matonti, G., Tucker, J. & Tommasetti, A. (2016). Auditor Choice in Italian Non-Listed Firms. *Managerial Auditing Journal,* 31(4/5), 458-489.

Moizer, P. (1997). Auditor Reputation: The International Empirical Evidence. *International Journal of Auditing*, 1(1), 61-74.

Nichols, D. & Smith, D. (1983). Auditor Credibility and Auditor Changes. *Journal of Accounting Research*, (Autumn), 534-544.

Olowookere, J.K. & Inneh, G.E. (2016). Determinants of External Auditors Choice in Nigerian Quoted Manufacturing Companies. *Kuwait Chapter of Arabian Journal of Business and Management Review,* 5(9), 10-22.

Niemi, L. & Sundgren, S. (2008). Auditing, Trust and Governance – Regulation in Europe (eds. Quick, R., Turley, S. & Willekens, M.), London. Routledge.

Oxera. (2006). Competition and Choice in the U.K. Audit Market: Prepared for the Department of Trade and Industry and Financial Reporting Council. Oxera Consulting (Oxford, England).

Simunic, D. A. & Stein, M.T. (1987). Product Differentiation in Auditing: Auditor Choice in the Market for Unseasoned New Issues. *Vancouver, BC: The Canadian Certified General Accountants' Research Foundation.*

Sundem, G.L., Dukes, R. E. & Elliott, J.A. (1996). The Value of Information and Audits, New York. Coopers & Lybrand.

Revier, E. & Schroé, R. (2010). Determinants of Auditor Choice. Master Thesis. Faculteit Economie en Bedrijfskunde. Univeriteit Gent.

Thornton, D. B. & Moore, G. (1993). Auditor Choice and Audit Fee Determinants. *Journal of Business Finance & Accounting*, 20(3), 306-349.

Wallace, W. (1981). The Economic Role of the Audit in Free and Regulated Markets. http://raw.rutgers.edu/raw/wallace/homepage.html.

Wang, Y. (2013). Evidence on The Choice of External Audit Firms by Chinese Companies. Master Thesis. School of Economics and Management. Tilburg University.

Watts, R. L. & Zimmerman, J. L. (1978). Toward a Positive Theory of the Determination of Accounting Standards. *The Accounting Review*, (January), 112-134.

Determination the price of a share listed on the stock exchange

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Keys word
Technical analysis, fundamental analysis, trading, return.

Abstract

Do investment in stock exchange or currencies for the short term as to protect and make grow the capital is based on the anticipation of the prices which are generally established using technical analysis and/or the graphic study of the prices and the indicators of calculation (particularly in the speculative investment on the short term). Nevertheless, the investment in a long term strategy leads to take decisions of purchase and sale of the financial shares while considering the objective or subjective data of macroeconomic and financial order (fundamental analysis).

In consequence, the management of a portfolio of shares listed on the stock exchange and follow its performance with tools (software) to help decision-making which integrate several methods allowed with the choice to the investor (trader or portfolio manager) according to his strategy, his experience, his psychological profile (risk tolerance) and the targeted market(s).

The principal question for trading (daily, weekly or monthly) with shares is how to know market trends from volatility (fast evolution of the prices) and the reversal of trends to seize the available opportunities.

So, when the trading in stock exchange is dominated by the technical analysis, this paper proposes a simple method which allows understanding the gaps and reversals situation of the prices.

Introduction

Most of the participants experienced with trading the shares listed at stock exchange have learnt with practice that a clear and synthetic vision of the price should allow making positive returns durably by taking into account that the number of good decisions remains consequent with regard to the whole trade. Consequently the estimation of the price at moment t + 1 constitutes the essential element in the decision-making in trading at the stock market. As a reminder, the stock market price represents the last price on which a buyer and a seller agreed to complete a transaction. The price of the share varies according to the kinds of the order given for the purchase or the sale which must be placed into two categories: the first one concerns the sale or purchase at any price and, the second concerns sales and purchases according to thresholds or fixed intervals. These orders given onto the stock-exchange platforms were ordered according to the technical information available in generally on the market and in particular about the company. This information gives an idea of the trend established with regard to a series of daily fluctuations (prices) translated into four daily data (open, low, high and close price). These fluctuations (prices) are accompanied by information relative to the volume of exchange of shares which allows to give a perspective of the value of the exchanged volume (that is the ratio between the number of shares in circulation and the number of share traded, otherwise, the exchanged capital.

In a general way and, in case the exchanged capital is above 1 % in the opening of the market, it is reasonable to consider that the daily price of the share would be volatile. It's grounds for noting that the volatility represents the variance of the share with regard to its average price.

This volatility is established by the formula of the variance $V(X) = \frac{\sum_{t=1}^{n}(X_t - \bar{X})^2}{N}$ with:

Xt: Price of the share X at time t;

Xt : Average price of the X share;
N: Number of periods.

Variance measures the dispersion of a series relative to its mean. In other terms, it is the average of gap from the squared average and is between 0 and 1.

Nevertheless, for professional traders, the volatility of a share price over a period (t) represents its amplitude represented by the following formula:

$$\text{Volatility (t)} = \frac{(\text{the highest price} - \text{the lowest price})}{(\text{average price})}.$$

With (t) expressed in months or days or hours or in intervals of : 15 minutes or 5 minutes or 1 minute.

For others, the volatility of the share is expressed in percentage and, it is estimated by the standard deviation, with a determined period and takes the naming of risk. The volatility or risk was estimated according to the following formula of standard deviation: $\partial(x) = \sqrt{V(x)}$.

In consequence, the understanding of the volatility varies from an investor to the other and one can classify them by levels going from 1 to 5 respectively to the rates lower than 20 %, from 20 to 40 %, from 40 to 60 %, from 60 to 80 % and of 80 to 100% (Botraider, bourse big data, 2007).

Of what precedes, the position of every investor in a stock exchange adheres to one of the two forms following;

The preference of volatility and we find on one hand, the speculators who intervene on very short-term horizons, going from a few minutes (to scalp) in a few days (for those who practice the swing trading). On the other hand, the investors who intervene in a market on the basis of a thorough financial analysis of the share on giving a potential of earnings on the short, average and long term. The aversion in the volatility and we find on one hand, the beginners in stock exchange who avoid the shares which presenting too much stress and, on the other hand, the institutional investors which stay away from the volatile shares because they adopted a strategy which limits the yields to a risk in the low threshold (the level or the very low rate of the volatility).

So, whatever is the investor and his attitude with regard to the volatility, the methods used in any decision to buy or to sell shares in a stock market obey following both tools: the technical analysis which concentrates more on the past movements of the price of the share rather than on the fundamental determiners of its future profitability (yield with regard to the price). The technical analysis admits that the data crossed on the prices and the volumes of transactions give a signal to the movements of the future prices. The other tool being fundamental analysis (stock picking) which handles the influence of the economic environment in general as well as the specific characteristics of the sector in which the company operates and on its current value based on its financial statements. Otherwise, the fundamental analysis is based on the use of financial and accounting data, and economic forecasts to determine the price of the share. The principal preoccupation of the fundamental analysis consists in determining the intrinsic value of an investment by trying to estimate the future profitability of the company.

In fact, (Fama 1970, p. 383) has given three forms of market efficiency (low, semi-strong and strong), which may not develop in a stock exchange when the technical analysis takes over on the fundamental analysis. Because the technical analysis leans on graphical representations and a series of indicators to identify the tendency of the price and the reversals while for the fundamental analysis, it's a question of identifying the shares that have a price which is lower than its fundamental value (underestimated) to resell them at a higher price or simply identify the shares which assure the profits.

And in case the market is dominated by the technical analysis, the decision to purchase or sell the shares concentrates on the basis of the history of the prices of the shares and not on a set of information. And it's the case for the foreign exchange currency market of the short-term, in which fundamental analysis dominates (Neely & Weiler, 2011, p. 79). These lead professionals in this market to avoid trading during the timings of information announcements.

In consequent, the market where the technical analysis establishes as the rule, the investors of this market would prefer shares with high volatility because they offer many opportunities. In this context, the decision to invest is taken on the basis of a good graphic reading of the prices according to a representation (candlesticks, Bar-Charts, curve, etc.) and, according to the used units of time (1 minute, 5 minutes, 15 minutes, one half an hour, 1 hour, 4 hours and 1 day, 1 week or 1 month) and the horizon of investment. With this good reading of graphic is added the identification of the tendency of the value which is built on the one or following both techniques:

The chartist analysis or the Chartism, that is the study of the graphs of the prices of the share to which join visualized figures or visualized the constructed figures that they are tendencies (trends, channels…. etc.), or consolidation (triangles, bevels….), of reversal (double top, bottom, ….etc) or read the Japanese candlesticks such as the doji, the hammer and the hung, the inverted hammer and the falling star, the star of morning or evening, haramis, …). These figures allow to identify levels of the prices (levels of support and resistance, tracings of Fibonacci, gaps, … etc.) for anticipate the prices;

The use of the mathematical indicators (technical) such as the moving averages (simple, balanced, exponential) in 9, 20, 50, 200 days, and the indicators of power unbounded (momentum, macd…), and the indicators of power bounded (RSI, stochastic, ….). These indicators in the number which exceeds one hundred, they can be classified in three categories according to their degrees of importance:

- The dynamics of the prices: the relative strength, the momentum, … ;
- The divergence: the analysis of the volumes, on Balance Volume (OBV), ………. ;
- The analysis of the trend: the levels of support and resistance, the moving averages, the DMI, etc.

The preponderance of the graphical analysis in relation to the technical indicators or the technical indicators compared to the graphical analysis in the decision of each trade differs from one stock market to another and depends on the culture of the market. As an indication, the graphic analysis of Ichimoku Kinko Hyo is the technique commonly used in Japan and in Asian markets.

We retain that the technical analysis represents the study of the evolution of the market, mainly on the basis of graphs, with the aim of planning the future tendencies (MURPHY 1986, p. 32-120). Nevertheless, for the practitioners, the technical analysis is based on the principle formulated by Charles Dow who identifies three major tendencies for the price of the share which are the result of the information and the knowledge concerning the share available to the market.

First, market movements may be decomposed into primary, secondary and tertiary trends, the most important of which are Bull and Bear markets, both of which are characterized by fundamental economic activity as well as market price changes. Bull markets have three stages: "first...[is]...revival of confidence in the future of business...second is the response of stock prices to the known improvement in corporate earnings, and the third is the period when speculation is rampant and inflation apparent." For primary bear markets, "the first represents the abandonment of the hopes on which the stocks were purchased at inflated prices; the second reflects selling due to decreased business and earnings, and the third is caused by distress selling of sound securities, regardless of their value (Brown, Goetzmann & Kumar 1998, p. 5).

The tools of the current technical analysis

The technical analysis uses functions to exclude the echo (resonance) of the prices which show themselves in the form of small oscillations on the curve. So these values are extirpated out of the curve to reflect a more appropriate market trend (Sennhauser 2008, p. 9).

The Moving Averages

The moving average is the filter most used by the analysts for its simplicity. There are several sorts of moving averages and the simple moving average, the balanced moving average and the exponential moving average are the most used. The Arithmetical Moving Average (MMA) of the prices is calculated on the basis of an average of number of days (n). The moving balanced Average (MBP) affects a weighting more important for the most recent periods. The calculation principle of MBP consists in making the division between the sum of the multiplications of the price by a coefficient of every observation according through order chronological affected by weight and the sum of these coefficients. This calculation is represented by the following formula:

$$\mathbf{MMP} = \frac{nP_t + (n-1)P_{t-1} + \cdots\ldots + 2P_{t-1} + P_{t-1}}{n + (n+1) + \cdots_{\cdot\cdot} + 2 + 1}$$ or

N: represent the number of days;
P: represent the price of the share and t: represent the day of the quote.

And as regards the exponential moving average (EMA) it's calculated by adding a price fraction of day (price of close) with the value of the moving average of the day before (EMA_{t-1}) that's calculate :

$$\mathbf{EMA} = EMA_{t-1} + \frac{2}{\text{Period}+1} * (P_t - EMA_{t-1})$$, Wither:

$\mathbf{EMA_{t-1}}$ It's the value (price) of the moving average of the day before, $\mathbf{P_t}$ = the closing price of the day and $\frac{2}{\textbf{Period}+1}$ is the exponential percentage is, which depends on the period of calculation the moving average.

The technique of use of these averages consists in visualizing the crossing between some kinds of moving average (in number of different days) which help to predict on probable change of price. Sometimes, the used crossing is between the price trend and one of these averages.

There are other moving averages such as, among others: Average True Range (ATR), End Point Moving Average, Moving Average Convergence Divergence (MACD), Triple Exponential Moving Average (TRIX) and Variable Index Dynamic Average (VIDYA).

Chartist figures (chart pattern)

A pattern is a discernible regularly in the world or in a manmade design. As such, the elements of a pattern repeat in a predictable manner. A geometric pattern is a kind of pattern formed of geometric shapes and typically repeated (Internet Pattern 2018). So a chart pattern is a pattern that is formed within a chart. In stock and commodity markets trading, chart pattern studies play a large role during technical analysis. When data is plotted there is usually a pattern which naturally occurs and repeats over a period of time. Chart patterns are used as either reversal or continuation signals.

So the examples of classical chart patterns as popularized (Edwards & Magee, 2007) and used widely by traders and investors include : head and shoulders, trend lines, cup and handle, double top and double bottom, triple top and triple bottom, broadening top, price channels, wedge pattern, triangle, flag and pennant patterns and elite patterns. There are other graphical configurations that give indications of price movement such as Elliot's wave.

The Oscillators

Oscillators or power indicators defined by (Béchu & Bertrand, 1998) as a derivate of the prices wherein data on the prices are used in formula (more or less complex) allowing obtaining a new series of data which oscillates around a precise level. The purpose of an oscillator is to determine what trend the share is in and to identify the most probable new trend and more specifically, it tries to detect the end of the trend.

For (Dublanc 1991), the technical indicators, by different manipulations of the data of the prices, will try to filter at best the useful information. This information has two natures: on one hand, the trend or the directional component which is filtered through the monitoring indicators of trend and on the second hand a cyclic component. The oscillators will try to retain only this cyclic component. These oscillators indicate the periods when the prices rose too far or fell too low when compared with a situation of equilibrium in their current cycle.
For indication, we can quote some indicators like: Momentum, Relative Strength Index, Stochastic oscillator, Williams %R, Know Sure Thing (KST), Bollinger Bands, ..etc.

Synthetic indicators

A synthetic indicator makes it easier to understand the movement of the trend. It's characterized by a sensitivity to price variation. They are of two categories, one measures volumes such as: volume, accumulation & distribution index, money flow index, On-balance volume, volume price trend, force index and negative volume index and the second measures the volatility such as: Donchian channel, Standard deviation, performance, …etc.

The indicial indicators

The indicial indicators give an indication about stock market movement. The goal of this indicator is to give the cumulative sum of the daily difference between the number of issues advancing and the number of issues declining in a particular stock market index (Edwards & Magee, 2007). We can mention as an indication: Advance decline line, Commodity Channel Index, Coppock curve, Keltner channel, Ulcer Index.

Other indicators: They represent the indicators that do not appear in the above ranking.

The kinematic method for the estimation

Every forecast realized on a share is accompanied by a reliability, to help the investor in its choices of purchase and sale of shares. But a bullish or bearish forecast doesn't constitute necessarily a signal of purchase or sale. So, because the potential of evolution of the share is limited or the reliability of the methods or tools used for this forecast are weak giving a low confidence.

So, we suggest studying the forecast of the trend of the prices through the kinematics and which consists in explaining the changes of the prices in their reports in time in the same way of the study of a movement in a given space and, in with don't worry about causes of the movement. And we consider that the variation of prices constitutes a rectilinear movement uniformly varied.

The position of a price

The trajectory establishes the successive positions of the price (moving) with regard at a chosen landmark. The movement is said rectilinear, if the trajectory is straight and, it is curvilinear in the other cases.

The landmark is reduced to an axis (Ox) of the plane of the curvilinear trajectory and at each instant (t) corresponds a position of the price (moving). It's characterized (t) as the date or unit of time that measures the time interval between prices and whose initial date is arbitrarily zero. So the price movement is a function of time.

Whether: P= f(t) [P: price, t : time with P=0 à t=0].

The graph of this function constitutes the diagram of the movement in time.

$$\vec{P}(t) = a_0 * \vec{u}_i = \text{constant} = a_0$$

The speed of the price

If the price is at the position M(p) at time t and at the position $M'(p+\Delta p)$ at the time (t + Δt), increasing the vector of the position $\Delta(\overrightarrow{OM})$ for component $(\Delta p.\vec{i})$. The average increase from t to (t + Δt) is $\frac{\Delta(\overrightarrow{OM})}{\Delta t} = \frac{\Delta P}{\Delta t}.\vec{i}$ is the speed vector of movement between t and (t + Δt).

Thus $\mathbf{S}(t) = \sqrt{\left(\frac{dP}{dt}\right)^2}$, or again $\mathbf{S}(t) = \frac{dP}{dt}$ knowing that S(t)= a where (a) is a constant.

We can write otherwise the equation of speed: $\boldsymbol{S}(t) = \int a_0.dt = a_0 t + v_0$
($\mathbf{v_0}$ is a constant of integration).

The unit of speed describes units of the prices and the units of time. The unit of speed is calculated according to the local currency and/or may be expressed in penny / minute or in Dollars / day.

Thus, the hourly equation of the price P=f(t) is achieved by integrating speed S(t), that is obtained by the differential equation of price movement $\vec{P}(t) = a_0$

$$P(t) = \int S(t).dt = \int (a_0 t + S_0)dt = \frac{1}{2}a_0 t^2 + S_0 t + p_0$$

S : The constant of the integral.
$\mathbf{S_0}$ and $\mathbf{p_0}$ are determined by the initial conditions at t=0.

By referring in the expressions of speed and price to ($\mathbf{S_0}$=0) et ($p_{\text{à}}$=0) when t=0, we obtain:

$$P(t) = \frac{1}{2}a_0 t^2$$

The acceleration of the price
From any position taken as origin, if we trace for any value of t a speed vector $\vec{S}_t$ which constitutes the hodograph of the price movement P, at times t and (t+Δt), correspond to positions P et P' and that correspond to the vectors $\overrightarrow{OM}$ et $\overrightarrow{OM'}$ which represent the speeds S et $\mathbf{S'}$.
Where $\boldsymbol{\gamma}$ is the speed vector with respect to the position M et M'. We saw that: $S(t) = \frac{dP}{dt}$.
In the same way $\frac{dS}{dt} = \frac{d^2P}{d^2t}$ and which represents the second derivative with respect to time for the considered date t.
The unit of acceleration that describes the speed and the time unit squared is a function of the local currency and / or can be expressed in pence / minute² or $ /day².
So the price is expressed by the following formula: $\mathbf{P} = \frac{1}{2}\boldsymbol{\gamma}\mathbf{t}^2 + \mathbf{v_0 t} + \boldsymbol{p_0}$
With $S = \gamma t + s_0$ and $P = \frac{1}{2}\gamma t^2 + s_0 t + p_0$ and by replacing t between these two equations, we obtain a relationship between the values of the price and the speed independently of the time:

$$S(t) = \int a_0.dt = a_0 t + S_0 = \gamma t + S_0 = \Rightarrow \frac{(S - s_0)}{\gamma} = t$$

And $P = \frac{1}{2}\gamma t^2 + s_0 t + p_0 \quad \Rightarrow P - p_0 = \frac{1}{2}\gamma t^2 + s_0 t = \frac{1}{2}\frac{(S-s_0)^2}{\gamma} + \frac{s_0}{\gamma}(S - s_0)$

$$2a_0(P - p_0) = (S - s_0)^2 + 2s_0(S - s_0) \quad \Rightarrow \quad 2\gamma(P - p_0) = S^2 - s_0^2$$

$$\mathbf{S^2 - s_0^2 = 2\,\boldsymbol{\gamma}}P$$

At: $\mathbf{t_0} = 0 :\ s_0 = 0$ and $p_0 = 0$
The previous equations (Cessac & Tréherne 1972, p. 18) become:

$\mathbf{P} = \frac{1}{2}\boldsymbol{\gamma}\mathbf{t}^2$ and $\mathbf{S} = \boldsymbol{\gamma}\ \mathbf{t}$ and $\boldsymbol{S}^2 = 2\ \boldsymbol{\gamma}\ \mathbf{P}$

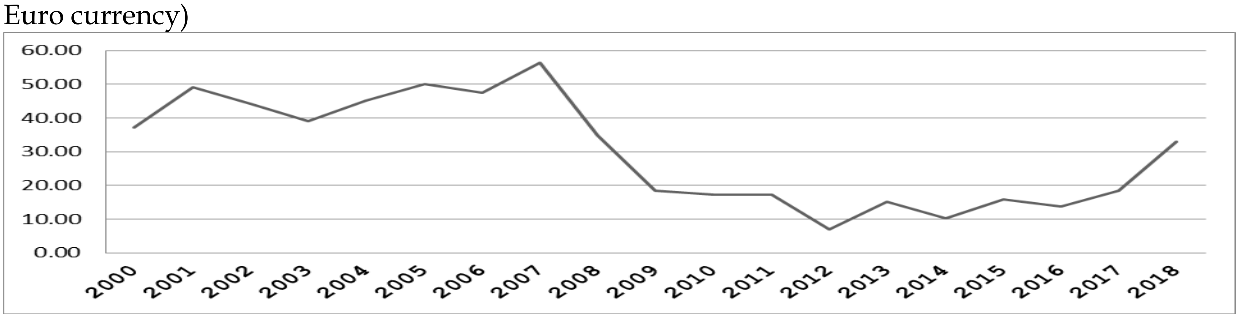
We note that the constant vector $\vec{P}(t) = a_0$ isn't enough to say that the movement is straight uniformly varied. If the speed vector S_0 at t=0 isn't following the direction of the vector acceleration, the movement will be flat, in the plane containing S_0 and a_0.

It is thus necessary to add a condition: that the movement is rectilinear or to specify that at the moment t any vector acceleration and vector speed are collinear. The movement is uniformly accelerated if the speed is an increasing function of t. The movement is slowed down if the speed is a decreasing function.

Practical aspect

A choice on a financial title (share) on a branch of industry is established on the French company Peugeot, a car manufacturer. This choice is a random choice and having for origin two reasons which are on one hand, this is a mature branch of car industry and on the other hand, the data of the prices of the share on a unit of time (day) are available from January 3rd, 2000 until January, 2018. The automobile industrial sector knew a major crisis from the end of 2007 till 2009 (problem of economic environment) and, the share price of Peugeot company was at the lowest at the end of 2013 because, it announced a net loss equal to 5 billion Euros for the 2012 fiscal year.

Figure 1: The price of share for Peugeot Company from April, 1999 to February, 2018 (by year in Euro currency)



Source: Author

We will try from the equations what were mentioned above with the data collected from Stock Exchange of Paris (France) for any month because the time is equal one day.

Table 1: Share price for Peugeot Company during the month of January 2000
(at 1:00 AM close price- in Euro currency)

Date	Open	High	Low	Close	Volume		Date	Open	High	Low	Close	Volume
03	38,00	38,03	36,83	36,83	90292		-	-	-	-	-	-
04	37,48	37,48	35,52	36,13	236501		18	39,92	40,25	39,12	39,18	114292
05	35,10	35,83	34,67	35,33	238473		19	39,17	39,38	38,37	38,77	136958
06	35,33	36,45	35,17	36,33	177045		20	38,67	38,78	38,00	38,35	147226
07	36,83	37,17	35,70	36,67	179313		21	38,08	39,17	37,95	38,65	92687
10	37,33	39,00	36,83	38,22	236810		24	38,50	38,83	38,17	38,70	148134
11	38,22	38,67	37,87	38,00	223426		25	38,80	39,17	38,17	38,50	142159
12	37,75	38,87	37,75	38,50	168751		26	38,58	39,17	38,10	38,42	155261
13	38,42	40,00	38,20	39,25	173637		27	37,92	39,10	37,02	38,37	598100
14	39,35	40,75	39,35	40,33	167027		28	38,05	38,67	36,17	36,67	346444
17	40,75	40,83	39,23	39,92	98989		31	36,12	36,77	35,88	35,98	229575

Source: Bourse direct 2004, brokerage company. Available from: www.boursedirect.fr/fr/. [05 February 2018]

Calculation methods for table 2 components are :

The speed is calculated according to the following formula $S(t) = \frac{dx}{dt}$

$S_4 = \frac{36{,}13-36{,}83}{4-3} = -0{,}70$, $S_5 = \frac{35{,}33-36{,}13}{5-4} = -0{,}80$ …etc.

The acceleration designated by the formula $\gamma(t) = \frac{d^2P}{d^2t}$. So the calculation about the acceleration is as follows :

$\gamma_5 = \frac{-0{,}80-(-0{,}70)}{5-4} = -0{,}10$, $\gamma_6 = \frac{1-(-0{,}80)}{6-5} = 1{,}80$, …….etc.

The price was estimated by the following formula: $\mathbf{P} = \frac{1}{2}\boldsymbol{\gamma}\mathbf{t}^2 + \mathbf{S_0 t} + \boldsymbol{p_0}$ with t=1 day $\mathbf{S_0} = 0$ et $\boldsymbol{p_0} = 36{,}83$ €

So, $\mathbf{P_5} = \frac{1}{2}\boldsymbol{\gamma}\mathbf{t}^2 + \boldsymbol{p_0} = \frac{1}{2}.1{,}80.(1)^2 + 36{,}83 = 36{,}78$ €. ……etc.

Estimated price difference (discrepancy) = Estimated price - market price (closing price):

Example for January 5 ⇒ Difference at Estimated Price = 36,78 - 35,33 = 1,45 €

The expected correction of price is the accumulation of the differences for each day, for example: for January 7 =1,450 – 1,400 = 0,050, for 8 January= $|-0{,}170| -$ 0,050= 0,120 …etc.

Price correction expected on day D = [abs (difference in estimated price on day D-1) - Correction expected on day D-1]

So applying those formulas, we obtain this table:

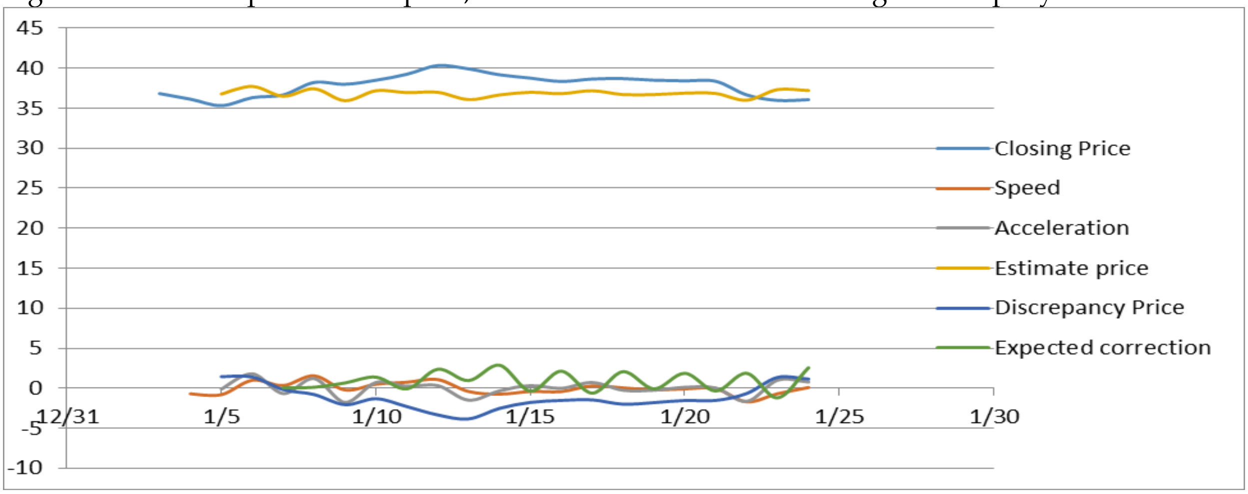
Table 2: Share price estimates for Peugeot Company in 2000.

Date	Closing Price	Speed	Acceleration	Estimate Price	Discrepancy Price	Expected correction
03-01	36,83	-	-	-	-	-
04-01	36,13	-0,70	-	-	-	-
05-01	35,33	-0,80	-0,10	36,78	1,450	-
06-01	36,33	1,00	1,80	37,73	1,400	-
07-01	36,67	0,34	-0,66	36,50	-0,170	0,050
08-01	38,22	1,55	1,21	37,44	-0785	0,120
09-01	38,00	-0,22	-1,77	35,95	-2,055	0,665
10-01	38,50	0,50	0,72	37,19	-1,310	1,390
11-01	39,25	0,75	0,25	36,96	-2,295	-0,080
12-01	40,33	1,08	0,33	37,00	-3,335	2,375
13-01	39,92	-0,41	-1,49	36,09	-3,835	0,960
14-01	39,18	-0,74	-0,33	36,67	-2,515	2,875
15-01	38,77	-0,41	0,33	37,00	-1,775	-0,360
16-01	38,35	-0,42	-0,01	36,83	-1,525	2,135
17-01	38,65	0,30	0,72	37,19	-1,460	-0,610
18-01	38,70	0,05	-0,25	36,71	-1,995	2,070
19-01	38,50	-0,20	-0,25	36,71	-1,795	-0,075
20-01	38,42	-0,08	0,12	36,89	-1,530	1,870
21-01	38,37	-0,05	0,03	36,85	-1,525	-0,340
22-01	36,67	-1,70	-1,65	36,01	-0,665	1,865
23-01	35,98	-0,69	1,01	37,34	1,355	-1,200
24-01	36,07	0,09	0,69	37,18	1,105	2,555

Conclusion

With the data from table 2, the result is the different curves summarized in the following figure:

Figure 2: Curves of prices with speed, acceleration & correction of Peugeot Company



Curves of the figure n° 2 above, permit to deduce that from after the corrections brought by the traders (expected corrections), the estimated price and the price of the market (close price) cross by January 7th and between 22 and 23rd on January, 2000. Nevertheless, the different speeds give an idea to market trends in increase or the decrease, whereas the accelerations show the reversal of the trend. The deviations give an idea to the margins which can be realized, in low thresholds, it's necessary to expect low volumes (fewer liquid assets) and to assimilate Gap (less transaction on certain price levels).

Otherwise, on the mathematical plan, a function increase or decrease when the derivate is positive or negative (similarity with the speed of our application). The sign of the derivate gives an indication of the trend. As for the change of the trend, that proceeded to the calculation of the second derivate of the function (or derivate of derivate), when at zero, gives an indication to the change of the trend direction.

As a consequence, the estimation of a price of a share in the short term asks for a series of information summarized in the figure above with the hypothesis that no relevant information affects the company concerned by the estimation.

References

Béchu, T & Bertrand, É 1998, L'analyse Technique, pratiques et méthodes, 3 th edn, Economica, Paris, France.

Botraider, Bourse big data, 2007, Available from: www.botraiders.com/volatilite [10/february 2018].

Bourse direct 2004, brokerage company. Available from: www.boursedirect.fr/fr/. [05 February 2018].

Brown, SJ, Goetzmann, WN & Kumar; A 1998, The Dow Theory: William Peter Hamilton's Track Record Reconsidered. The Journal of Finance, Vol. LII, No. 4, August 1998.

Cessac, J & Tréherne, G 1972, Physique, Edition FERAND NATHAN, Paris, France.

Dublanc, A 1991, Découverte de l'analyse technique, Valor Éditions, Paris, France.

Edwards, RD, WHC, Bassetti & J, Magee 2007, Technical analysis of stock trends, 9th edn Hardcover, CRC Press, Taylor and Francis Group, USA.

Fama E.F 1970, Efficient capital markets, the journal of finance, vol. 25, no 2, pp 383-417.

Internet pattern 2018, Wikipedia, 8 February 2018. Available from:
https://en.wikipedia.org/w/index.php?title=Pattern [10 January 2018].

MURPHY, J.J 1986, Technical Analysis of the Financial Markets: A Comprehensive Guide to Trading Methods and Applications, New York Institute of Finance A Prentice-Hall Company.

Neely, C.J & Weiler P.A., 2011, Lessons from the Evolution of Foreign Exchange Trading Strategies, Federal Reserve Bank of St, Louis Working Paper Series.

Sennhauser, David 2008, Application de l'analyse technique financière à l'analyse de traces d'exécution de programmes, High School of Management (HEG-GE), Carouge Edition, Geneva, Swiss.

Corporate bond market as a source of capital funds in emerging economies – the Indian experience

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Keywords
Corporate Finance, Corporate bonds, Debt, Term Loans

Abstract
Over the years it has become fashionable to argue that a vibrant bond market would be vastly superior to the present bank-led model of debt finance for industries and businesses in emerging economies. While it works well in most developed economies, in countries like India, despite all efforts of the central bank and the financial markets regulators or regulatory authorities, business firms still depend largely on the banking system for their debt capital funds. This study is an attempt to enquire into whether it is the measurable parameters such as cost of funds or the buoyancy in the economy that affects the firms' decisions or not. If not, it would follow that other qualitative or behavioral (or non-measurable) factors may be responsible for the lack of firms' appetite for issuing bonds.

Introduction

Over the years it has become fashionable to argue that a vibrant bond market would be vastly superior to the present bank-led model of debt finance in most developing countries such as India. Over the past few decades the Reserve Bank of India (the central bank of India) and the Securities & Exchanges Board of India have been trying desperately to create an active and vibrant corporate bond market. But all their efforts have not brought about much change in the scenario. Firms are still largely dependent on the banking industry for their capital needs. Either banks are their first choice or they are unable to tap the market as there is very low appetite for corporate bonds from the investing public. It has become a bit of a vicious cycle! The often quoted refrain is that corporates should raise their debt funds from the capital market rather than from the banks. Very little research seems to have gone in trying to understand the firms' perspective as to why they prefer banks. This study is an attempt to explore and figure out how the firms in India decide to raise their debt capital; chose between capital markets and banks.

1.1 Literature review

Corporate bonds markets have been the subject of numerous studies. But most of them are in the field of capital structure. - Cobham, David, and Subramaniam (1998), Turner (2002), Guha, Basudeb, and Bhaduri. (2002) Bhole & Mahakud (2004), Chakraborty (2010). Titman and Wessels (1998) analyze the explanatory power theories of optimal capital structure. Taggart (1977), in his study on corporate financing decisions, concluded that movements in the market values of long term debt and equity are important determinants of the corporate security issues. Myers (1977) found that corporate borrowing is inversely related to the proportion of market value accounted for by real options. It also rationalizes other aspects of corporate borrowing behavior, for example the practice of matching maturities of assets and debt liabilities. Mason & Jeffrey (1990) found that firms are concerned with who provides their financing, not just with the debt/equity distinction. Debt is more than just debt; equity is more than just equity.

Gabbi & Sironi(2005) examined the factors that determine corporate bonds pricing by analyzing the spreads of Eurobonds issued by major G-10 companies during the 1991–2001 period. He found that bond ratings appear as the most important determinant of yield spreads, with investors' reliance on rating agencies judgments increasing over time. And, the primary market efficiency and the expected secondary market liquidity are not relevant explanatory factors of the spreads and cross-sectional variability. Further, rating agencies adopt a different, 'through the cycle', evaluation criteria of default risk with respect to the forward looking one adopted by bond investors. Elton et al (2004) investigate several bond characteristics that have been hypothesized as affecting bond prices and show that from among this set of measures default risk, liquidity situation, tax liability, recovery rate and bond age leads to better estimates of spot curves and for pricing bonds. Titman (2002) presents anecdotal evidence that suggests that financial markets, often, are not integrated and discusses the implications of this lack of integration on corporate financing strategies. He argues that market conditions, which are determined by the preferences of individuals and institutions that supply capital, can have an important bearing on how firms raise capital and the extent to which they hedge. Cantillo & Wright (2000) investigated which companies finance themselves through financial intermediaries and which borrow directly from arm's length investors. He found that large companies with abundant cash and collateral tap credit markets directly; these markets cater to safe and profitable industries, and are most active when riskless rates or earnings of the financial intermediaries are low.

Some studies have concentrated on Indian and other emerging markets. Sameul (1996) studied the role of the stock market in providing finance to firms in India and came to the conclusion that the development of the stock markets is unlikely to spur corporate growth. Anand (2002) studied the corporate finance practices vis-a-vis capital budgeting decisions, cost of capital, capital structure, and dividend policy decisions in India. Sengupta (1998) found evidence that firms with high disclosure quality ratings from financial analysts enjoy a lower effective interest cost of issuing debt.

Apart from academic studies, there have been numerous policy papers and committee reports which have studied the issues regarding reluctance of firms in raising debt capital through issue of bonds. There has been a number of reports by committees set up by the Reserve Bank of India (central monetary authority of India) and the government of India, on development of corporate bond markets in India viz. Report of High Level Expert Committee on Corporate Bonds and Securitization (R. H. Patil Committee, 2005), Report of the High Powered Expert Committee on Making Mumbai an International Financial Centre (Percy Mistry Committee, 2007), A Hundred Small Steps [Report of the Committee on Financial Sector Reforms (CFSR) headed by Raghuram Rajan (2009). Report of the Khan Committee (2016) is the latest in a series of policy papers. All these committees have recognized many structural features of the corporate bond market in India which hinder the development of a deep corporate bond market.

As mentioned earlier, there has been a dearth of research and understanding of factors that affect the firms' decisions to raise funds through bank loans or to tap the bond markets. A number of academic and other articles and reports have indicated many issues with the current state of bond markets in emerging economies such as lack of appetite and the buy & hold attitude of the few investors who do invest. A sense of frustration appears to have gripped the regulators as to why despite so many initiatives the corporate bonds market does not seem to have evolved. The main issue is whether it has made a significant progress and whether basic factors considered by prudent business persons or firms influence decisions regarding where to raise funds. As such an empirical study using available data and from the perspective of various stakeholders, might help to add to the understanding. This analysis could bring out the relevant economic factors that influence the firms' choice for raising capital.

1.2 Objectives of the study

The objective of the study is to enquire whether economic factors influence the firms' decisions to tap the bonds market vis-à-vis from banks. In particular, the study attempts to examine specifically:

- Has there been an improvement in the amount of funds raised in the bonds market in India?
- Do economic factors play a significant role in influencing the firms' decisions to tap bond markets?
- Do firms decision to tap the bonds market gets influenced by the current bond market yields?
- Does the buoyancy in the economy have an effect on the funds raised in the bonds market?

1.2 Methodology

The analysis of the study is based on secondary data. This is because it is not feasible to collect primary data on how and when firms decide to tap the bonds market as it tends to be strategic information which the firms are unwilling to part with. Therefore, a survey may not take us far as it is not likely to be reliable. Moreover, the study is an exploratory first attempt to examine whether actual data supports the widely held opinions and heuristics.

1.2.1 Design of the study

Firms need capital funds and they decide on the leverage ratio. Based on this, firms have a choice of raising the required debt funds either from banks or by tapping the bonds market. The economic factors which could influence, and logically should, are whether it is time for investment (buoyancy in the economy), and the cost of funds. Other factors such as ease of raising funds, rules and regulations etc. are relevant but tend to be qualitative variables.

1.2.2 Variables considered in the analysis are:

Bank credit to commercial sector (RBI)

Bonds issued during a calendar quarter (SEBI). This indicates the amount of funds raised in that quarter. Base rates of banks (RBI) – banks are required to announce the "base rates". These are the rates at which they lend to their AAA rated customers and are equivalent to the 'prime lending rate'. Firms are charged a risk premium over this base rate. While different firms are charged different rates, to study the significance of the cost of funds, the risk premium would not matter; risk premium is charged both in the case of bank loans and as a spread over sovereign and AAA rated bonds, in the bond markets.

Data published by the Reserve Bank of India gives the range of the base rates declared by all banks. For the analysis we have taken the average of the high and low as the cost of bank loans. As regards the buoyancy and prospects of the economy, it would be prudent to take the GDP growth as proxy for the future expectations of the economy. However, there are two issues with this. One, GDP is an all-encompassing macroeconomic variable including all the sectors. But bonds are issued mainly by bigger corporate entities; smaller firms' needs are generally low and it may not make sense for them to go through the rigorous procedure of issuing bonds. As such the Index of Industrial Production seems to be the more appropriate variable.

Also, the base for the GDP data has been revised recently and revised data for previous periods has not yet been released. Moreover the data for the overlapping quarters shows a wide variation between the two base years.

Therefore, the Index of Industrial Production (IIP) has, thus, been used as a proxy to capture the buoyancy of the economy or expectations of firms.

3 Historical background

Historically firms in India have depended on the credit given by commercial banks for their capital requirements. Soon after independence, there were concerted efforts to accelerate economic growth and banks were expected to support these efforts by providing both working capital finance and term loans for capital expenditure. Banks' role was crucial also because of the almost nonexistent capital markets in India. To further increase their role and contribution, all major banks were nationalized in 1969 bringing almost 80% of the commercial banking business under government hands. Banks thus provided both working capital facilities and debt capital to industries. Despite many private banks being set up in the later years, the dependence of firms on banks continues. Perhaps it is because of the ease of raising funds through this channel. And, perhaps also because banks in India have a long tradition and have had vast experience in lending long term.

4 Current Scenario

It has been argued that this has led to a cozy relationship between the two and has resulted in 'crony capitalism'. Absence of bond markets can result in excessive reliance on bank finance; bond markets allocate and price risk more efficiently; bond markets provide a ready source of long-term finance without asset-liability mismatch problems of the kind faced by banks, and most importantly, are able to act against troubled borrowers more swiftly and effectively than banks; debt markets help develop the derivatives market – the much-touted bond-currency-derivatives nexus - facilitating development of hedging mechanisms/enabling greater risk diversification by market participants. Above all, bond financing, it is argued, instills a greater sense of credit discipline among borrowers as defaults are immediately punished by markets. Recalcitrant borrowers are either shut out of the market or have to pay a much higher rate of interest.

These are not small advantages. Add to that the fact that banks have burnt their fingers financing infrastructure. And, the virtual freeze on infrastructure financing as a consequence in a scenario where alternative channels of funding are non-existent and the case for a vibrant bond market becomes blindingly self-evident.

The two main financial sector regulators the Reserve Bank of India (RBI), and the Securities and Exchange Board of India (SEBI) have been trying hard for quite some time to develop the corporate bond market in India. As a result, total corporate bond issuance increased from Rs 174,781 crores in 2008-09 to Rs 413,879 crore in 2014-15 while the number of issuances increased from 1,042 in 2008-09 to 2,636 in 2014-15. The increase was of over 235% and 150% respectively in this period.

However, the secondary market trading for these bonds remains limited. The net result is corporate bonds are not a significant part of the financial market and account for little over five per cent of GDP compared to 31% in the case of China or a much higher 78% in the case of South Korea. Indeed the private corporate bond market today is just a tiny fraction of a much larger bond market dominated by government debt. This is not unusual in a developing country with a large fiscal deficit. Large government borrowing, in tandem with statutory pre-emptions like the SLR (statutory liquidity ratio) on banks, often results in crowding out private corporate bond issues.

5 Data analysis

5.1 Evolution of the corporate bond market in India

The data on amounts raised by firms in India in the bonds market and from banks is given in Appendix A. It is evident that the proportion of funds raised by firms does show that a significant proportion is raised by tapping the bond market. But it does not show any significant trend as can be seen from Fig 1. This means that the capital raised by issue of bonds has rising at a rate not very different from the rate of overall funds.

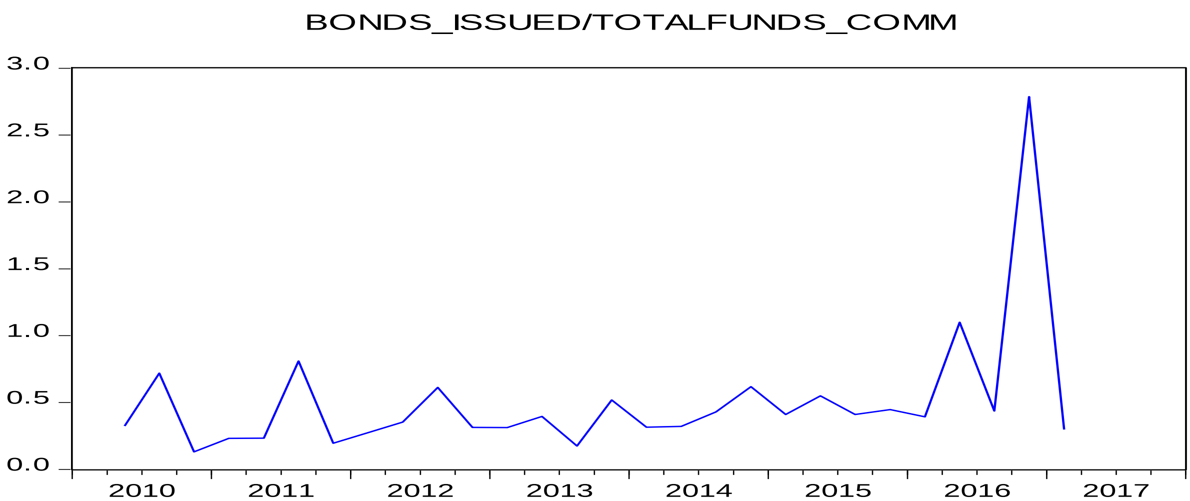


Fig 1:Ratio of bonds issued to total funds raised by firms.

Also, as is evident, there is a sudden spike in the last quarter of 2017. This may be attributed to the effect of demonetization of higher denomination currencies in India. A significantly large proportion of business payments in India are done in cash. And when the window of two months was provided for utilization of the currency notes, firms repaid their dues to banks in huge amounts; perhaps to avoid changing old notes to new ones and the consequent questioning by tax authorities. Hence the change in the credit given by banks to the commercial sector is negative; hence the more than 100% proportion.

Ignoring the blip as outlier, it is evident that a significant proportion of the funds required by the firms in India is raised by tapping the bonds market. But, there is no significant rising trend.

5.2 Factors influencing decisions to tap bonds market

The quarterly data on amount raised through issue of bonds (BONDS_ISSUED), base rate (BASE_RATE), 10 year Sovereign Bonds (GOVT_YLD) and Index of Industrial Production (IIP), has been used for the empirical analysis. The data is given in Appendix B for reference. Many linear regression models based on our hypothesis were carried out to understand the relationship between bonds issued and base rate, yields of sovereign (government of India) bonds and buoyancy in the economy. While it is generally the GDP growth that is taken as an indicator of the buoyancy in the economy or the expectations of the future, in India the GDP series has undergone a change in estimation. In 2015, the base year was changed from 2004-05 to 2011-12. And the recalculated back series have not yet been published. Moreover, GDP encompasses all economic activity while the Index of Industrial Production (IIP) is an estimate of the output of the industrial sector. Since bonds are issued only by mid and large corporate sector, it was felt that the IIP data would be more appropriate for the analysis.

5.2.1 Effect of base rates of banks on the bonds issue

Since bank loans are close substitutes for bonds issue, the cost of banks loans is likely to influence negatively the amount raised by firms through issue of bonds. Although, a preliminary scatter plot between these two does not show a clear relationship. This is evident from the scatter plot of bonds issued to base rate is given below in Fig 2. This is, possibly, due to omitted variable bias as the other factors affecting bonds issued are not taken into consideration.

However, as expected, when more variables that are likely to affect the dependent variable are considered, our results become more meaningful.

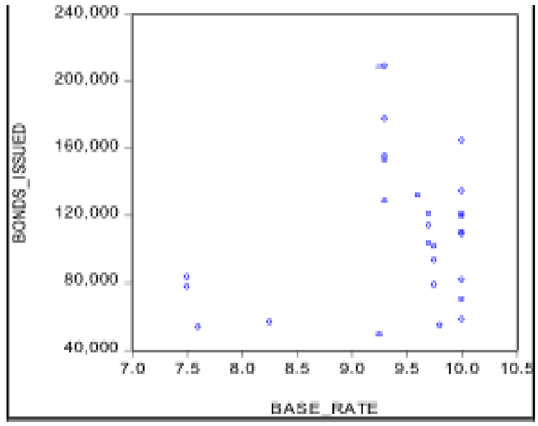


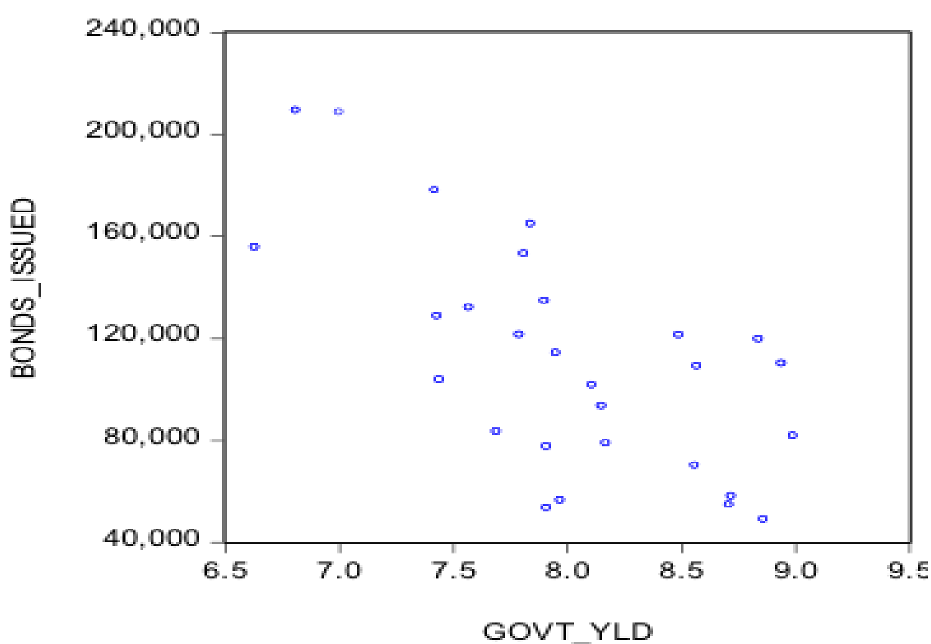
Fig 2: Scatter plot of bonds issued to base rate

5.2.2 Effect of sovereign yields on amount raised through bonds issue

Corporate bonds are issued at par with a coupon equal to the yields at which bonds with similar credit rating are being traded in the market. Corporate bonds' yields are at a spread over the sovereign yields. And generally these yields go up or down as the sovereign bonds' yields change; the spread being stable. Therefore, the yield on the benchmark 10 year government of India bonds is taken as the proxy for the cost of borrowing. The scatter plot of bonds issued against the government yields given in Fig 3 shows that there is an inverse relationship between the two. This is as expected; higher the cost of borrowing lower would be the amount borrowed.

5.2.3 Effect of IIP on amount raised through bonds issue

The scatter diagram of bonds issued against the IIP is given in Fig 4. As expected there is a positive relationship. The growing IIP indicating buoyancy encourages firms to invest more and so borrow more.



5.2.4 Regression Analysis

Next, we examine the multiple regression analysis incorporating the variables discussed above in our Model. We look at the effect of base rates, government yields & IIP on amount raised through bonds issued over the June 2010 and March 2017 period. The results of regression of base rate, government yield and the Log (IIP) are shown in Table 1 below.

Dependent Variable: LOG(BONDS_ISSUED)
Method: Least Squares
Sample (adjusted): 2010Q2 2017Q1
Included observations: 28 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.895108	4.492077	1.089720	0.2867
BASE_RATE_AV	0.229423	0.086519	2.651703	0.0140
GOVT_YLD	-0.466606	0.093538	-4.988388	0.0000
LOG(IIP)	1.574020	0.860935	1.828269	0.0800

R-squared	0.637367	Mean dependent var	11.54252
Adjusted R-squared	0.592038	S.D. dependent var	0.413231
S.E. of regression	0.263939	Akaike info criterion	0.305365
Sum squared resid	1.671929	Schwarz criterion	0.495680
Log likelihood	-0.275110	Hannan-Quinn criter.	0.363546
F-statistic	14.06086	Durbin-Watson stat	1.845941
Prob(F-statistic)	0.000017		

Table 1:

It is evident that there is no autocorrelation in the regression result as can be seen from the regression result as well as the LM Test (see Table 1 and 2). This means our results can be used for interpretation as the residual are not inter-related over time.

F-statistic	0.061733	Prob. F(2,22)	0.9403
Obs*R-squared	0.156261	Prob. Chi-Square(2)	0.9248

Test Equation: Dependent Variable: RESID
Method: Least Squares
Sample: 2010Q2 2017Q1
Included observations: 28
Pre-sample missing value lagged residuals set to zero.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.139872	4.778736	-0.029270	0.9769
BASE_RATE_AV	-0.004127	0.093265	-0.044251	0.9651
GOVT_YLD	-0.003637	0.101270	-0.035910	0.9717
LOG(IIP)	0.040387	0.937910	0.043061	0.9660
RESID(-1)	0.040621	0.226223	0.179561	0.8591
RESID(-2)	-0.070796	0.247556	-0.285978	0.7776

R-squared	0.005581	Mean dependent var	-4.44E-16
Adjusted R-squared	-0.220424	S.D. dependent var	0.248844
S.E. of regression	0.274905	Akaike info criterion	0.442626
Sum squared resid	1.662599	Schwarz criterion	0.728098

Log likelihood	-0.196761	Hannan-Quinn criter.	0.529898
F-statistic	0.024693	Durbin-Watson stat	1.918121
Prob(F-statistic)	0.999683		

It is therefore evident that yields have a negative effect while both the base rates and IIP have a positive effect. Thus, indicating that firms do take a call based on the yields at which they can issue bonds and the cost of the alternative source of funds from the banking system and the performance of the economy which gets reflected in rate of growth of IIP.

6 Observations and conclusions

A significant portion of debt capital is raised by firms in India from the bond markets. But, the absence of a significant upward trend in the proportions raised through issue of bonds is not a good indicator. Given that a number of initiatives have been taken by the regulators and the government, one would expect that firms would be motivated to raise a higher proportion from the capital markets. In fact, almost all the debt capital required should logically be raised through this route.

If it is assumed that enough initiatives have been taken to make it hassle free to issue bond then the results of this study indicate that there are other factors, not economic factors which inhibit firms in emerging economies such as India from approaching the corporate bond markets.

The base rate, rate at which banks give loans to firms, positively impacts the amount raised by firms. Higher the interest rates more the funds raised by firms tapping the bond market. This stands to logic as corporate bonds are a substitute to bank term loans. This finding is quite reassuring in the sense that it is the data that shows that firms base their preferences mainly on cost of alternative sources of funds. Sovereign bonds' yields have a negative impact on the amount raised through issue of bonds in India. Again, this is rational and on expected lines. Higher the yields, higher are the cost of funds and so it should have a negative impact on issue of bonds.

The buoyancy in the economy, measured by the IIP in India, has a positive impact on the amount raised through issue of bonds. Evidently, firms go by these numbers to gauge the future prospects. If they see good times, they invest more.

Finally, one could conclude that firms take rational decisions. And, economic factors such as interest rates do matter to firms in India.

7. Limitations and further research

There appear to be other variables which might also affect the decisions of the firms. A more detailed study including factors, not considered here, could help us improve the understanding. Apart from quantifiable variables perhaps other factors such as convenience, ease of raising funds etc. affect the decisions significantly. These need to be explored.

References

Anand, Manoj; Corporate finance practices in India: a survey. Vikalpa, 27(4), 2002., 29-56.

Bhole, L. M., and Jitendra Mahakud. "Trends and determinants of corporate capital structure in India: A panel data analysis." Finance India 18.1 (2004): 37.

Chakraborty, Indrani. "Capital structure in an emerging stock market: The case of India." Research in International Business and Finance 24.3 (2010): 295-314.

Cobham, David, and Ramesh Subramaniam. "Corporate finance in developing countries: new evidence for India." World Development 26.6 (1998): 1033-1047.

Edwin J. Elton, , Martin J. Gruber, , Deepak Agrawal, , Christopher Mann, ; Factors affecting the valuation of corporate bonds Original Research Article; Journal of Banking & Finance, Volume 28, Issue 11, November 2004, Pages 2747-2767

Giampaolo Gabbi and Andrea Sironi ; Which factors affect corporate bonds pricing? Empirical evidence from Eurobonds primary market spreads; The European Journal Of Finance Vol. 11 , Iss. 1,2005

Guha-Khasnobis, Basudeb, and Saumitra N. Bhaduri. "Determinants of capital structure in India (1990-1998): a dynamic panel data approach." Journal of Economic Integration (2002): 761-776.

MacKie-Mason, Jeffrey K. "Do firms care who provides their financing? Asymmetric information, corporate finance, and investment". University of Chicago Press, 1990. 63-104.

http://www.jstor.org/stable/248186

Miguel Cantillo&Julian Wright; How Do Firms Choose Their Lenders? An Empirical Investigation The Review of Finance Studies (2000) 13 (1): 155-189. ; https://doi.org/10.1093/rfs/13.1.155

Myers, Stewart C., Determinants of corporate borrowing, Journal of Financial Economics, 5, issue 2, 1977, , p. 147-175.

ParthaSengupta ; Corporate Disclosure Quality and the Cost of Debt; The Accounting Review

Samuel, C. (1996). The stock market as a source of finance: A comparison of US and Indian firms. Policy research working paper 1952; World Bank Publications.

Khan, H. R. ,Report of the Working Group on Development of Corporate Bond Market in India, 2016, https://rbi.org.in/Scripts/PublicationReportDetails.aspx?UrlPage=&ID=853

Taggart, Robert A. "A Model of Corporate Financing Decisions." The Journal of Finance, vol. 32, no. 5, 1977, pp. 1467–1484. JSTOR, www.jstor.org/stable/2326804.

Titman, Sheridan ; The Modigliani and Miller Theorem and the Integration of Financial Markets Financial Management Vol. 31, No. 1 (Spring, 2002), pp. 101-115

http://www.jstor.org/stable/3666323

Titman, Sheridan and Wessels, Roberto, The Determinants of Capital Structure Choice, Journal of Finance, 43, issue 1, 1988), p. 1-19.

Turner, Philip. "Bond markets in emerging economies: an overview of policy issues." BIS papers 11 (2002): 1-12.Vol. 73, No. 4 (Oct., 1998), pp. 459-474

Appendix A:

Quarter Ended	Bonds issued during the Qtr	Increase in Bank Credit to Commercial Sector	Total funds taken by commercial sector	proportion of bonds to total
Jun-2010	83,496	1,74,516	2,58,012	32.36%
Sep-2010	77,476	30,313	1,07,790	71.88%
Dec-2010	53,472	3,52,690	4,06,162	13.17%
Mar-2011	56,502	1,87,748	2,44,250	23.13%
Jun-2011	48,962	1,60,832	2,09,795	23.34%
Sep-2011	81,809	19,196	1,01,005	80.99%
Dec-2011	70,168	2,88,051	3,58,219	19.59%
Mar-2012	1,09,130	2,87,582	3,96,712	27.51%
Jun-2012	78,824	1,43,982	2,22,806	35.38%
Sep-2012	93,424	58,946	1,52,370	61.31%
Dec-2012	1,01,636	2,22,016	3,23,652	31.40%
Mar-2013	1,14,142	2,50,585	3,64,727	31.30%
Jun-2013	1,03,705	1,58,357	2,62,062	39.57%
Sep-2013	54,653	2,57,570	3,12,223	17.50%
Dec-2013	1,10,155	1,02,082	2,12,237	51.90%
Mar-2014	1,19,639	2,59,420	3,79,059	31.56%
Jun-2014	58,034	1,22,406	1,80,440	32.16%
Sep-2014	1,21,248	1,61,236	2,82,484	42.92%
Dec-2014	1,34,742	83,277	2,18,018	61.80%
Mar-2015	1,64,938	2,37,509	4,02,448	40.98%
Jun-2015	1,21,283	99,555	2,20,838	54.92%
Sep-2015	1,32,066	1,89,249	3,21,316	41.10%
Dec-2015	1,53,235	1,89,426	3,42,661	44.72%
Mar-2016	1,78,009	2,75,114	4,53,123	39.28%
Jun-2016	1,28,743	(11,621)	1,17,122	109.92%
Sep-2016	2,09,371	2,69,348	4,78,720	43.74%
Dec-2016	1,55,758	(99,885)	55,873	278.77%
Mar-2017	2,08,695	4,90,520	6,99,215	29.85%

Appendix B: Data – Factors influencing tapping bonds market

	Quarter Ended	Bonds issued during the Qtr	Base Rate Mid	10 yr GOI Yld	IIP
1	Jun-2010	83,496	7.75	7.69	156.6
2	Sep-2010	77,476	8.00	7.91	160.3
3	Dec-2010	53,472	8.30	7.91	175.6
4	Mar-2011	56,502	8.88	7.97	193.1
5	Jun-2011	48,962	9.63	8.86	171.4
6	Sep-2011	81,809	10.38	8.99	164.3
7	Dec-2011	70,168	10.38	8.56	180.3
8	Mar-2012	1,09,130	10.38	8.57	187.6
9	Jun-2012	78,824	10.13	8.17	168.0
10	Sep-2012	93,424	10.13	8.15	163.1
11	Dec-2012	1,01,636	10.13	8.11	179.3
12	Mar-2013	1,14,142	9.98	7.95	194.2
13	Jun-2013	1,03,705	9.98	7.44	164.9
14	Sep-2013	54,653	10.03	8.71	167.5
15	Dec-2013	1,10,155	10.13	8.94	179.5
16	Mar-2014	1,19,639	10.13	8.84	193.3
17	Jun-2014	58,034	10.13	8.72	172.0
18	Sep-2014	1,21,248	10.13	8.49	171.8
19	Dec-2014	1,34,742	10.13	7.90	185.9
20	Mar-2015	1,64,938	10.13	7.84	198.1
21	Jun-2015	1,21,283	9.85	7.79	179.3
22	Sep-2015	1,32,066	9.78	7.57	178.2
23	Dec-2015	1,53,235	9.50	7.81	184.2
24	Mar-2016	1,78,009	9.50	7.42	198.7
25	Jun-2016	1,28,743	9.50	7.43	183.2
26	Sep-2016	2,09,371	9.48	6.81	179.5
27	Dec-2016	1,55,758	9.48	6.63	184.0
28	Mar-2017	2,08,695	9.43	7.00	191.3

Using expert cross-disciplinary teams in audit engagements

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Keywords
Auditing/assurance of sustainability reporting, financial disclosure, corporate social responsibility

Abstract

The broad sustainability agenda has created a wide array of new/novel questions regarding reporting and public disclosure by business firms. Stakeholders now demand a reckoning of the impact, in an ever-expanding context, that economic activities have on the environment. Proposed techniques for sustainability accounting, and the accompanying social accountability reporting, have the potential to be helpful (1) to organizations--in their managing, planning, and control functions; (2) to investors—in their normal buy-sell-hold decisions for allocating resources; (3) to government units—as they attempt to foster the common good for all citizens; (4) to consumers—in their role as arbiters of outputs that the macro economy should/will provide; and (5) to the general populace—as it makes collective judgments that will impact the planet's future physical health and welfare.

For the sustainability agenda to move forward, though, there must be both systematic disclosure of negative production externalities that affect the environment and an acceptable level of assurance that such disclosures meet common standards of completeness and quality. This research seeks to synthesize best practices in the auditing and assurance arena for corporate social responsibility. The special focus here is on the carbon pollution reduction scheme and the proposed multidisciplinary combined involvement of both scientific and financial specialists on audit teams.

Financial development and the social cost of financial intermediation in Africa

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Key words
Financial Development, Social Cost, Financial Intermediation

Abstract

Purpose: This paper investigates the effect of financial development on the social costs of financial intermediation across a large number of banks in Africa. The study distinguishes between countries that are financially developed and those that are not financially developed to examine the impact of financial development on the social costs of financial intermediation.

Design/ Methodology: A sample of 260 banks from 29 countries in Africa is used over an eight-year period from 2006 to 2013. We employ both Random Effect and GMM techniques to resolve the issues of unobserved heterogeneity and endogeneity.

Findings: We observe that overall, financial development reduces the social costs of intermediation. We also determine that the social costs of intermediation are lower for countries that have more developed financial systems compared to those with less developed financial systems.

Practical implication: Our study is useful because it suggests that if countries want to reduce their social costs of intermediation, they should develop their financial systems.

Trend-Chasing and home price dynamics: evidence from a novel index measure of housing sentiment

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Keywords
Home price dynamics, Trend-Chasing, Housing sentiment correction, housing risks

Abstract
Previous studies suggest the housing asset class is vulnerable to sentiment, particularly over extrapolation bias (Shiller (1990)). I specify home price dynamics as a function of over extrapolation-based trend-chasing, and a sentiment-correction when the mispricing becomes large and more recognizable. To calibrate this specification and avoid the difficulties with measuring fundamental values directly, I construct indices of housing sentiment called HSENT. I find momentum dominates the sentiment correction component of price dynamics until HSENT becomes extreme. Over 3-10 years HSENT negatively predicts housing returns, but positively predicts various housing risks, consistent with HSENT capturing bias in expectations.

1. Introduction

In the economic and financial media, the large run up in home prices in the early 2000s followed by the dramatic fall in the late 2000s has popularized the hypothesis that such price swings are driven, at least in part, by sentiment. The most prominent scholar to advance this hypothesis has been Nobel laureate Robert Shiller who, at least as early as 2005, discusses what he saw as a sentiment-based housing bubble in Irrational Exuberance (Shiller (2005)).

Despite the intuitive and popular appeal of Shiller's “irrational exuberance” explanation of the record home prices of 2005-2006, scholarly work has been mixed over whether such price swings can be interpreted as sentiment-driven. A central problem with measuring sentiment-based mispricing in the housing market is that a dollar amount for fundamental value is much harder to obtain compared to many income generating equity and fixed-income, and commercial real estate assets. I define investor sentiment as bias in investor expectations about future returns and risks in the housing market. In a market such as single-family housing where fundamental value is difficult to define, it is also difficult to identify the degree to which a discrepancy between the market price and fundamental value can be explained by investor sentiment (Ling, Ooi, and Le (2013b)).

Although traditional fundamental variables such as income, employment, and population are widely available, they do not necessarily allow investors to make a straight forward and uncontroversial estimate of what the specific fundamental value is in dollars. While fundamental variables may explain prices in a regression context, their ability to explain the rational and sentiment based components of prices is confounded within the estimated coefficients; investor sentiment can be easily hidden within the component of prices explained by fundamentals when investors overreact to changes in fundamentals or exhibit other forms of sentiment.

Without a dollar amount for fundamental value, it is difficult to argue whether prices are too high or too low. Yet, this difficulty in calculating fundamental value in the housing market gives reason to suspect that investor sentiment, particularly overextrapolation bias (Shiller (1990)) may have a significant impact on home prices. Survey evidence from the mid-2000s documents a significant presence of trend chasers in the housing market while prices grew to historic highs (Piazzesi and Schneider (2009)).

I argue that the housing market is vulnerable to trend-chasing because market participants have difficulty in valuing homes on the basis of discounted cash flows or by generating a dollar estimate of fundamental value from fundamental variables. In this paper trend-chasing is defined as buying or selling behavior motivated by interpreting recent price changes as a same-signed signal of future price changes; both Case and Shiller (2003) and Himmelberg, Mayer, and Sinai (2005) use this definition of trend-chasing specifically in regards to price increases as their definition of a housing bubble. The informational conditions under which many trend-chasing models operate such as incomplete or noisy private information about fundamentals, over-extrapolative expectations, and profit opportunities for momentum traders early in the cycle are all present in the housing market.

The combination of (1) a documented presence of trend chasers in the housing market, and (2) the difficulty with discerning single-family housing fundamental values motivates my specification of home price dynamics in which trend-chasing (equivalently, positive feedback investment, or momentum investing) can exacerbate mispricing. There are also several underlying psychological reasons why we might expect trend-chasing in the housing market, such as over extrapolation bias (Case and Shiller, (1988; Barberis (2012), or herding (Baddeley (2005).

I specify home price growth as positively autocorrelated with past growth, and mean reverting with respect to sentiment-based mispricing. The autocorrelation component captures the widely documented trend-chasing behavior of homebuyers that leads to momentum in the housing market. Under my specification, when trend-chasing causes the magnitude of sentiment-based mispricing to increase, the sentiment component of prices becomes more recognizable. As a result, the correction of the sentiment component of prices gets stronger, and the trend-chasing component of price dynamics momentum diminishes.

However, only when the magnitude of sentiment becomes sufficiently large relative to the magnitude of past returns does a corrective reversal occur in the direction of home price growth. This is because as sentiment-based mispricing becomes more extreme it becomes increasingly recognizable, so investments based on the increasingly perceptible differences between home prices and fundamental value begin to counter-balance, then eventually dominate investments based on trend-chasing. When this happens, prices begin to return toward fundamental value. The first main contribution of this paper is to show that the well-known momentum and reversal patterns in housing cycles can be explained by a dynamic tension between trend-chasing and corrections in sentiment-based mispricing.

To resolve the dilemma in measuring mispricing by first estimating a dollar amount for fundamental value, I take a principle components approach similar to the stock market sentiment proxies in Baker and Wurgler (2006, 2007). I use established theories concerning housing economics and price dynamics to create several individual proxies of housing sentiment. I then combine these individual variables into annual indices of housing sentiment, called HSENT, for each city in my sample using principle components analysis (PCA). The value of this approach is that the HSENT proxy of housing sentiment does not require estimating fundamental value as a first step; Ling, Ooi, and Le (2013b) also recognize this important advantage in developing a survey based measure of housing sentiment.

The HSENT measure is negatively related to subsequent home price returns over the next decade. However, over the same period HSENT is positively related to housing return volatility, the covariance of housing returns with stock market excess returns, and the covariance of housing returns with GDP growth. This is evidence that the HSENT proxy does indeed capture bias in expectations about the housing market, i.e., housing sentiment. Overall, my housing sentiment measures are consistent with the popular hindsight that home prices entered a bubble during the mid-2000s; however, I also find that price levels in several major cities were actually below fundamental value in this same period. While HSENT has only moderate predictive power in the short run (1-3 years), it is clear that it negatively predicts returns over a longer period (5-0years), while also predicting higher housing market risk. This risk-reward dynamic is consistent with HSENT capturing investor sentiment.

I use my annual housing sentiment indices to calibrate the autocorrelation and sentiment mean reversion parameters of the linear home price growth specification. I find that annual home price growth autocorrelation coefficients are between 0.76 and 0.91. After controlling for home price autocorrelation, I find a one standard deviation change in sentiment is associated with between a 1.1% and 1.5% opposite signed change in home prices in the following year. Hence the HSENT proxy is able to disentangle trend-chasing from sentiment correction in home price dynamics.

Economically, these calibration results mean that trend-chasing exacerbates mispricing until it becomes quite large. For example, when a housing market experiences rising prices that lead to moderate overpricing according to the HSENT proxy, then in the next year the amount of overpricing would, on average, grow even more from trend-chasing, rather than correct. As home prices and sentiment-based overpricing continue to increase, price growth slows down. However, only when sentiment is sufficiently large relative to current price growth does a reversal in growth become likely.

Typically, my mean zero measures of sentiment reach between one and three standard deviations from zero before corrections occur. Based on inflation adjusted price levels when HSENT is near zero, this means prices are usually between 20% and 60% away from fundamental value before corrections occur.

2. Related Literature

Piazzesi and Schneider (2009) show that a small number of overly optimistic buyers can drive up the housing market's general price level. They also provide survey evidence that during the housing boom of the 2000s there was always a group of investors who believed it was a good time to buy a home because they believed home prices would rise even further. The existence of these trend-chasing investors supports the idea that directly observable price increases continued to motivate some housing investment during this period, even as prices rose far above fundamentals. Lai and Van Order (2010) also find strong evidence of momentum in the U.S. housing market, which they conclude has at times driven prices away from fundamentals, especially in the 2002- 2005 period.

Momentum can also cause housing sentiment to expand rather than correct in the model of Burnside, Eichenbaum, and Rebelo (2012). In their model, agents with relatively stronger beliefs about the housing market are more likely to convert others to their views, which then leads to a fad in expectations about home prices. An important aspect of their model is that fundamental value in the housing market is difficult to observe. This makes it understandable why social dynamics can cause people to alter their outlook on home prices. Strong housing momentum and trend-chasing also are consistent with the self-enhancing transmission bias form of social dynamics modeled in Han and Hirshleifer (2012).

My central finding, that on average trend-chasing causes sentiment to grow in magnitude, rather than correct, until sentiment becomes extreme, is consistent with several prior stock market related studies. In Hong and Stein (1999), trend-chasing investors cause prices to eventually overreact, even if prices initially underreact to news about fundamentals. Models such as those in De Long, Shleifer, Summers, and Waldmann (1990) and Cutler, Poterba, and Summers (1990) show how positive feedback from trend-chasing investors can push prices further and further away from fundamental value, resulting in bubbles and adding volatility to markets. Daniel, Hirshleifer, and Subrahmanyam (1998) show how overconfidence about private information and self- attribution bias can lead to short-run overreaction and momentum. As public information about fundamentals comes out, there is eventually a long-run reversal in asset prices.

Unlike the stock market, which has regular news about earnings and cash information about housing fundamentals is less straightforward. As a result, price momentum and mispricing appear to last much longer in the housing market. Single- family housing market sentiment is less likely to correct as quickly as stock market sentiment because real estate markets have the following traits: (1) illiquidity, (2) high transaction costs, (3) a high share of non-institutional investors, (4) no direct method to establish short positions (Ling, Naranjo, and Scheick (2013a)), (5) significant information asymmetry (e.g., Garmaise and Moskowitz (2004) and Levitt and Syverson (2008)), and (6) an incomplete market lacking liquid derivatives (Case, Shiller, and Weiss (1993)).

Thus, the main elements to support arbitrage trade against housing mispricing are largely absent in single-family housing markets. In regards to housing markets, Abraham and Hendershott (1996) argue that \the larger bubbles grow, the more likely they are to burst." They focus on the tendency for bubbles to burst and for prices to revert back toward fundamentals. Although I take a very different approach to measuring mis- pricing, my results are consistent with their's; the more extreme mispricing becomes, the more likely a correction will occur. Capozza, Hendershott, and Mack (2004) examine how housing momentum can cause prices to come overshoot equilibrium, and also calibrate serial correlation and mean reversion coefficients for housing price dynamics which my results are similar to.

Despite the housing market's importance to the overall economy, it has failed most tests of semi-strong form market efficiency. In the 1980s, several studies tested whether the housing market was efficient (see Maier and Herath (2009) for a survey). Case and Shiller (1989) was the first multi-city study to argue that the single-family housing market was not semi-strong form efficient. Although research has offered evidence of mispricing, few attempts have been made to quantify housing sentiment. In order to quantify housing sentiment, my paper adopts the methodology of Baker and Wurgler (2006, 2007). I use principle components analysis (PCA) to compile a set of variables designed to capture housing market sentiment into housing market sentiment indices for several cities.

In comparison with Baker and Wurgler's stock sentiment index, the housing sentiment index has an advantage in that data is available to construct indices for a cross-section of several cities, measuring sentiment at the city level. Prior research documents significant differences in home appreciation rates and home price variance across cities (e.g., Gyourko and Voith (1992)). In support of these findings, I find significant differences in housing sentiment across cities. The cross-sectional variation that I find in sentiment is useful for disentangling the influence of home price momentum and sentiment corrections on home price dynamics.

My study contributes to a growing literature concerning housing-related behavioral finance (Mayer and Sinai (2009) provide an overview). In addition to self-enhancing transmission bias, overconfidence, and self-attribution bias, several other underlying psychological traits may also be relevant to the housing market. Case and Shiller (1988) provide survey-based evidence of overextrapolation bias in the housing market. Barberis (2012) suggests that overextrapolation can help explain the housing-related financial crisis of the late 2000s. Goetzmann, Peng, and Yen (2012) also propose that over extrapolation, as a result of simplistic econometric models, contributed significantly to inflated home prices in the early and mid-2000s. Genesove and Mayer (2001) and Engelhardt (2003) show evidence of loss-aversion in the housing market. Korniotis and Kumar (2011) find that behavioral biases can explain suboptimal local risk-sharing. Choi, Hong, and Scheinkman (2013) find that homeowners often have mistaken expectations of how home improvement projects will increase the value of home, partially due to over extrapolating a trend of rising home prices.

Recently, Chauvet, Gabriel, and Lutz (2013) develop a measure of investor fear in the residential market based on Google searches. However, compared to the residential market, more attention has been given to developing quantitative measures of investor sentiment for commercial real estate and real estate investment trusts (RE- ITs). Hendershott and MacGregor (2005) find that when net operating income (NOI) grows above trend, property sale prices also grow, even though trend deviations in commercial property rents negatively predict future rents. Clayton, Ling, and Naranjo (2009) examine investor sentiment in commercial real estate, focusing on a model of sentiment based on error-corrections in capitalization rates. Lin, Rahman, and Yung (2009) demonstrate that investor stock sentiment has incremental explanatory power on REIT returns, after including conventional control variables. A spillover between stock market sentiment and REIT returns is also demonstrated through the increased correlation between REITs and stock sentiment following the inclusion of some REITs in stock indices (Ambrose, Lee, and Peek (2007)).

3. Home Price Growth as a Function of Momentum and Housing Sentiment Correction

My central hypothesis is that trend-chasing behavior in the housing market can push prices significantly away from fundamental value because fundamental value is difficult to discern; as sentiment increases in magnitude its impact on prices becomes more recognizable, hence reducing and eventually correcting the trend-chasing behavior. A simple way to capture this idea is to specify growth in home prices as a linear function of price momentum and sentiment mean reversion:

$$g_{t+1} = \gamma(\mathbf{f}_{t+1}) + \rho g_t - \phi HSENT_t + \epsilon_{t+1}, \quad 0 < \rho, \quad 0 < \phi \tag{1}$$

In Equation 1 gt+1 is the rate of real home price growth during period t + 1. (ft+1) is the growth in fundamental value function; its input is ft, a vector of fundamental supply and demand variables. HSENTt is the housing sentiment level reflected in prices in period t, and _t is an unexplained random mean zero shock to the home price growth rate. The positive growth autocorrelation constant, ρ, captures housing momentum.

While there may be other phenomenon that contribute to housing momentum, prior studies give evidence of a strong link between momentum and trend-chasing (e.g. Shiller (1990), and Piazzesi and Schneider (2009)). Even if a trend is initiated by a change in fundamentals, trend-chasing is likely to follow. Abraham and Hendershott (1996) write, "The lagged appreciation rate is an obvious bubble builder; once appreciation accelerates, because of, say, stronger fundamentals, the lagged variable magnifies the increase." Besides the survey evidence of trend-chasing, prior studies have also concluded the housing market also lends itself to the type of psychological biases that can generate trend-chasing such as over-extrapulation (e.g. Case and Shiller (1988), Barberis (2012), and Goetzmann, Peng, and Yen (2012)) and herding (Baddeley (2005), Baddeley (2011)).

In equation 1, φ is the sentiment mean reversion constant. The entire sentiment mean reversion term, φHSENTt, captures the idea that the magnitude of sentiment-based mispricing determines how large the sentiment correction forces will be on housing dynamics. Low levels of sentiment go unrecognized by most investors, and thus have only a weak effect on price dynamics. Extreme levels of sentiment are recognized by most investors, and affect price dynamics more significantly.

This specification is similar to that of Abraham and Hendershott (1996) who use fundamentals plus an error term to explain equilibrium home price levels in cities. Their error term is comprised of an autocorrelation term, and a second term which mean reverts based on the differential between equilibrium prices and actual prices. Their mean reversion term caries similar intuition as my HSENT mean reversion term. My approach differs in that I capture a proxy of mispricing without first estimating a dollar amount for fundamental value.

I define HSENT--the impact of housing sentiment on home prices--as the standardized divergence between home prices and fundamental value[1]. Hence if prices grow more (less) than fundamental value does, this is an increase (decrease) in HSENT. HSENT is the standardized percentage of overpricing or underpricing:

$$HSENT_t \equiv \frac{P_t/V_t - \mu}{\sigma}, \quad \mu = 1, \tag{2}$$

[1]To make the model parameters independent from the dollar amount of home price levels, which varies between cities, I will focus on sentiment in the form of the ratio between prices and fundamental value.

where Pt is the real home price in period t, Vt is the real fundamental value in period t, μ is the long-run average ratio between prices and fundamental value, which I assume to be 1, and σ is the standard deviation in the price-to-value ratio. The main obstacle to calibrating the specification in Equation 1 is that fundamental value is difficult to measure directly. But with a good proxy for HSENT, this specification is testable. A successful proxy of sentiment-based mispricing in this specification must: (1) be able to predict risk and return dynamics inconsistent with risk-averse rational expectations, and (2) exert a mean reversion force on home prices.

An assumption underlying my hypothesis is that most housing market participants do not know the true form of the component of price growth justified by fundamentals, (ft). Even for the econometrician with data on housing fundamentals, it is not a straightforward task to determine how changes in fundamentals translate to changes in fundamental value. Even if one can determine exactly how fundamental variables (e.g. income, population, or construction costs) explain prices in a regression context, this does not necessarily mean that the portion of home prices explained by fundamental variables can be interpreted as representing fundamental value. Shiller (1990) and others provide evidence that investors overextrapolate and overshoot the impact of changes in fundamentals on fundamental value's dollar amount, which is consistent with the large swings in home prices observed in many cities. Such biases in investors' expectation will end up being captured in inflated magnitudes of the coefficients on the fundamental variables used to explain home prices.

The dollar amount for fundamental value is, by definition, orthogonal to biases such as over extrapolation, but the portion of home prices explained by fundamental variables on prices is not. Over extrapolation, over optimism and other biases may be ignited by changes in fundamentals, thus making it difficult for the econometrician to know if fundamental value is actually taking such large swings, or if overshooting and mispricing are being imbedded into the portion of home prices explained by fundamental variables. Nevertheless, it is not essential to my specification that the function transforming fundamental variables into the growth rate of fundamental value is unknown; it just keeps the specification consistent with the idea that trend-chasing is more likely when fundamental value is difficult to estimate.

The two following Propositions organize the idea that when investors chase visible past returns, then the return momentum can cause small amounts mispricing to become more extreme.

Proposition 3.1. On average, a housing market with growing prices (gt > 0) and positive sentiment (HSENTt > 0) will experience continued increases in prices and sentiment until:

$$\phi HSENT_t > \rho g_t, \quad 0 < \rho, \quad 0 < \phi. \tag{3}$$

Proposition 3.2. On average, a housing market with falling prices (gt < 0) and negative sentiment (HSENTt < 0) will experience continued decreases in prices and sentiment until:

$$\phi HSENT_t < \rho g_t, \quad 0 < \rho, \quad 0 < \phi, \tag{4}$$

To more clearly portray the tension between return momentum that can move prices away from fundamental value, and the increasing magnitude of sentiment-based mispricing, I substitute the definition of the price impact of sentiment (Equation 2) into the home price growth specification (Equation 1).

$$
\begin{aligned}
g_{t+1} &= \gamma(\mathbf{f}_{t+1}) + \rho g_t - \phi HSENT_t \\
&= \gamma(\mathbf{f}_{t+1}) + \rho g_t - \phi\left(\frac{P_t/V_t - 1}{\sigma}\right) \\
&= \gamma(\mathbf{f}_{t+1}) + \rho g_t - \phi\left(\frac{P_{t-1}(1+g_t)/V_{t-1}(1+\gamma(\mathbf{f}_t)) - 1}{\sigma}\right).
\end{aligned}
\tag{5}
$$

Because the home price growth is part of both the trend-chasing term and the sentiment mean reversion term, the overall effect of price growth on subsequent price growth depends on the relative sizes of price momentum and sentiment-based mispricing. The cumulative effect of multiple periods of trend-chasing is to push the price-to-value ratio significantly away from 1. However as the price-to-value ratio ratio moves away from 1, the mispricing becomes more noticeable, and the sentiment mean reversion force on price dynamics becomes stronger. This captures the idea that larger magnitudes of sentiment are more likely to be recognized and thus lead to larger corrective forces on prices.

The growth in fundamental value cannot be directly backed out from observable home price growth because: (1) the noise of the unexplained component _t, and (2) housing sentiment is also not directly observable to most investors since it is quite difficult for most homebuyers to translate information about aggregate population, income, employment, housing construction, and many other fundamentals into a specific dollar value for homes in an area. The basic intuition is that when housing sentiment is very high (low), more investors sense that the market is overpriced (underpriced); momentum based buying (selling) slows down, eventually stops, then prices begin to correct.

One important feature of the home price growth specification is that even if initial price changes are attributable to fundamentals, subsequent growth from trend-chasing investors can generate mispricing. This feature is similar to the Hong and Stein (1999) model. The second main feature of my home price growth specification is that sentiment will on average continue to become more extreme, until sentiment is extreme enough relative to recent price growth for a reversal in the direction of price growth to occur.

4. Housing Sentiment Index Factors

Both homebuyers and researchers face similar problems in estimating a specific dollar amount for fundamental value in housing. When prices are regressed on variables considered fundamentals, the resulting coefficient estimates capture both the rational and biased components of how price changes relate to changes in fundamental variables. Investor sentiment is not only potentially captured by the residuals of such a regression, but the bias in investor expectations may also be confounded within the coefficients on fundamentals.

Because the component of prices explained by fundamental variables cannot be straightforwardly interpreted as fundamental value in the presence of over-extrapolation and other forms of investor sentiment, I take an alternative approach to measure housing sentiment's impact on home prices. To operationalize my home price dynamics specification in Equation 1, I use principle component analysis (PCA) to construct a novel index measure of single-family housing sentiment, hence avoiding the complications with directly calculating a specific dollar amount for fundamental value. The resulting index, called HSENT, is based on the following individual factors[2]: the number

[2] The individual variables used in PCA are often called factors, not to be confused with traditional asset pricing model factors.

of home sales per capita (SALES), home price appreciation relative to growth rates in employment (HPIg-EMPg), price-to-income ratios (PRICE/INC), loan-to-value ratios (LTV), the spread between mortgage and Treasury interest rates (EIR-TSRY), and the rent-to-price ratio (RENT/PRICE). The basic rationale is to design sentiment factors that are fairly stationary and for which deviations from the mean capture deviations from long run equilibrium.

Based on prior research, these variables are designed to proxy for housing sentiment. Previous studies and news media sometimes use "sentiment" and "confidence" to reference survey-based measures of investors' outlook (e.g., the NAHB-Wells Fargo Housing Market Index and the Knight Frank and Markit's House Price Sentiment Index). I use sentiment in a stricter sense to refer specifically to the bias in expectations of housing returns (first and higher moments) held by housing market participants.[3] In this sense sentiment proxies have important differences from variables that proxy for fundamental value. Sentiment proxies provide information about the divergence between fundamental value and price, but not necessarily direct information about the absolute level of the fundamental value. My sentiment measures are standardized, hence they do not directly give information on the dollar level of fundamental value. Next, I address the rationale for the direction in which each variable is a proxy for sentiment.

The SALES factor is the number of single-family existing home sales in an MSA divided by the MSA's population. A high (low) number of per capita sales can indicate high (low) housing sentiment if homeowners are reluctant to sell their home when the price is relatively low. Engelhardt (2003) suggests that homeowners may be reluctant to realize losses. Previous research suggests that housing turnover will proxy for investor bias when investors are subject to nominal-loss aversion (Genesove and Mayer (2001)), or use anchoring heuristics based on home price reference points (Leung and Tsang
(2011)).

The local employment rate, population growth, and income growth are widely considered the main macroeconomic and demographic drivers of local home prices (e.g. Reichert (1990)). In both the US and the UK housing markets, Meen (2002) finds that population and income variables have co-integration properties with home prices and predictive power on future home prices. Home price appreciation in comparison to the employment rate, population growth, and income growth are common ways to evaluate where home prices are in relation to fundamental values (e.g., Wheaton and Nechayev (2008)). These prior studies suggest sentiment proxies based on the employment rate, population growth, and income growth.

The HPIg-EMPg factor is the percent change in home prices minus the percent change in the employment rate. It stands to reason that it is not sustainable for home prices and the employment rate to move in opposite directions in a city, all else equal. I expect a positive (negative) differential to indicate positive (negative) sentiment. For any periods in which the employment rate grew but the labor force shrunk at a greater rate, I instead use the percent change in home prices minus the percent change in the labor force. I make this adjustment because unemployed individuals who stop looking for work are no longer considered part of the labor force; hence, employment rates could actually increase because many people stop looking for work.

The PRICE/INC factor is the ratio of home prices to per-capita income. Because this ratio can have a different long-run level across cities, I compare a city's price-to- income ratio with its own long-run average. I expect a high (low) ratio to indicate positive (negative) sentiment. Traditionally, home prices and income are regarded as cointegrated (e.g., Holly and Jones (1997) and Malpezzi

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[3] Soo (2013) recently develops a measure of housing sentiment in this stricter sense based on the qualitative tone in local newspapers.

(1999)), making their ratio stationary. Again, this is convenient since divergences away from the long run mean of the ratio can be understood as departures from a long run statistical equilibrium. Following the dramatic rise and fall in home prices across many U.S. markets in over the 1987-1991 period, many real estate practitioners believed that, \using local income it's possible to calculate an equilibrium home price that shows when-and by how much-a local home market is overpriced" (Winzer (1992)). Shiller (2005) also uses the price- to-income ratio as a measure for how prices are diverging from fundamental value.

The LTV factor is the ratio of the initial loan balance to the purchase price. Goetzmann, Peng, and Yen (2012) note that "past home price increases are associated with more subprime applications, higher loan to income ratios and lower loan to value ratios of applications for both prime and subprime mortgages." Taking this argument from the stand point of home price declines implies that high LTVs at the time of sale may result from recent home price decreases and lesser willingness on behalf of borrowers to invest equity in a home purchase. My empirical results confirm the intuition of Goetzmann et al.; the component of LTV incremental to other sentiment factors is 15 inversely related to housing sentiment and likely captures a reluctance on the part of homebuyers to invest equity.

The EIR-TSRY factor is the effective mortgage interest rate[4] minus yield to maturity on the 10-year Treasury note yield to maturity[5]. Housing sentiment can be reflected in this interest rate spread in on both the credit demand and credit supply side. Home purchases driven by high sentiment can increase the demand for mort- gages and drive the spread up. Ambrose, LaCour-Little, and Sanders (2004) find that non-conforming mortgages, which became a popular financing choice among home purchasers during the most recent housing bubble, have spreads about 5.5% higher than conforming home loans. On the supply side, high sentiment among mortgage originators can increase the spread as lenders issue to higher risk borrowers. Based on a loan-level study, Demyanyk and Van Hemert (2011) conclude that \ the rise and fall of the subprime mortgage market follows a classic lending boom-bust scenario, in which unsustainable growth leads to the collapse of the market." Mian and Sufi (2009) also document that increased credit to riskier borrowers was associated with initial increases in home prices followed by later increases in defaults and subsequent decreases in home prices.

The RENT/PRICE factor is the annual owner equivalent rent divided by home price. Brunnermeier and Julliard (2008) recognize the price-to-rent ratio to contain both a rational component and a mispricing component. The inverse of this ratio functions as a residential capitalization rate. Capitalization rates have been used in several studies as measures of investor sentiment in the commercial real estate market (e.g. Clayton, Ling, and Naranjo (2009), Chervachidze, Costello, and Wheaton (2009)). In these studies low (high) capitalization rates are associated with high (low) sentiment. This logic carries over to the residential market; a low (high) rent-to-price ratio re that home prices are high (low) relative to their income generating, or rent saving capabilities.

While each individual factor may not be a perfect housing sentiment proxy, it is their joint commonality that I exploit in developing a housing sentiment proxy. Using various combinations of the individual sentiment factors, I am able to capture about 40% of the sample variance in the first principal component, which indicates that a source of common variation is well identified within the set of variables I use. In comparison, for the stock sentiment index of Baker and Wurgler (2006), they

[4] The effective interest rate is the annual percentage rate on conventional mortgages based on the initial financing the borrower actually receives, which is the loan amount minus initial fees and charges.

[5] 5I use the 10-year note because it has a duration similar to that of the average mortgage duration and is highly liquid.

state, \The first principal component explains 49% of the sample variance, so we conclude that one factor captures much of the common variation."

5. Calibration Results of the Home Price Growth Model

The main application of the sentiment indices developed in this study is to calibrate the home price growth specification. Using the housing sentiment indices, I estimate the autocorrelation and sentiment mean reversion coefficients from Equation 1 with ordinary least squares (OLS) as follows:

$$g_{i,t+1} = \bar{\gamma} + \rho g_{it} - \phi HSENT_{it} + \epsilon_{i,t+1}, \tag{6}$$

where subscript i indicates MSA and subscript t is the year. The results, displayed in Table 5, show strong autocorrelation between 0.7 and 0.9 (Beracha and Skiba (2011) also find significant price momentum across a wide sample of US housing markets).

Table 5: **Estimated home price growth model.** I use OLS to estimate $g_{t+1} = \bar{\gamma} + \rho g_t + \phi HSENT_t + \epsilon_{t+1}$, where g_t is the growth rate in real home prices from period $t-1$ to period t, and $HSENT_t$ is the housing sentiment level in period t. I estimate the autocorrelation coefficient, ρ, and the sentiment mean reversion coefficient, ϕ. The intercept $\bar{\gamma}$ is the average of $\gamma(\mathbf{f}_{t+1})$, the growth in fundamental value. The columns indicate which housing sentiment index is used. T-statistics are in parentheses, and N is the number of MSA-year observations.

	2 factor	3 factor	4 factor	5 factor	6 factor
γ	-0.0014	-0.0014	-0.0009	0.0009	0.0009
	(-1.02)	(-1.00)	(-0.54)	(0.40)	(0.26)
ρ on real g	0.7566	0.7515	0.8828	0.8898	0.8251
	(35.80)	(35.47)	(31.72)	(26.40)	(15.88)
$-\phi$ on $HSENT_t$	-0.0125	-0.0117	-0.0126	-0.0153	-0.0070
	(-9.11)	(-8.50)	(-6.93)	(-6.01)	(-2.06)
N	1005	1005	657	456	179
Adjusted R^2	0.56	0.56	0.62	0.63	0.60

The sentiment mean reversion is also strong with the coefficients between 1.1% and 1.5%. Given that the housing sentiment indices have unit standard deviation, the mean reversion coefficient indicates that a one standard deviation increase in sentiment is associated with a .07%-1.5% lower home price growth rate. The average real fundamental growth rate, which is represented by the intercept term γ, is statistically indistinguishable from zero. This makes sense given that housing assets provide a great deal of consumption utility. The calibration of the standard deviation of unexplained shocks to housing growth is captured by root of the mean square error which is 3.9%-4.5%. As an example, a calibrated specification using in range coefficient estimates takes the following form:

$$g_{t+1} = \gamma(\mathbf{f}_{t+1}) + .8g_t - .0125HSENT_t + \epsilon_{t+1}, \quad \sigma_\epsilon = .2, \quad \bar{\gamma} = 0, \tag{7}$$

where σe is the standard deviation of unexplained shocks to housing growth, and γ is the average growth in real fundamental value. The estimated model coefficients support Propositions 3.1 and 3.2. Only when sentiment is extreme does the mean reversion term overpower the trend-chasing term in the calibrated home price growth specification.

For example, with ρ = 0.8 and φ = 0.0125 we can see what happens following a 5% shock to home price growth unrelated to fundamentals. The trend-chasing term would contribute .8(5%) to subsequent growth, while the sentiment mean reversion term would induce -.0125(HSENT) = -.0125(1.05 - 1)/σ in corrective forces. Hence, on average, sentiment would actually become more positive rather than being corrected in the period subsequent to a shock if one standard deviation of HSENT, σ, is at least 1.5625% in terms of percent of fundamental value. This key result of positive feedback between home prices and sentiment in the short-run is corroborated in the findings of Ling, Ooi, and Le (2013b).

The question of just how much mispricing (as a percentage or dollar amount) is rep- resented by the housing sentiment measures (which are in abstract standardized units) must still be answered in order to numerically evaluate the inequalities in Propositions 3.1 and 3.2. To calibrate a percentage mispricing value for one unit of HSENT, σ, I take the average real home price level when the sentiment proxies are nearly zero (-0.25 < HSENTt < 0.25) in each MSA. In other words, I take the price levels when HSENT is near the zero guide lines in Figure 13 below as an estimate for fundamental value level. Since the estimate of the average fundamental real growth rate is zero, the average fundamental price level in real terms is fairly stationary. I then calculate the standard deviation of real prices from this zero sentiment price level for each MSA.

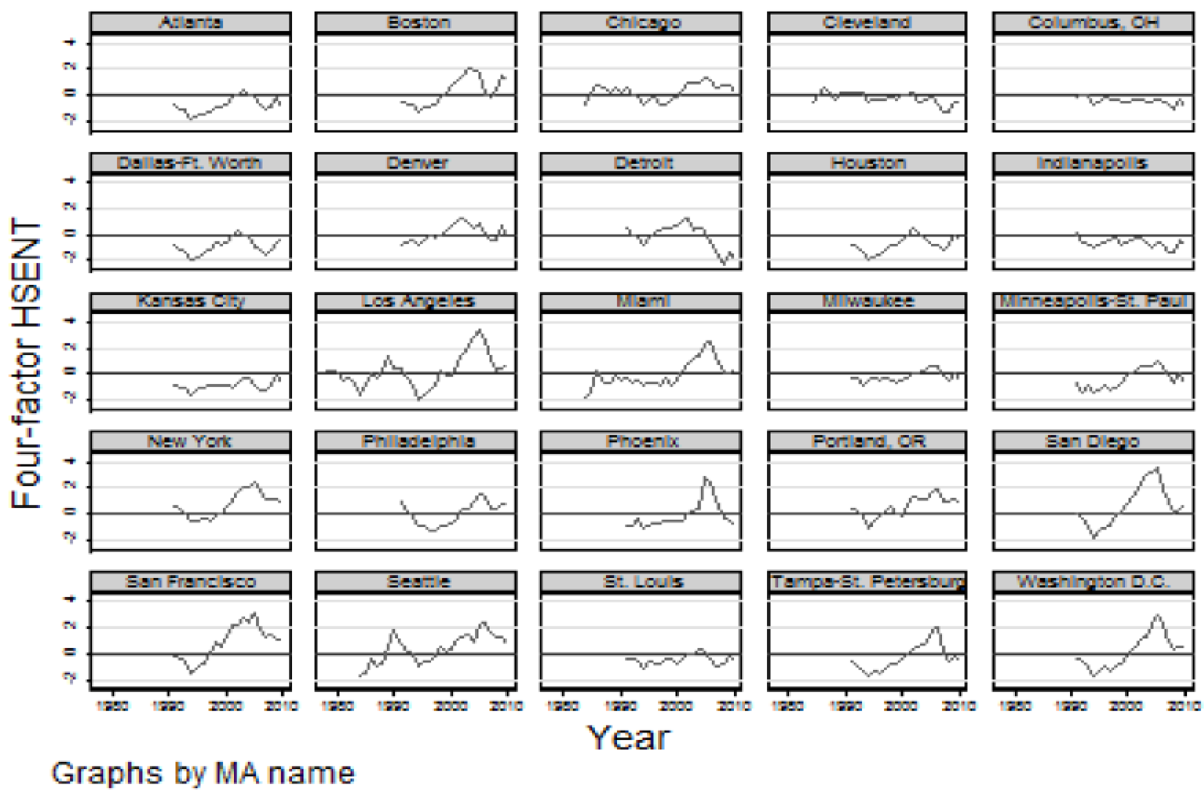

Figure 13: **Four–factor housing sentiment index over time by MSA.** The four–factor housing sentiment (HSENT) index is shown for the 25 MSAs with at least 20 years of data. A horizontal guide line at the zero housing sentiment level is provided. The four–factor housing sentiment (HSENT) index includes the price–to–income (PRICE/INC) ratio, loan-to-value ratios (LTV), the spread between mortgage and Treasury interest rates (EIR–TSRY), and the difference between home price employment growth (HPIg–EMPg) factors.

Across all MSAs and indices, the average deviation from the zero sentiment price level is approximately 20% in the 1978-2010 sample period. Considering that average growth in real home prices is not statistically different from zero, a value of 20% for σ is a fairly large amount of mispricing, certainly enough for Propositions 3.1 and 3.2 to hold. The large amount of mispricing required relative to recent growth, before fundamental based investment finally dominates price momentum may help explain why the ability to predict the timing or location of reversals in housing bubbles is weak (Mayer (2011)).

6. Conclusion

Unlike stocks, bonds, and commercial properties, single-family homes often do not generate cash flows that can be used in typical cash ow discount valuation methods. In addition homebuyers may not be able to easily translate macroeconomic fundamental variables into a dollar valuation. Although housing has unique valuation challenges, past returns are easily observable; I therefore hypothesize that housing returns reflect investments based on chasing past returns, i.e. momentum, more so than value investing. Shiller (1990) and Piazzesi and Schneider (2009) provide survey evidence consistent with overextrapolation-based trend-chasing.

In my specification, investor sentiment--which I define as bias in expectations of housing returns and risks--becomes reflected in home prices as a result of trend-chasing. This momentum slows when the divergence between price and fundamental value be- comes large enough to be more recognizable. Only as sentiment becomes extreme will a corrective reversal in the direction of home price growth occur.

Using principle component analysis, I combine individual proxies of housing sentiment into indices. The ratio of home prices to per-capita personal income, the spread between effective mortgage interest rates and Treasury-note rates, the difference in growth rates of home prices and employment, and the number of home sales per capita are positive proxies of housing sentiment. Initial loan-to-value ratios, and rent-to-price ratios are negative proxies of sentiment.

I specify home price growth as a linear function of both previous home price growth and sentiment mean reversion. Estimates of home price growth autocorrelation are between 0.7 and 0.9. A one standard deviation increase in sentiment is associated with between -.07% and -1.5% real home price growth, and real home price growth is only 0.5% on average, making the magnitude of sentiment mean reversion economically significant. These estimates confirm that sentiment must be extreme relative to past home price growth before it can eclipse the effect of home price momentum. Additional predictions that momentum effects will be the strongest in appreciating markets due to shorting constraints are also confirmed.

In Midwestern underpriced markets with low or negative price growth, prices tend to remain depressed for long periods. This finding suggests that small positive returns in underpriced markets are not enough to attract momentum buyers, but the underpricing is not severe enough to attract value investors either. Hence, these markets stagnate. Overall, my results are consistent with investors being drawn to high past returns and investing based on fundamental value only when the difference between prices and fundamental value becomes more extreme, and hence recognizable.

To evaluate the possibility that the HSENT measures are somehow capturing rationally priced housing risk instead of bias in expectations, I measure the relationship between HSENT and subsequent realized housing returns and risks. HSENT has a strong inverse relationship with realized housing returns over the subsequent decade. Over the same period HSENT has a strong positive relationship with home foreclosure rates, housing return volatility, covariance between housing returns and stock market excess returns, and covariance between housing returns and GDP growth. This is consistent with the HSENT measures capturing bias in investor expectations rather than some form of housing insurance.

Overall, the results suggest that the large swings in prices in many U.S. cities, especially on the East and West coast, reflect overextrapolation biases in investor expectations that are eventually corrected when the mispricing becomes obvious enough. The development of the HSENT housing sentiment indices allows for further work on the underlying sources and causes of housing sentiment. Researchers may also further explore the role of sentiment in systematic risk, and the nature of any possible spillover effects between mispricing in the housing markets and other financial markets.

References

Jesse M. Abraham and Patric H. Hendershott. Bubbles in metropolitan housing mar-kets. Journal of Housing Research, 7(2):191-207, 1996.

Brent W. Ambrose, Michael LaCour-Little, and Anthony B. Sanders. The effect of conforming loan status on mortgage yield spreads: A loan level analysis. Real Estate Economics, 32(4):541-569, December 2004.

Brent W. Ambrose, Dong Wook Lee, and Joe Peek. Comovement after joining an index: Spillovers of nonfundamental effects. Real Estate Economics, 35(1):57-90, Spring 2007.

Brent W. Ambrose, Piet Eichholtz, and Thies Lindenthal. House prices and fundamen-tals: 355 years of evidence. Journal of Money, Credit and Banking, 45(2-3):477-491, 2013.

Michelle Baddeley. Housing bubbles, herds and frenzies: Evidence from British housing markets. Working paper, University of Cambridge Centre for Economic and Public Policy NO. 02/05, May 2005.

Michelle Baddeley. Social influence and household decision-making: A behavioural analysis of household demand. Working paper, CWPE 1120, January 2011.

Malcolm Baker and Jeffrey Wurgler. Investor sentiment and the cross-section of stock returns. Journal of Finance, 61(4):1645-1680, August 2006.

Malcolm Baker and Jeffrey Wurgler. Investor sentiment in the stock market. Journal of Economic Perspectives, 21(2):129-151, Spring 2007.

Nicholas C. Barberis. Psychology and the financial crisis of 2007-2008. In Michael Haliassos, editor, Financial Innovation: Too Much or Too Little? MIT Press, 2012. Forthcoming Fall 2012.

Eli Beracha and Hilla Skiba. Momentum in residential real estate. Journal of Real Estate Finance and Economics, 43(3):299-320, October 2011.

Markus K. Brunnermeier and Christian Julliard. Money illusion and housing frenzies. Review of Financial Studies, 21(1):135-180, 2008.

Craig Burnside, Martin Eichenbaum, and Sergio Rebelo. Understanding booms and busts in housing markets. Working Paper, NBER 16734, March 2012.

Dennis R. Capozza, Patric H. Hendershott, and Charlotte Mack. An anatomy of price dynamics in illiquid markets: Analysis and evidence from local housing markets. Real Estate Economics, 32(1):1-32, 2004.

Karl E. Case and Robert J. Shiller. The behavior of home buyers in boom and post- boom markets. New England Economic Review, (November):29-46, 1988.

Karl E. Case and Robert J. Shiller. The efficiency of the market for single-family homes. American Economic Review, 79(1):125-37, March 1989.

Karl E. Case and Robert J. Shiller. Is there a bubble in the housing market? Brookings Papers on Economic Activity, 34(2):299-362, 2003.

Karl E. Case, Robert J. Shiller, and Allan N. Weiss. Index- based futures and options markets in real estate. Journal of Portfolio Management, 19(2):83-92, Winter 1993. 34

Marcelle Chauvet, Stuart A. Gabriel, and Chandler Lutz. Fear and loathing in the housing market: Evidence from search query data. Working paper, UCLA, July 2013.

Serguei Chervachidze, James Costello, and William C Wheaton. The secular and cyclic determinants of capitalization rates: The role of property fundamentals, macroeco- nomic factors, and structural changes. The Journal of Portfolio Management, 35(5): 50-69, 2009.

Hyun-Soo Choi, Harrison G. Hong, and Jose A. Scheinkman. Speculating on home improvements. Forthcoming, Journal of Financial Economics, June 2013.

Jim Clayton, David C. Ling, and Andy Naranjo. Commercial real estate valuation: Fundamentals versus investor sentiment. Journal of Real Estate Finance and Eco-nomics, 38(1):5-37, January 2009.

Major Coleman IV, Michael LaCour-Little, and Kerry D. Vandell. Subprime lending and the housing bubble: Tail wags dog? Journal of Housing Economics, 17(4): 272-290, December 2008.

David M. Cutler, James M. Poterba, and Lawrence H. Summers. Speculative dynamics and the role of feedback traders. American Economic Review, 80(2):63-68, May 1990.

Kent Daniel, David Hirshleifer, and Avanidhar Subrahmanyam. Investor psychology and security market under- and overreactions. Journal of Finance, 53(6):1839-1885, December 1998.

J. Bradford De Long, Andrei Shleifer, Lawrence H. Summers, and Robert J.Waldmann. Noise trader risk in financial markets. Journal of Political Economy, 98(4):703-738, 1990.

Yuliya Demyanyk and Otto Van Hemert. Understanding the subprime mortgage crisis. Review of Financial Studies, 24(6):1848-1880, June 2011. 35

Gary Engelhardt. Nominal loss aversion, housing equity constraints, and household mobility: evidence from the United States. Journal of Urban Economics, 53(1): 171-195, January 2003.

Mark J. Garmaise and Tobias J. Moskowitz. Confronting information asymmetries: Evidence from real estate markets. Review of Financial Studies, 17(2):405-437, February 2004.

David Genesove and Christopher Mayer. Loss aversion and seller behavior: Evidence from the housing market. The Quarterly Journal of Economics, 116(4):1233-1260, 2001.

William Goetzmann, Liang Peng, and Jacqueline Yen. The subprime crisis and house price appreciation. Journal of Real Estate Finance and Economics, 44:36-66, June 2012.

Joseph Gyourko and Richard Voith. Local market and national components in house price appreciation. Journal of Urban Economics, 32(1):52-69, July 1992.

Joseph Gyourko, Christopher Mayer, and Todd Sinai. Dispersion in house price and income growth across markets: Facts and theories. In Agglomeration Economics, NBER Chapters, pages 67-104. National Bureau of Economic Research, 2010.

Bing Han and David A. Hirshleifer. Self-enhancing transmission bias and active in- vesting. Working Paper, University of California, Irvine - Paul Merage School of Business, April 2012.

Lu Han. Understanding the puzzling risk-return relationship for housing. Review of Financial Studies, 26(4):877-928, 2013.

Patric H. Hendershott and Bryan D. MacGregor. Investor rationality: An analysis of NCREIF commercial property data. Journal of Real Estate Research, 27(4):445-475, 2005.

Charles Himmelberg, Christopher Mayer, and Todd Sinai. Assessing high house prices: Bubbles, fundamentals and misperceptions. Journal of Economic Perspectives, 19 (4):67-92, 2005.

David Hirshleifer and Jianfeng Yu. Asset pricing in production economies with ex-trapolative expectations. Working Paper, UC Irvine Merage School of Business, November 2013.

Sean Holly and Natasha Jones. House prices since the 1940s: Cointegration, demogra-phy and asymmetries. Economic Modelling, 14(4):549-565, October 1997.

Harrison Hong and Jeremy C. Stein. A unified theory of underreaction, momentum trading, and overreaction in asset markets. Journal of Finance, 54(6):2143-2184, December 1999.

Benjamin J. Keys, Tanmoy Mukherjee, Amit Seru, and Vikrant Vig. Did securitiza-tion lead to lax screening? Evidence from subprime loans. Quarterly Journal of Economics, 125(1):307-362, February 2010.

George M. Korniotis and Alok Kumar. Do behavioral biases adversely affect the macro-economy? Review of Financial Studies, 24(5):1513-1559, May 2011.

Rose N Lai and Robert A Van Order. Momentum and house price growth in the united states: anatomy of a bubble. Real Estate Economics, 38(4):753-773, 2010.

Edward E. Leamer. Housing is the business cycle. Technical report, Housing, Housing Finance and Monetary Policy, A Symposium, August 2007. Federal Reserve of Kansas City.

Tin Cheuk Leung and Kwok Ping Tsang. Anchoring and loss aversion in the housing market: Implications on price dynamics. Working Paper, Hong Kong Institute for Monetary Research No. 28/2011, September 2011.

Steven D. Levitt and Chad Syverson. Market distortions when agents are better in-formed: The value of information in real estate transactions. Review of Economics and Statistics, 90(4):599-611, November 2008.

Crystal Lin, Hamid Rahman, and Kenneth Yung. Investor sentiment and REIT returns. Journal of Real Estate Finance and Economics, 39:450-471, November 2009.

David Ling, Andy Naranjo, and Benjamin Scheick. Investor sentiment, limits to arbi-trage, and private market returns. Forthcoming, Real Estate Economics, January 2013a.

David C. Ling, Joseph T.L. Ooi, and Thao T.T. Le. Explaining house price dynam-ics: Isolating the role of non-fundamentals. Working paper, University of Florida, November 2013b.

Gunther Maier and Shanaka Herath. Real estate market efficiency: A survey of liter-ature. Technical report, Institute for the Environment and Regional Development, Department of Socioeconomics, Vienna University of Economics and Business, 2009.

Stephen Malpezzi. A simple error correction model of house prices. Journal of Housing Economics, 8(1):27-62, March 1999.

Christopher J. Mayer. Housing bubbles: A survey. Annual Review of Economics, 3(1): 559-577, September 2011.

Christopher J. Mayer and Todd Sinai. U.S. house price dynamics and behavioral fi-nance. In Christopher L. Foote, Lorenz Goette, and Stephan Meier, editors, Behav-ioral Economics and the Housing Market, chapter 5, pages 261-295. Federal Reserve Bank of Boston, 2009.

DeForest McDu_. Home price risk, local market shocks, and index hedging. Journal of Real Estate Finance and Economics, 45:212-237, June 2012.

Geff Meen. The time-series behavior of house prices: A transatlantic divide? Journal of Housing Economics, 11(1):1-23, 2002.

Atif Mian and Amir Sufi. The consequences of mortgage credit expansion: Evidence from the U.S. mortgage default crisis. Quarterly Journal of Economics, 124(4): 1449-1496, 2009.

Monika Piazzesi and Martin Schneider. Momentum traders in the housing market: Survey evidence and a search model. American Economic Review, 99(2):406-411, May 2009.

Alan K. Reichert. The impact of interest rates, income, and employment upon regional housing prices. Journal of Real Estate Finance and Economics, 3:373-391, 1990.

Breck L. Robinson and Richard M. Todd. Role of non-owner-occupied homes in the current housing and foreclosure cycle. Working paper, Federal Reserve Bank of Richmond WP10-11, November 2010.

Robert J Shiller. Speculative prices and popular models. Journal of Economic Per-spectives, 4(2):55-65, 1990.

Robert J. Shiller. Irrational Exuberance. Princeton University Press, Princeton, New Jersey, second edition, 2005.

Cindy K. Soo. Quantifying animal spirits: News media and sentiment in the housing market. Working paper, University of Pennsylvania, January 2013.

John B. Taylor. The financial crisis and the policy responses: An empirical analysis of what went wrong. Working Paper NBER 14631, 2009.

William C. Wheaton and Gleb Nechayev. The 1998-2005 housing "bubble" and the current "correction": What's different this time? Journal of Real Estate Research, 30(1):1-26, January 2008.

Ingo Winzer. The dynamics of overpriced markets. Mortgage Banking, 53(1):16-22, October 1992.

Change management and culture

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Keywords
Culture, Change Management, Diversity

Abstract

This paper explores alleviating cultural diversity changes in the workplace by providing managerial support to employers. The 21st century workforce often entails dealing with employees who have different attitudes toward time, status and roles, relationships, responsibility, decision-making, and technology. Due to these challenges management must effectively manage diversity, managers and supervisors must be aware of the values, motivations, communication styles, attitudes, and needs of their employees. Research shows employees in the 21st century may consist of employees of different age, sex, racial composition, and national origin; the challenge to managers and supervisors is magnified. With people of different cultural backgrounds and ethnicity's working together the differences in language and culture can make communication difficult, it can also lead to discomfort and misunderstanding. Management team must realize that diversity work requires a very substantial effort.

Effect of organizational role stress on organizational culture: an empirical evidence from service-sector

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Key Words
Role Erosion, Personal Inadequacy, Autonomy, Trust, Pro-Action.

Abstract

Service sector is dominantly the largest sector in India and to maintain the current position of Rank 11 in the World Service Sector, Organizational culture of every Indian organization plays a very critical and crucial role. It determines the Accelerated or retardate growth of the organization. Culture acts as an invisible adhesive that holds values, technology adoption, working parameters intact which are the essence of organization's existence. The main contributors towards inducing organization role stress are Job and its dimensions, social factors and intra-psychic factors. The roles in organizations most of the time defined by the expectations of role senders, which maximum times stand parallel to individual expectations, capacities and even skill sets. This leads to stress and if these problems are not resolved at right time, pace and by right individual, it starts hindering individual as well as organizational effectiveness. The objective of the study was to examine the impact of Organizational Role Stress on OCTAPACE Culture and recommend proper interventions to stake holders for reducing the organizational role stress and make better OCTAPACE Culture in the service sector.

The present study was conducted on 474 employees of organized Retail and Telecom service sectors randomly drawn using questionnaire method. The result obtained indicates that the employees were experiencing moderate level of OCTAPACE culture and component includes Openness and Risk taking, Confrontation, Pro-action, Collaboration and Experimentation. Organizational role stress were also found to be at moderate level but the dominant stressors but in certain factors like Role erosion, Personal Inadequacy, Role expectation conflict and self-role distance were found a bit high. Significant difference was also observed on few demographic variables also. It was further explored and found that there is significant negative correlation exists between OCTAPACE culture and Organizational role stress.

Change Management for the 21st Century and Beyond

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Keywords
Change management, strategy, leader-follower relationship, incidental change

Abstract

This paper discusses the best practices for initiating organizational change and evaluates the likely influences of leader-follower relationships on the change management strategy. For this purpose, this paper will provide a brief background about the concepts of organizational change management and theories that deals with leader-follower relationships, so as to develop the basis of arguments in this regard. The types of change that will be referred to in this paper will relate to premeditated, far-reaching, radical, and long-term change; it will not address the day-to-day, incidental changes that occur in organizations. In sum this paper will analyze organizational change, leader-follower relationships, and best practices for initiating change management strategies.

Knowledge Economy Vision 2030. The impact of university education on the dissemination of the knowledge economy

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Keywords
Knowledge Economy - Saudi Universities - Knowledge Society - Comprehensive Rehabilitation - Knowledge Development

Abstract

Knowledge is a major pillar of progress and the rise of nations. Thus, it is considered a source of progress, prosperity, development of the society, and a catalyst for intellectual and social mobility (Age of knowledge). The mission of improving education and learning is a priority for many countries, whether it was developing or advancing, in the view of the prevailing belief which contributes significantly to the development and the realization of their objectives and future hopes. The future vision of the educational systems requires basic skills, such as adaptation, flexibility, accommodate the rapid change in the surrounding environment (local and global), and the ability to convey ideas as accurately as possible. And the work to develop the abilities of both the teacher and the learner in the educational process of learning, and assimilation of modern technological means. The knowledge economy has become a central tool in measuring the ability of countries acquire the causes of progress and to have the necessary foundations for the success of their plans and programs for overall economic development.

Therefore, the problem of studying the challenges facing Saudi Arabia Universities in meeting the needs of society in the process of the growing knowledge development
The study aims to identify the concept of the knowledge economy as well as shed light on the importance of the role of universities in spreading the concept of the knowledge economy. Also, identify the difference between the concept of the economy based on knowledge and the concept of the knowledge economy.

The study utilized descriptive analysis in collecting data from the sample size, It consists of 355 electronic questionnaires from various faculties in Al-Qassim University in Saudi Arabia, The questionnaire was analyzed by a SPSS program, Use the Alpha-Cronbach Reliability Test for questionnaire questions.

The resulting analysis agrees with the hypothesis, there are positive impacts of university education on the dissemination of the knowledge economy, there are positive impacts of the faculty member role in spreading the concept of the knowledge economy. But, there is a negative impact on the university in supporting, encouraging innovation and supporting student projects.

Introduction

A knowledge economy is a central tool in measuring the ability of countries to progress and possess the necessary ingredients for the success of their planned and programs for a comprehensive development (Arab Knowledge Report 2009). It involves the investment of technological capabilities, industries, jobs, and new businesses which it requires qualified human resources with many special skills like the creativity and the adaptation to developments. The World Bank (2013) reported, in the collaboration with the Islamic Educational, Scientific and Cultural Organization (ISESCO), Entitling Transforming Arab economies: moving forward on the path of knowledge and innovation: The increasing of investment in the knowledge economy model will be an important requirement to meet the challenge facing all the Arab countries. Here starts the role of universities education, which it is the considered key to enter the era of knowledge and development of societies through the development of human capital. Therefore is the focus of the educational process.

The Research Problem

The economic challenge is the most serious and most important challenge because it is a factor in preserving the country's independence, preserving its respect and achieving its ambition for progress and growth. Where the principal component of value creation, productivity, and economic growth is knowledge." Hence the following questions:

1. What is the concept of the knowledge economy and what are its components and characteristics?
2. What is the difference between "knowledge economy" and "knowledge-based economy"
3. What is the role of university education in spreading the knowledge economy?
4. What is the role of higher education in the knowledge economy according *"Knowledge Economy Vision2030"?*
5. What is impact a Knowledge Economy in the Gulf Cooperation Council GCC Countries

Objectives of the study

The objective of the study is to identify the concept of the knowledge economy as well as shedding light on the importance of the role of universities in spreading the concept of the knowledge economy. Also identifying the difference between the concept of knowledge-based economy and the concept of the knowledge economy.

Research Hypotheses

The hypotheses of this research are based on the positive impact of university education on the dissemination of the knowledge economy as follows:

First, the faculty member plays a positive role in spreading the concept of knowledge economy.

Second, University infrastructure contributes to the promotion and dissemination of the knowledge economy concept.

Third, Universities play a positive role in supporting and encouraging innovative students and supporting student projects.

The methodology of the study

The study adopted the method of descriptive analysis in the collection of the required data from the sample size consisting of 355 questionnaires from different faculties in Al-Qassim University in Saudi Arabia. Data collection was based on an electronic survey for two main reasons: the importance of electronic communication as one of the most important means of communication with society in our contemporary age because of multiple benefits such as capacity, rapid deployment, and accessibility, storage capacity and low cost. The second reason relates to the nature of the study as a survey of a large number of colleges in different regions requires the adoption of means capable of covering the spread of these colleges on a large scale, especially with the difficulty of any alternative means of collecting the required data, The questionnaire was analyzed by a SPSS program, use the Alpha-Cronbach Reliability Test for questionnaire questions.

For the purpose of collecting the necessary data, a checklist was designed which included 19 items related to different aspects of the role of the educational system in the knowledge economy, these items according: the extent to which the student is aware of the economy of knowledge, the importance of the role of universities in spreading the knowledge economy (the role of a faculty member, university infrastructure and the suitability of university courses). The data was collected by the research team. The website was reviewed for 21 days. Then an average is calculated for each data. For the purpose of verifying the accuracy of the coding and recording of data by team members.

Theoretical framework

The difference between "knowledge economy" and "knowledge-based economy", The Knowledge Economy is a shift to a postindustrial economy (Kelly, 2006). A knowledge economy is one where the key asset is knowledge (Houghton, 2000). "In an agricultural economy, land agricultural is a key resource. In an industrial economy, the natural resource is a key resource, such as coal, iron ore, and labor is the main resources. So, we can say that knowledge economy is the era of big data used to drive innovation and competitive advantage.

The knowledge economy, it is the production of knowledge, research, and development, both in terms costs of the knowledge process for example : research cost, development or business management, consultation or the preparation, training of experts on the one hand, and the returns or revenue generated by this process as an economic process. (Farouk, 2005, p. 26- 34).

Knowledge Economy: economy the building mainly on the production, dissemination, use of knowledge and information. (Al Hashemi, 2007, p. 25)

While the "knowledge-based economy" refers to an advanced stage of the knowledge economy, it depends on the application of a knowledge economy in various economic and social activities

Knowledge Economy in the Gulf Cooperation Council GCC Countries

Ismail, 2004, and The World Bank Institute (WBI), 2013 identifies four key pillars of a knowledge economy index, as follows:

1- Economic Incentive

Economic Incentive based on strong economic fundamentals, it can provide all legal and political frameworks aimed at increasing productivity and growth. These policies, aim at information and communications technology (ICT) more accessible and convenient, which lead to reducing tariffs on technology products and increasing the competitiveness of SMEs.

2- Education

It is one of the basic needs of productivity and economic competitiveness. Governments need to provide skilled and creative labor for human capital qualified to integrate modern technologies at work, the growing need for ICT integration, as well as creating the skills curricula and learning programs.

3-Innovation

An effective system of economic linkages with academic institutions and other organizations that can cope with the growing knowledge revolution and adapt it to national needs in the light of global environmental changes.

4- Information and Communication Technology

It facilitates the dissemination and processing of information and knowledge, adapting it to local needs to support economic activity and motivating enterprises to produce high added values.

The World Bank's Knowledge Economy Index represents a simple arithmetic mean of four sub-indices representing the four components of the knowledge economy, embodied in economic incentives, institutional system, innovation, adoption of technology, education, training, and a modern ICT infrastructure.

The role of higher education in the knowledge economy according *"Knowledge Economy Vision 2030"*. It's one of the most important consequences of the intensive production of knowledge is the increasing social demand for institutions of higher education, so must accelerating the change in the professional path of the individual requires higher education and university institutions to provide non-traditional education in means, methods, places and content of the educational process (Al-Badri, 2009, pp. 32-33). According to *Knowledge Economy Vision2030* agree with Khatib (2003) to use new methods and technology in education to keep an abreast of the global development of education while diversifying the levels of graduates of engineering and technical programs to ensure the provision of competencies.

This required to continue investing in education and training so that our young men and women are equipped for the jobs of the future. We want Saudi children, wherever they live, to enjoy higher quality, multi-faceted education. Also investing particularly in developing early childhood education, refining our national curriculum and training our teachers and educational leaders. Must be a focus on innovation in advanced technologies and entrepreneurship.

Literature Review

The Arab Knowledge Index (2016) presented knowledge in six key areas in the Arab region:
Pre-university education, higher education,
Technical education, professional training,
Information and communication technology,
Research and development,
Innovation,
Knowledge economy.

The results showed that the performance of Arab countries in the field of research, development, and innovation still below the level expected to qualify to compete with global levels, We must not lose sight of the successes that have begun to be achieved in the region, especially in the Gulf countries, which are now competing with the rest of the world on the top ranks.

World Bank Report (2015) highlighted the relationship between knowledge and development in the "Knowledge for Development" initiative has proved in his report that the real gap lies in the ability to acquire knowledge, not income; that the difference between rich and poor states or social groups is not only in the weakness of financial resources, but also in their weak capacity to produce, share, or use knowledge to meet the daily challenges they face. Bakri (2014), highlighted the role of universities is a dynamic system through which activities and environmental considerations related to the mechanisms of interaction between society and the university are identified.

Abdul Rahman (2012) emphasized the relationship between the outputs of university education and their compatibility with the knowledge economies. The obstacles to applying knowledge economics to the theoretical colleges outweigh their theory of the practical faculties due to the lack of specializations and courses that are related to the requirements of the labor market. Changes. Guruz (2011), said that higher education institutions will have more urgency and control of change in the direction of expanding access to higher education and that scientific research should produce business activities suited to the transition to the knowledge economy.

The Ninth Development Plan (2010, 2014) adopted a strategy to move towards the knowledge economy by focusing on education that disseminates knowledge, establishing capacities to transfer and accumulate knowledge, and then generate and invest in various economic and social sectors. Ministry of Saudi Arabia Economy and Planning (2010) addressed the initial steps of planning towards transforming from an oil-based economy to a knowledge-based economy from the beginning of the Eighth Development Plan (2005, 2009). The Higher Education System in the Kingdom of Saudi Arabia has been keen to activate its role in achieving national development and responding to the requirements of comprehensive development by the expansion of the establishment of higher education institutions and the diversification of disciplines offered by the Ministry of Higher Education.

<u>Results of previous studies:</u>

- Previous studies have confirmed the importance of the role of university education in the dissemination of the knowledge economy .
- The planners of higher education policies should be interested in developing the university role in different fields of knowledge, to achieve ambitious goals in community development.
- There is a relationship between the outcomes of university education and its compatibility with the knowledge economy.

- The knowledge economy which promoted by universities is still poorly understood by many students.

The Descriptive Discussion

The data in Table (1) indicate that the average knowledge of the student in the knowledge economy reached 1.91. According to the tripartite Likert scale, most students are neutral in their knowledge of the knowledge economy. This reflects to a certain extent the gap between reality and what is expected of the university colleges Qassim according to Vision and Strategy 2030. For the purpose of achieving the suitability of these items, we applied the Alfa test, which used to validate the questionnaire, which gave a score of more than 70% that gives reassurance about the suitability of the form to analyze the appropriateness of the role of the education system in the knowledge economy. The average of The importance of the role of universities in spreading the knowledge economy (The role of a member of faculty member) reached 1.81, (Infrastructure for universities) reached 1.77, (The appropriateness of academic courses) reached 2.09, According to the tripartite Likert scale, most students are neutral in the main topics of the study, which shows the newness of the concept of knowledge-based economy in universities

Table No. 1: Study Sample

Sample	355			
Countries of these colleges	Saudi Arabia			
Variables	Frequents	lower	Upper	Average
Type of the College: Scientific Literary	 101 254	 -- --	 -- --	 -- --
the extent knowledge of student about knowledge economy	--	1.72	2.25	1.91
The importance of the role of universities in spreading the knowledge economy				
- The role of a member of faculty member	--	1.70	1.95	1.81
- Infrastructure for universities	--	1.61	2.09	1.77
- The appropriateness of academic courses	--	1.94	2.25	2.09

The data in Table (2) indicate the emergence of a new trend towards the knowledge economy between the faculties of the Qassim University to confirm the important role and direction towards the society based on the knowledge economy, still a weak.

The study opinion that the contribution of the faculty member and his encouragement and contribution to the dissemination of the concept of knowledge economy was good, as well as the contribution of a member of the Faculty Member in the application of tools to economize knowledge and raise the awareness of the community tools knowledge economy was good indicating the desire of the study to increase the role played by a Faculty Member in the system of a knowledge economy. So focus on the role of the faculty member in spreading the knowledge economy is the most important role among colleges.

On the other hand, the university infrastructure plays an important role in spreading the knowledge economy. The study saw poor support for innovative students in the scientific projects including knowledge economy, and in consolidating the disseminate knowledge economy. Not to mention that the University cooperative training is weak and only in the male section. The provision of modern technological infrastructure at the university, and support the central library and provide the information needed by students was good.

There is an urgent need to develop, the vision and mission of colleges in the processing of students for knowledge economies.

Table (2) the role of the educational system in the knowledge economy

First: the extent knowledge of student about knowledge economy	Lower	upper	Ave.	Sta. Dev.
Is the concept of knowledge economy sufficiently clear to the student?			1.77	0.74
Is the concept of knowledge-based economy sufficiently clear to the student?			1.71	0.76
Do you find that there is a difference between the concept of knowledge economy and the concept of knowledge based economy			2.25	0.75
Average	0.000	*0.617*	*1.91*	*0.52*
Second: The importance of the role of universities in spreading the knowledge economy				
1. the role of faculty member :				
The contribution of the faculty member in spreading the concept of knowledge economy			*1.95*	*0.75*
The extent to which a faculty member is encouraged to support the concept of the student's knowledge economy.			*1.85*	*0.81*
The extent of the contribution of the faculty member in spreading the concept of knowledge economy			*1.78*	*0.78*
The contribution of the faculty member in applying knowledge economy tools			*1.70*	*0.76*
The contribution of the faculty member in raising the awareness of the community tools knowledge economy.			*1.78*	*0.75*
Average	0.000	*0.936*	*1.81*	*0.59*
2. university infrastructure:				
Extent of University Technology Use			*2.06*	*0.77*
Extent of university support for innovative students			*1.62*	*0.72*
The availability of modern technological infrastructure for the university			*1.67*	*0.70*
Extent of university support for scientific projects provided by students to support the knowledge economy			*1.61*	*0.74*
The role of the university in the installation and dissemination of knowledge economy			*1.61*	*0.67*
Providing technology to university faculties.			*1.98*	*0.78*
The role of the central library in supporting and providing information for students.			*2.09*	*0.77*
The extent of benefiting from the community partnership between university and industrial institutions in society			*1.64*	*0.69*
The extent to which the university provides a training unit for students			*1.61*	*0.70*
Average	0.000	*0.822*	*1.77*	*0.45*
3. the suitability of university courses				
Is there a part of a course on the knowledge economy?			*1.94*	*0.79*
How to benefit from the services provided by the Central Library of the University			*2.25*	*0.81*
Average	0.000	*0.857*	*2.09*	*0.58*

Results

The positive contribution of the faculty member, his encouragement, and contribution to the dissemination of the concept of the knowledge economy, also his contribution in the application of tools economics knowledge and raise the awareness of the community was good.

The infrastructure of universities has an important role in spreading the knowledge economy, where the use of technology, the provision of a modern technological infrastructure at the university, the support of the central library and the provision of information needed by students play a good role The weakness of the role played by the university in supporting innovative students, and its weak support for scientific projects provided by students to support the knowledge economy, as well as weak utilization of the community partnership between students and industrial institutions in society

Recommendations

1. It is necessity to increase the role played by the Faculty Member in the system of a knowledge economy.
2. Increase the interest and support of innovative students, increase the support of scientific projects provided by students to support the knowledge economy
3. It is necessary to provide a unit to train students in the university and try to benefit from the social partnership between students and industrial institutions in the community
4. It is necessary to develop courses, vision, mission of colleges and diligence in the processing of students to meet the new communities of knowledge-based economies.

Reference

Al Hashimi, A & Faizah A, 2007, Curriculum and Knowledge Economy, Dar Al-Masirah for Publishing and Distribution, Amman, First Edition, p. 25- 26.

Arab Knowledge Report 2009, Towards Knowledge Literacy, United Nations Development Program, Dar Al Ghurair Printing & Publishing, Dubai, United Arab Emirates, 2009, p. 234.

Farouk, A, 2005, Knowledge Economy in Egypt Problems and the effects of its development, Cairo: Dar Al Ahram Publishing and Distribution, p. 26 - 34.

Kęstutis, T & Rasa D, 2006, The Assessment Models of Knowledge-Based Economy Penetration, engineering economics, publications of the Arab Institute for Training and Statistical Research, Lebanon, 2006, V. 50, No 5.

International Conference on Applied Economics – ICOAE 2011

Bakri, M, & Haj, S., 2014, Universities in the Knowledge Economy System - Looking to the Future - Paper presented to the Conference on "The Knowledge Economy and its Role in National Development", Ministry of Foreign Affairs, King Faisal Conference Hall, Riyadh, p. 23-33.

Abdul, R & Asmaa M, 2012, Development of university education through the use of knowledge economics, unpublished PhD thesis, Faculty of Education, Sohag University, Egypt, p. 167 - 171.

Kassem, M, 2010 Role of Knowledge Economy Strategy and Nanotechnology in Achieving Sustainable Development of Arab Knowledge Industries, Arab Academy for Science, Technology and Maritime Transport / Alexandria, League of Arab States.

Ministry of Economy and Planning, p. 13-14.

Guruz, K. 2011, Higher Education and international Student Mobility in the Global Knowledge Economy, State Unit of New York, P. 198, Available at

http://www.sunypress.edu/pdf/62192.pdf

Houghton, J. & Sheehan, P. (2000). A Primer on the Knowledge Economy, Centre for Strategic Economic Studies Victoria University. Available at

http://www.cfses.com/documents/knowledgeec onprimer.pdf

www.Worldbank.org/kam

http://www.knowledge4all.com/admin/uploads/files/AKI2016/References.pdf

http://www.ajoconnor.com/sites/default/files/images/WorkplaceoftheFuture-10ForcesShaping.pdf

Impact of job design attributes on performance attainment in business organizations: a survey of deposit money banks in Nigeria

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Keywords
Skill Variety, Task Identity, Task Significance, Autonomy, Feedback Job design attributes

Abstract

The objective of the study is to investigate "the Impact of Job Design attributes on Performance in Business Organizations: A Survey of Deposit Money Banks in Nigeria." The Job design attributes considered here are Skill Variety, Task Identity, Task Significance, Autonomy, and Feedback. The population of the study is the 21 Deposit Money Banks operational in Nigeria with a staff totaled at 84,345. The sample size of the study was 398 but 20% margin increase was added to allow for unreturned and incorrectly completed questionnaires. Therefore, the actual copies of questionnaires distributed were 477. Quasi experimental research design method was adopted. Disproportionate stratified sampling technique in which banks were classed into three strata was adopted. Both primary and secondary sources of data collection were utilized. For primary data source, 5 point-Likert rating scale of Strongly Agree (SA), Agree (A), Undecided (U), Disagree (D) and Strongly Disagree (SD) were employed. KMO (Kaiser-Meyer Olkin) measure for sampling adequacy with a threshold of 0.50 and a KMO value of 0.814 was obtained. Bartlett's Test of Sphericity is employed with an acceptance threshold of p = 0.000 indicating that factor analysis can be used for validity test while Cronbach Alpha for reliability test was performed to assess internal consistency of measurement adopting a weak threshold of 0.60. A Cronbach Alpha value of 0.886 was obtained.

The findings for the study revealed that Job Design attributes i.e Skill Variety, Task Identity, Task Significance, Autonomy, and Feedback impact significantly on the Performance output of the Deposit Money Banks in Nigeria. The study recommendations are that, Job should be designed to enhance employee motivation, productivity, quality ofwork life, promotion in order to accomplish performance goals. The study also recommended that, there should be periodic evaluation of Jobs to enhance Job enlargement and Job enrichment element as appropriate.

Race and the American Presidency – The intersection of past and present

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Abstract

Race matters in the United States. And because race has always mattered in this country, it is important to understand the history of this country in this context. If we are to understand the United States today, it is important to understand the attitudes and policies with respect to race that have impacted the country over the years – how they have changed and, in too many instances, how they have stayed the same.

An important aspect of American racial reality that has been overlooked has to do with the racial policies of the men who have been President of the United States. From George Washington to Barack Obama to Donald Trump, each of the forty-five presidents has played an important role in the national discussion on race. The singular and collective impact of these men on American racial issues is undeniable and worthy of special attention.

Five American presidents have been chosen to provide a sampling of why it is important to understand that race has always mattered in this country. Race also has mattered to each president, and it is important to know how the actions and policies of each president have been informed and affected in this regard

It is noted that African Diaspora Development Programs are neither a panacea nor a universal solution for the various problems and challenges encountered by a majority of African nations. Nevertheless, a coordinated set of strategies that address the need for financial capital as well as human capital can make a huge difference in the African present and in the African future.

As further noted, for these initiatives to be successful there will be a need to focus on the members of the African Diaspora and the concept of full (or partial) repatriation while also looking to improve and enhance the business environment of African countries. It is submitted that such a comprehensive and coordinated effort can bring about permanent and institutional positive change create a future for the people of Africa that includes realized dreams.

Race and the U.S. Presidency

The French historian and commentator, Alexis de Tocqueville, visited the new United States almost 200 years ago. At that time he observed that the single most critical and divisive issue in this country was race. The stark contrast between the stated ideals of America – liberty, the recognition and protection of rights – and the brutal and inhumane reality of legalized race-based slavery was always and forever irreconcilable.

It took the most violent war in the history of the nation with over 600,000 deaths and almost as many casualties just to abolish slavery. It took several amendments to the Constitution, multiple Supreme Court decisions and countless national, state and local laws to establish even partial recognition of the rights and humanity and dignity of black Americans. And, as you are reading this, the status of black Americans in this country is too often characterized by poverty, incarceration and huge canyons of inequity, despair and hopelessness.

The integration of peoples, races and creeds, the creation of a homogenous society, the development of a singular nation typically take place over long periods of time. America's lukewarm and halfhearted efforts at the legal and cultural inclusion of black Americans only began after the Civil War so one could argue that not enough time has elapsed.

Yet during that same period of time the descendants of Irish immigrants who were despised upon their arrival have taken their place as full and complete residents in the American mainstream. The same transition can be observed with respect to Asians, Italians, Slavs, Indians and Jews. Members of all of these ethnic groups were treated poorly, were marginalized and were barely on the fringes of respectable American society. But their descendants are fully included and invested in these United States, and when they sleep they are comforted by the American Dream.

Whether we look at Ferguson, Missouri or Tulsa, Oklahoma or the sick and sad tradition of lynching black Americans over a period of one hundred years after Emancipation, we know that the condition of black Americans has been different from that of the members of any of the ethnic groups mentioned. Mass incarceration, inflated infant mortality rates, depressed life expectancy, inequity, inequality and the constant struggle with the faithless hypocrisy and denial of white America have all served to provide nothing less than the American nightmare for black Americans when they try to sleep.

Race matters in this country. And because race has always mattered in this country, it is important to understand the history of this country in this context. If we are to understand the United States today, it is important to understand the attitudes and policies with respect to race over the years – how they have changed and, in too many instances how they have stayed the same.

An important aspect of American racial reality that has been overlooked has to do with the racial policies of the men who have been President of the United States. From George Washington to Barack Obama to Donald Trump, each of the forty five presidents has played an important role in the national discussion on race.

The "peculiar institution" called slavery was a major and constant factor in the early years of the United States that loomed large over the first few decades of American presidential history. It is important to note that eight of the first ten presidents of this country were slave owners.

Consider that George Washington kept some 300 slaves at his Mount Vernon plantation. Thomas Jefferson around 175 servants and fathered several slave children with one of his slaves, who was also the sister of his wife. And James Madison, James Monroe and Andrew Jackson all owned dozens of slaves.

And it is equally important to recognize that although in modern America there is virtually universal recognition of the wrongs of slavery, the names and images of these presidential slave owners are on American currency, Mount Rushmore, universities, cities, streets, bridges, airports and countless other places of honor. Some presidents have exacerbated the situation, some engaged in willful ignorance and some engaged in efforts to promote change, sometimes on the margins, sometimes in a more substantive way.

Five presidents have been chosen to provide a small sampling of why it is important to understand that not only does race matter in this country, race also has mattered to each president, and it is important to know what each president has done in this regard.

George Washington

The first president of the United States owned slaves from the age of ten. Upon his marriage to the wealthy widow Martha Custis, he not only became one of the richest men in the country, he also presided over the Mount Vernon estate in Virginia on which labored over three hundred slaves – men, women and children who George Washington owned, bought and sold. Over three hundred slaves of African descent over which he literally held the power of life and death.

Historians will usually agree that there was never an easy life for slaves who could be beaten, killed or sold on the whim of their owners. As a large slave estate, Mount Vernon was the site of a harsh life for the men, women and children who were the property of George Washington. During his illustrious career Washington was known to have demanded the return to slavery of black men and women who had sided with British during the Revolutionary War based on the promise of freedom by the British. Washington demanded the return of the "property" of slave owners, condemning hundreds of men and women to a return to misery.

George Washington was also known to have expressed doubts regarding the viability of slavery in a country dedicated to principles of freedom and liberty, but he went along with the legalization of slavery in the new republic when the Constitution was ratified with slavery left untouched. Washington never freed a slave during his lifetime although he has the dubious distinction of being the only so-called Founding Father to free his slaves.

James Monroe

The fifth President of the United States was one of the most popular presidents in American history and he was also a slave owner. During his lifetime he managed to acquire a large plantation that depended upon the labor of many slaves. There is no record of how many slaves that James Monroe owned, but it is known that he sold slaves on numerous occasions in order to pay off debts occasioned by his lavish lifestyle.

As president, Monroe articulated a view of slavery and black Americans that was held by many white Americans at the time. The thinking was that while slavery was not a sustainable institution and would and should disappear over time, black Americans were inferior and simply unfit to ever be full citizens in the United States. Therefore, the thinking went on, black Americans should be repatriated to Africa, from whence their people came. And during his administration, a large number of black Americans were indeed sent to West Africa and established what is now the nation of Liberia – the capital, Monrovia, having been named for President James Monroe.

It should be noted that the black Americans transported to what is now Liberia were not necessarily descendants of people in that area of West Africa. Also, the people indigenous to this area were not consulted on the matter and were in effect colonized by the black Americans who had returned at the behest of white Americans.

The Liberian experiment was not replicated but the idea of repatriating black Americans was a strategy that was supported by numerous opponents and supporters of slavery right through the Civil War. Ironically, in the 20th century a significant number of black Americans supported Marcus Garvey and his Back to Africa movement – a 20th century version of James Monroe's black repatriation plan.

Rutherford B. Hayes

Rutherford B. Hayes is best known as being one of only three presidents who were elected without winning the popular vote (the others being George W. Bush in 2000 and Donald J. Trump in 2016). When his contest with New York State Governor Samuel Tilden in 1876 went to the Electoral College, representatives of Hayes, then the governor of Ohio, were able to convince delegations from states that were part of the Confederacy just eleven years earlier, that he would withdraw federal troops from the South if he was elected president with their support.

The deal was done and being true to his word, when he was inaugurated as the 19th president of the United States, Hayes withdrew federal troops from the South, thereby ending the Reconstruction Era. With the withdrawal of federal troops, a reign of terror began for black Americans who lived in the former Confederate States of America. The decade following the inauguration of Rutherford B. Hayes saw the rise of the Ku Klux Klan terrorist regime, the imposition of the American version of apartheid – Jim Crow laws - and the intentional, systematic and purposeful removal of all of the constitutional rights of black Americans, beginning with the right to vote.

What progress had been made by black Americans evaporated with the inauguration of Rutherford B. Hayes and 140 years later millions of black Americans are still seeking equity, justice and equality, not only in the South but throughout these United States. Hayes has been able to hide in the mists of history, but he played a major role in ending Reconstruction and returning black Americans to a status of subjugation and oppression.

He was not a Klansman, but without Rutherford B. Hayes as president, there might not have been a Klan. Rutherford B. Hayes was not a race terrorist, but he enabled the race terrorists in the South who killed countless black Americans. Rutherford B. Hayes also set the stage for the so-called Great Migration of black Americans from the South although "migration" may not have been the correct word to use, since many of the "migrants" were actually refuges from the terror that was American South.

Chester A. Arthur

Chester A. Arthur was a New York attorney who became the 21st President of the United States due to tragedy. He had been elected Vice President and assumed the presidency when James Garfield became the second American president to be assassinated. By the time Arthur became president, the Reconstruction Era had been over for five years. As a result the remnants of the leadership of the Confederate States of America rose again wearing the uniform of Democrats. The supporters of the Republicans were mostly former slaves and the Democrats immediately and successfully disenfranchised them for almost a hundred years.

Given the weakness of the southern Republicans President Arthur sought to build a coalition with the Readjuster Party, a short-lived political movement that pursued a progressive agenda in the South, including the funding education for blacks and whites along with the abolition of the poll tax and the whipping post. For a time the Readjuster Party was seen as being the political vehicle that could provide blacks in the South some level of protection and support and Arthur's support was important. However, the platform of the Readjusters was not sustainable in the South and it disappeared.

To make matters worse for black Americans, in 1883 the Supreme Court of the United States declared the Civil Rights Act of 1875 unconstitutional. President Arthur expressed his disapproval of this court decision but was unable to get Congress to pass any laws in response to the Supreme Court's decision and it would be 89 years before civil rights for black Americans would be anything close to being the law of the land.

Perhaps President Arthur's most notable act regarding race was to overturn the court martial of black West Point cadet Johnson Whitaker on the grounds that the case was illegal and based on racism. Arthur's actions were as remarkable as the reality of racism at West Point was unremarkable.

Woodrow Wilson

Woodrow Wilson was the 28th President of the United States and is best known for his progressive policies, his leadership of this country during World War I and his quixotic effort to found the League of Nations, the direct ancestor the United Nations. Wilson was a native of Virginia and president of Princeton University, acknowledged to be the most "southern" of the Ivy League schools.

Perhaps because of his southern heritage he made statements such as:

"The white men were roused by a mere instinct of self-preservation—until at last there had sprung into existence a great Ku Klux Klan, a veritable empire of the South, to protect the Southern country."

And in speaking to a delegation of black American leaders:

"Segregation is not a humiliation but a benefit, and ought to be so regarded by you gentlemen."

And also:

"[Reconstruction government was detested] not because the Republican Party was dreaded but because the dominance of an ignorant and inferior race was justly dreaded."

These are not the rantings for some Klansman with a burning cross in the background. These are the sober and measured words of the 28th President of the United States who institutionalized racial segregation in the federal civil service through use of his executive power and hosted the premiere showing of the classic racist motion picture “Birth of a Nation” in the White House. What is known about President Wilson is that he was a committed and unapologetic racist who believed in white supremacy with all his heart.

Conclusion

Forty other men have been inaugurated President of the United States and we would do well to understand their racial policies as part of our understanding of their presidencies and these United States. Clearly historians have either ignored or diminished the importance of this aspect of the national perception of the American presidency.

For many citizens of this country, white and black, American myth is clearly more comforting than American reality. But as this overview indicates, to this very day this nation honors slave owners and racists who actively and publicly sought to oppress and humiliate black Americans. The fact that they represented the times in which they live is but small comfort to black Americans today or to their ancestors who had to live through those times.

To those who would argue that these horrific events, actions and rhetoric belong to the past, the response must be that until this unholy American past is recognized and denounced, there can be no possibility of real progress in the present or institutional and cultural change in the future. The first step to recovery is always the recognition of the problem. True American history can teach us a lot. Revisionist and mythical history blinds us to the truth and binds us to a reality that is neither desirable nor sustainable.

References

Facts About the Slave Trade and Slavery – The Gilder Lehrman Institute of American History - https://www.gilderlehrman.org/history-by-era/slavery-and-anti-slavery/resources/facts-about-slave-trade-and-slavery

Why Were Africans Enslaved? – National Liverpool Museums http://www.liverpoolmuseums.org.uk/ism/slavery/archaeology/background/

Alexis de Tocqueville on Racial Inequalities in America – Cameron McWhirter – http://cameronmcwhirter.com/wordpress/alexis-de-tocqueville-on-racial-inequalities-in-america/

Irish Potato Famine – Gone to America – http://www.historyplace.com/worldhistory/famine/america.htm

How Many U.S. Presidents Owned Slaves? By Evan Andrews-JULY 19, 2017 - http://www.history.com/news/ask-history/how-many-u-s-presidents-owned-slaves?

George Washington’s Mount Vernon - http://www.mountvernon.org/george-washington/slavery/

Highland and Slavery - http://highland.org/james-monroe-and-slavery/

Marcus Garvey and the Back to Africa Movement – http://www.inmotionaame.org/migrations/topic.cfm;jsessionid=f830282801151914147 6124?migration=4&topic=8&bhcp=1

"Betrayal of the Freedman: Rutherford B. Hayes and the End of Reconstruction" by Roger D. Bridges - http://www.rbhayes.org/hayes/betrayal-of-the-freedman-rutherford-b.-hayes-and-the-end-of-reconstruction/

Whitaker, Johnson C. - http://www.blackpast.org/aah/whittaker-johnson-c-1858-1931

The Racist Legacy of Woodrow Wilson – Dick Lehr – https://www.theatlantic.com/politics/archive/2015/11/wilson-legacy-racism/417549/

Important extrinsic factors on turnover intention

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Keywords
Extrinsic variables, trade-off alternatives, turnover intention

Abstract

This study identifies possible extrinsic sources that generate dissonance and finds important decision variables that may improve information systems (IS) professionals' level of satisfaction. A logit model presents four important factors that produced significant impacts on the formulation of turnover intention: the level of satisfaction, the level of fitness, amount of managerial input (freedom, job variety), and amount of nonmonetary output (career progress opportunities, chance to learn). Both job satisfaction and level of fitness are considered as intermediate variables that link input variables to turnover intention.

Introduction

The training of new IS professionals requires considerable time and is highly influenced by rapid changes in technologies. IS professional's turnover may result in considerable costs to recruit, select, and train new employees before they become productive. The lack of clarity regarding the reasons for turnover and the inaccuracy of organizational data for turnover reasons encourage the use of turnover intention. Fishbein and Ajzen (1975) contended that "the best single predictor of an individual's behavior be a measure of his intention to perform that behavior."

The analysis of turnover intention can handle other aspects of turnover as well. The analysis of turnover intention can exclude those who leave for organizationally unavoidable reasons such as moving to another spouse-imposed location or medical problems. By excluding these factors, the analysis can isolate the pertinent variance in turnover that can be controlled by management. The analysis of turnover intention can also include the perceptions of those employees who try to leave the organization sooner or later. By including them, the analysis of turnover intention can provide valuable information on how to keep qualified IS professionals.

Turnover intention takes place when employees try to revise their previous choices relating to their current job. It is assumed that their previous choices were their best alternatives available when the decisions were made. Therefore, it is vitally important to understand why IS professionals revised the previous choices. The process of equilibrium (Piaget, 1980) provides a way to explain how IS professionals arrived at turnover intention. The differences between actual job features and these standards generate 'disequilibrium' which calls for amendment. Employees may have different standards of comparison and different preferences toward job features. Therefore, individual differences in the formation of 'disequilibrium' that results in turnover intention should also be considered (Salancik & Pfeffer, 1979).

Individual differences may be reflected in the way in which employees evaluate possible alternatives. When evaluating possible alternatives, an employee tries to maximize his/her utility value. Employees prefer the alternative with the largest amount of outputs for a given amount of inputs, or the alternative with the smallest amount of inputs for a given amount of outputs. Trade-offs may exist between decision. If trade-offs exist, the effect of one variable on turnover intention cannot be evaluated alone.

Variables Related to a Job

Because turnover intention is formulated while an employee is working on the current job, the analysis of job characteristics is important to understand turnover. The static approach has been used to focus on the analysis of constituent elements of a job, such as work itself, supervision, promotion opportunity, pay, and coworkers (Smith, Kendall and Hulin, 1969); skill variety, task identity, task significance, autonomy, and task feedback (Hackman and Oldham, 1976).

However, the dynamic approach emphasizes the process by which job characteristics influence turnover intention and job attitudes. Attractiveness is a utility function of perceived outputs. The possibility of attaining outcomes can be replaced with the amount of input to get the outcomes. Therefore, choices about a job are based on the interaction between input and output job characteristics. Thus, general system theory is useful to consider the interaction. To apply the system theory, decision variables are divided into two categories: input and output. Table 1 presents important job characteristics which are classified based on the system theory. Input characteristics are divided into two subcategories: amount and difficulty and managerial style. Output characteristics are divided into two subcategories: monetary and non-monetary rewards.

This study focuses on the importance of trade-off alternative choices among decision variables. The following three trade-offs are possible; (a) trade-off between input and output variables, (b) trade-off among input variables, and (3) trade-off among output variables. A rational employee must select one of the following alternatives: (a) alternatives which offer the highest outputs for a given amount of inputs, and (b) alternatives which require the lowest amount of inputs for a given level of outputs.

Research Hypotheses

The framework of this study is composed of the overall level of fitness, satisfaction, and two discrepancy sources in which the decision variables are interrelated (Figure 1). This study uses turnover intention as a target variable as a final product of the cognitive process that tries to remove the dissonance. The research model is designed to find extrinsic variables that create the dissonance in the formulation of turnover intention.

H1a: IS professionals whose level of discrepancies is high display a higher chance of generating turnover intention.

H1b: IS professionals whose level of fitness to the current job is low display a higher chance of generating turnover intention.

H1c: IS professionals who are dissatisfied with the current job display a higher chance of generating turnover intention.

The first set of hypotheses concerns the role of the following variables in formulating turnover intention among IS professionals: 1) levels of discrepancies resulting from two different extrinsic sources, 2) the level of fitness, and 3) the level of satisfaction. The purpose of these hypotheses tests is to find important reasons that generate turnover intention.

The first possible extrinsic source of discrepancy is 'the perception of available alternatives.' Many previous studies (Hulin et al. 1985; Bluedorn, 1982; Mobley et al., 1979) examined the impact of perceived alternatives on turnover intention and reported that perceived alternatives were indirectly related to turnover intention. Employees who have abundant and attractive job opportunities outside the organization will experience less satisfaction. Marketable employees request that they be compensated at the same level as others in the market. The "greener grass" phenomenon (Schneider, 1976) holds that "the more abundant and attractive jobs are available outside of the organization, the less satisfaction employees will experience in their current position."

Another extrinsic source of discrepancy in this study is 'the appropriate use of motivation policy' to match employees' needs with rewards. Employees are motivated when their needs are met through the motivation policies used by an organization. If motivators emphasized by the organization are different from those preferred by employees, discrepancy may be created for the employee. The inappropriate application of motivation policies can be another source of discrepancy. Wanous (1980) and Vandenberg & Scarpello (1990) applied the need-reward matching concept to explain voluntary turnover and suggested that the level of mismatch of reward policies with employees' needs is directly related to voluntary turnover.

The appropriateness of motivational policies is not based on static job characteristics, but dynamic job characteristics. Dynamic job characteristics imply trade-off (interaction) among conflicting job characteristics. Trade-offs themselves also reflect the needs of an employee. Therefore, the appropriateness of motivational policies can measure the level of need-reward match.

The role of the level of satisfaction in generating turnover intention is also examined by some previous studies (Baroudi, 1985; Cotton and Tuttle, 1986). The studies indicated a negative relationship between job satisfaction and turnover intention. However, a low amount of variance is explained in both studies.

H2a: The levels of discrepancies are significantly related to the level of satisfaction.

H2b: The level of fitness to the current job is significantly related to the level of satisfaction.

The second set of hypotheses concerns the role of the following variables in determining the level of satisfaction: 1) levels of discrepancies resulting from different sources and 2) the level of fitness. These hypotheses tests assume that job satisfaction plays an important role in generating turnover intention. If the determinants of job satisfaction are different from those of turnover intention, job satisfaction can be considered as an intermediate variable which connects its determinants with turnover intention. Rice et al. (1990) examined the association of multiple discrepancies with the satisfaction level. Their results indicate that the hypothesis related to the strong association is generally well supported.

H3: The levels of discrepancies are significantly related to the level of fitness.

Hypothesis 3 concerns the association of the levels of discrepancies resulting from different sources with the level of fitness. Hypothesis 3 is developed on the fact that IS professionals who think they do not fit their current jobs can be vulnerable to dissatisfaction and/or turnover intention. Therefore, it may be important to identify the determinants of the level of fitness.

Data analysis

The research instrument consisted of three parts. The first part contained 12 items to collect data on the level of organizational stagnation, job satisfaction, desire to quit, intent to quit, and other measures to validate the overall level of discrepancy. The second part is designed to measure the level of discrepancy resulting from the gaps between individual needs and organizational rewards. IS professionals are asked to choose between two conflicting job characteristics, and to indicate the level of preference for the choice. An IS professional's preference reflects his/her needs, while the organization preference reflects the organization's motivation policies. The differences between the two are used as the level of discrepancy for this source.

The third part captures data to examine the level of discrepancy regarding perceived alternatives in other organizations by examining the attractiveness of the alternatives. IS professionals are asked to compare the present job to the alternatives in other organizations with respect to the 11 job features (except Incentives) (Table 1). A total 25 responses (24.0%) is collected from the 103 questionnaires, and a usable return rate is 20.3 percent (21 usable questionnaires). The important decision variables (job features) used to represent the two extrinsic sources of discrepancy are abbreviated throughout this study as shown in Table 2.

First, descriptive statistics (mean and standard deviation) for the appropriateness of motivation policies are presented in Table 3. Each item reflects trade-off preferences (of individual and organization) between two conflicting job characteristics. For example, among input decision variables, the first variable I_WORK, represents the trade off between more work for higher pay and more leisure with less pay. The mean value of I_WORK, 3.26, is slightly lower than its middle value of 4. Therefore, both IS professionals and organizations prefer 'more work for higher pay' rather than 'more leisure with less pay.' But I_WORK shows there is no significant preference difference on 'more work vs. more leisure' between individual and organization.

The biggest gap between individual and organizational preference is 2.08 for 'more freedom with responsibility versus more control with less responsibility' denoted by I__FREE. That is, IS professionals preferred more freedom on their job, but perceived that their companies wanted to exercise more control. The second biggest gap is found in I_COWORK, the direction and level of teamwork among co-workers rather than competition among co-workers is more important to both IS professionals and organizations. 'Challenging with more stresses is also preferred by both groups rather than 'more routine with less stress.'

Significant differences between IS professionals and organizations in the opposite direction are found in I_FREE and I_AMBIG decision variables. IS professionals prefer "more freedom with responsibility", but organizations prefer "more control with less responsibility." IS professionals also prefer "more creative work with ambiguity", but organizations prefer "more organized work with less ambiguity."

In output variables side, it is interesting that organizations more prefer "Stressful work with high pay" against "lower pressure with less pay", I_STRESS, than IS professionals. Both groups prefer 'more chance to learn new skills" rather than "more financial rewards", I_LEARN. Other interesting points in significant preference difference in the opposite direction are with I_CAREER, I_ESTEEM, I_RISK variables. Organizations consider "more career progress with lass pay" and "more prestige or self-esteem" more important and prefer "lower pay with job security", but IS professionals prefer more "higher pay with less career progress", "more financial rewards" and "higher pay with risk." The result indicates that IS professionals consider monetary outputs more important, but as shown in I_LEARN, they prefer to have more chance to learn new skills rather than rewarded with financial values.

Second, the level of discrepancy resulting from the advent of a new alternative is measured by the attractiveness of the alternatives (Table 4). The first variable, C_PAY, indicates the level of attractiveness toward possible alternatives in terms of pay level. Mean values range from 2.83 to 3.40. The highest mean value is the value of career progress opportunities (C_CAREER) and the lowest one is the value of job security (C_SECURE). The highest mean value of C_CAREER indicates IS professionals consider that another organization can provide better career progress opportunities. The results illustrate IS professionals other organizations can provide more benefits and incentives (C_BNFT), chance to learn (C_LEARN) and better working conditions (C_COND).

The reliability and validity of the collected data are examined to ensure adequacy for further analysis. 12 items are used to measure the level of discrepancy, and 3 items (Q3, 4 and 5) are used to assess the level of satisfaction. Cronbach's coefficient alpha for the 12 items measuring the level of discrepancy is 0.845. Cronbach's coefficient alpha for the 3 items measuring the level of satisfaction is 0.890.

Factor analysis is used for the test of construct validity. Factor loading patterns are shown in Table 5. This study assumed the three different trade-offs among variables used by IS professionals in their turnover decision. I__WORK, I__STRES and I__RISK, which examined the effects of trade-offs between variables that decide the total amount of inputs and outputs, are loaded on factor 5. I__FREE, I__AMBIG and I__ROUT, which examined the effects of trade-offs among variables that decide the total amount of inputs, are loaded on factor 6. The three items (I__LEARN, I__CAREE, I__ESTM), which examined the effects of trade-offs among variables that decide the types of outputs, are loaded on factor 7. However, Cronbach's alpha for factor 7 is below 0.7 and there is no sound evidence for reliability. Therefore, it is excluded from further analysis. All other loadings related to trade-offs among decision variables are the same as expected.

The dependent variable in the MDA model, turnover intention, has two groups: IS professionals with and without turnover intention. Wilks' Lambda and Hotelling T^2 test statistics are less than 0.01. This means IS professionals with turnover intention can be different from those without turnover intention in terms of independent variables.

The level of satisfaction (S_LEVEL) had the largest F-value in Table 6. That means that the level of satisfaction makes the greatest contribution in classifying the two groups. Its r-square value, 0.1630, means 16.30 percent of the total variability of the dependent variable is explained by the level of satisfaction. The level of fitness had the next largest F-value. Most of variables except factor 6 are important in the formulation of employee's turnover intention.

Each individual coefficient is tested to measure the contribution of individual variables. Chi-square and the asymptotic t test results (Table 7) support the level of fitness, factor 3, factor 4 and the level of satisfaction play an important role in the formulation of turnover intention. Regression analysis identifies the following variables as the determinants of the level of satisfaction: amount of non-monetary output (factor3), managerial characteristics of input (factor5), and the level of fitness (Table 8). In Table 9, regression analysis to examine the relationship between important factors identified and the level of fitness identifies managerial input variables (Factor 4, freedom and variety) as the determinant of the level of fitness. However, R-square is 0.12. It implies that the level of fitness is not explained well by the variables included in the model.

Conclusion

This study has attempted to provide useful information to help management retain IS professionals by considering two aspects of turnover intention: 1) human information processing and 2) the trade-off among decision variables. The use of human information processing is an attempt to find possible sources that generate discrepancy which can lead to turnover intention. Consequently, the study examined how IS professionals evaluated possible alternatives. It is assumed that IS professionals try to maximize their utility value through trade-offs among decision variables.

This study identifies the following four important factors that produced significant impacts on the formulation of turnover intention: the level of satisfaction, the level of fitness, amount of non-monetary output (factor3), and amount of managerial input (factor4). The level of fitness and the level of satisfaction also play an important role in the formulation of turnover intention. Therefore, it is appropriate to examine antecedents of the two variables. The following three factors are found from regression analysis as the determinants of the level of satisfaction: the level of fitness, non-monetary output (factor3), and trade-offs between input and output variables (factor5). This finding indicates that variables related to the input side such as work load and job stress exert an influence on the formulation of turnover intention through the level of satisfaction.

According to Baroudi's study (1985), the association of input variables with turnover intention is not strong, even though it is significant. However, a strong association of those input variables with the level of satisfaction is reported. This means that the input variables are important antecedents of job satisfaction, but they are not important determinants of turnover intention. Therefore, job satisfaction can be considered as an intermediate variable which links input variables and turnover intention.

Another regression analysis identifies trade-offs between input and output variables (factor5) as the determinant of the level of fitness. IS professionals might consider quitting the jobs to resolve the state of discrepancy, when they feel not fitting their current jobs.

Aronoff and Ward (1990) found the importance of the current level of organizational stagnation. The more overloaded an organization is with mature superiors, the lower opportunities to be promoted. And the lower opportunities to be promoted, the lower the opportunities to meet employees' growth needs. Lower opportunities to meet growth needs may result in a greater discrepancy. The current level of organizational stagnation directly impacts on the level of fitness and the level of satisfaction.

References

Aronoff, C. E. and J. L. Ward. "Employee Turnover Has its Good Side." Nation's Business. April, 1990: 53-55.

Baroudi, J. J. "The Impact of Role Variables on IS Personnel Work Attitudes and Intentions." MIS Quarterly. 9.4 (1985): 341-356.

Bluedorn, Allen. "A Unified Model of Turnover from Organizations." Human Relations. 35.2 (1982): 135-153.

Cotton, J. L. and J. M. Tuttle. "Employee Turnover: A Meta-Analysis and Review with Implications for Research." Academy of Management Review. 11.1 (1986): 55-70.

Fishbein, M. and I. Ajzen. "A Meta-Analysis of the Correlates of Role Conflict and Ambiguity." Journal of Applied Psychology. 68.3 (1975): 320-333.

Hackman, J. R. and G. R. Oldham. "Development of the Job Diagnostic Survey." Journal of Applied Psychology. 60. (1975): 159-170.

Hulin, C. L., M. Roznowski, and D. Hachiya. "Alternative Opportunities and Withdrawal Decisions: Empirical and Theoretical Discrepancies and Integration." Psychological Bulletin. 97. (1985): 233-250.

Mobley, W. H., R. W. Griffeth, H. H. Hand, and B. M. Meglino. "Review and Conceptual Analysis of the Employee Turnover Process." Psychological Bulletin. 86.3 (1979): 493-522.

Piaget, Jean. Adaptation and Intelligence: Organic Selection and Phenocopy. Chicago : University of Chicago Press, 1980.

Rice, R.W., S.M. Phillips and D.B. McFarlin. "Multiple Discrepancies and Pay Satisfaction." Journal of Applied Psychology. 75(4). (1990):386-393.

Salancik, G. R., and Pfeffer, J. "A Social Information Processing Approach to Job Attitude and Task Design." Administrative Science Quarterly. 23.3 (1978): 224-253.

Schneider, J., "The Greener Grass Phenomenon: Differential Effects of a work Context Alternative on Organizational Participation and Withdrawal Intentions," Organizational Behavior and Human Performance. 16(2). (1976):308-333.

Smith, P. C., C. Kendall, and C. Hullin. The Measurement of Satisfaction in Work and Retirement. Chicago: Rand McNally, 1969.

Vandenberg, R. and V. Scarpello. "The Matching Model: An Examination of the Processes Underlying Realistic Job Previews." Journal of Applied Psychology. 75.1 (1990) : 60-67.

Wanous, J. P. Organizational Entry:_Recruitment, Selection, and Socialization of Newcomers. Reading, MA: Addison-Wesley. 1980.

Table 1. Four Categories of Decision Variables

Input	Amount & Difficulty	Work Load Difficult Job Stress
	Managerial Style	Job variety Freedom Working conditions
Output	Modetary	Current pay level Benefits Incentive
	Non-monetary	Career progress opportunities Job security Chance to learn

Sources: Mobley et al. (1979), Locke (1976), and Hom and Griffeth(1991)

Figure 1. Research Framework and Hypotheses

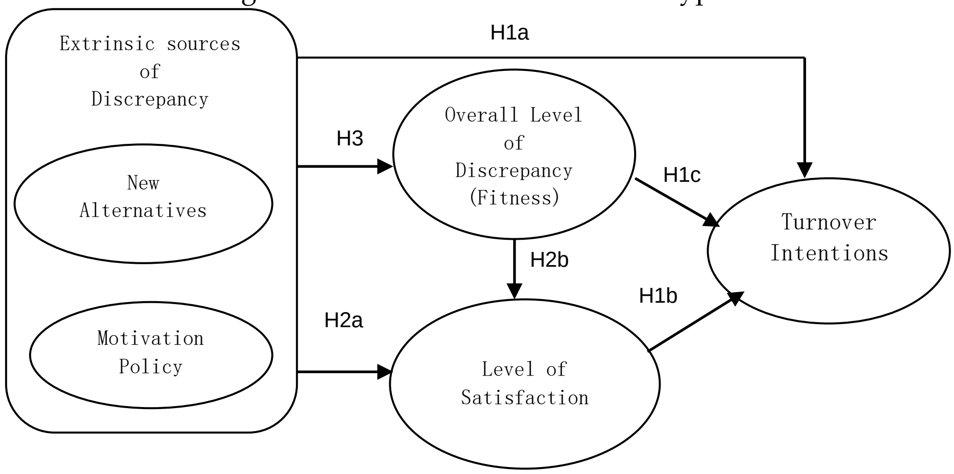

Table 2. Abbreviations for Decision Variables

Source 1: Attractiveness of Alternatives

C_PAY -The level of attractiveness toward the alternatives in other organizations in terms of pay level.
C_BNFT -The level of attractiveness toward the alternatives in other organizations in terms of benefits and Incentives.
C_CAREER -The level of attractiveness toward the alternatives in other organizations in terms of career progress Opportunities.
C_CHANCE -The level of attractiveness toward the alternatives in other organizations in terms of chance to learn.
C_SECURE -The level of attractiveness toward the alternatives in other organizations in terms of job security.
C_LOAD -The level of attractiveness toward the alternatives in other organizations in terms of work load.
C_COND -The level of attractiveness toward the alternatives in other organizations in terms of working conditions.
C_STRESS -The level of attractiveness toward the alternatives in other organizations in terms of job stress.
C_FREE -The level of attractiveness toward the alternatives in other organizations in terms of the amount of freedom to do the job.
C_VARY -The level of attractiveness toward the alternatives in other organizations in terms of job variety.
C_COWORK -The level of attractiveness toward the alternatives in other organizations in terms of coworkers.

Source 2: Appropriateness of Motivation Policies
I_WORK -The difference between IS_WORK and Org_WORK.
I_STRES -The difference between IS_STRES and Org_STRES.
I_RISK -The difference between IS_RISK and Org_RISK.
I_FREE -The difference between IS_FREE and Org_FREE.
I_AMBIG -The difference between IS_AMBIG and Org_AMBIG.
I_ROUT -The difference between IS_ROUT and Org_ROUT.
I_LEARN -The difference between IS_LEARN and Org_LEARN.
I_CAREE -The difference between IS_CAREE and Org_CAREE.
I_ESTM -The difference between IS_ESTM and Org_ESTM.
I_COWOR -The difference between IS_COWOR and Org_COWOR.

Table 3. Descriptive Statistics for the Appropriateness of Motivation Policies

Items (Abbreviation)	Individual Preference Mean	Individual Preference Std.Dev.	Organizational Preference Mean	Organizational Preference Std.Dev	Differences Mean	Differences Std.Dev.
(I_Work)More work with higher pay vs. More leisure with less pay	*3.26	1.63	*3.44	1.23	-0.18	2.20
(I_Free)More freedom with responsibility vs. More control with less responsibility	*2.04	1.06	4.13	1.68	*-2.08	2.03
(I_Ambig)Creative work with ambiguity vs. Organized work with less ambiguity	*2.87	1.65	4.12	1.73	*-1.25	2.46
(I_Routine)Challenging with more stress vs. More routine with less stress	*2.77	1.23	*3.43	1.64	*-0.66	2.15
(I_Cowork)Team work among co-workers vs. Competition among co-workers	*1.88	1.17	*3.35	1.85	*-1.47	2.28
(I_Stress)Stressful work with high pay vs. Lower pressure with less pay	*3.62	1.47	*3.44	1.37	0.18	2.06
(I_Risk)Higher pay with risk vs. Lower pay with job security	*3.75	1.62	4.02	1.49	*-0.27	2.22
(I_Learn)More chance to learn new skills vs. More financial rewards	*2.62	1.66	*3.32	1.28	*-0.70	2.20
(I_Career)More career progress with less Pay vs. Higher pay with less career progress	*4.21	1.56	*3.73	1.44	*0.48	2.26
(I_Esteem)More prestige or self-esteem vs. More financial rewards	*4.26	1.73	*3.67	1.23	*0.59	2.31

Table 4. Descriptive statistics for Attractiveness of Alternatives in other organizations

Variables (codes)	Comparison Mean	Comparison Std. Dev.
Pay (C_PAY)	3.13*	0.93
Benefits and incentives (C_BNFT)	3.12*	0.83
Career progress opportunities (C_CAREER)	3.40*	0.81
Chance to learn (C_LEARN)	3.24*	0.87
Job security (C_SECURE)	2.83*	0.86
Work load (C_LOAD)	2.97	0.71
Working conditions (C_COND)	3.13*	0.77
Job stress (C_STRESS)	2.96	0.78
Amount of freedom to do my job (C_FREE)	2.94	0.82
Job variety (C_VARY)	2.96	0.82
Coworkers (C_COWORK)	3.04	0.67

Table 5. Rotated factor pattern

	FACTOR1	FACTOR2	FACTOR3	FACTOR4	FACTOR5	FACTOR6	FACTOR7
I_WORK	-0.03450	0.03780	0.00157	0.09605	0.80441	0.11136	0.10989
I_STRES	0.05972	-0.00107	-0.01185	-0.08100	0.83441	0.12768	0.12078
I_RISK	0.15144	0.05353	0.09342	-0.06673	0.68175	0.17601	0.08798
I_FREE	0.08119	0.08957	0.08600	0.14050	0.12110	0.75677	0.00592
I_AMBIG	-0.02934	0.09178	0.11590	-0.01044	0.14549	0.74040	0.11816
I_ROUT	-0.02890	0.11763	-0.15019	0.24314	0.29113	0.56296	0.11102
I_LEARN	0.05125	0.08032	0.19888	-0.01913	0.05486	0.22996	0.60953
I_CAREE	-0.13922	0.04292	-0.16818	0.09824	0.18028	0.10497	0.69909
I_ESTM	0.01307	0.14367	0.02546	-0.04180	0.13871	-0.04390	0.72647
I_COWOR	0.22299	-0.04546	0.20392	0.05596	0.14333	0.37693	0.12448
C_PAY	0.06171	0.73299	0.13099	0.01107	0.13897	0.02354	0.14901
C_BNFT	0.03569	0.74541	0.14678	0.06423	-0.03468	0.10388	-0.02401
C_CAREER	-0.05535	0.31124	0.73704	0.14457	0.02193	-0.03594	0.00860
C_CHANCE	0.09321	0.14251	0.67448	0.35015	0.05903	0.03024	-0.11725
C_SECURE	0.14204	0.11893	0.14345	-0.00575	0.05714	0.00798	0.05639
C_LOAD	0.76091	0.07544	0.01594	0.11357	0.04752	-0.07851	-0.03562
C_COND	0.62206	0.25172	0.16403	0.12340	0.00432	0.13017	0.05666
C_STRESS	0.69374	0.00812	-0.04841	0.16284	0.07443	0.02069	0.03945
C_FREE	0.25556	0.09297	0.16300	0.74461	-0.06187	0.08433	0.03667
C_VARY	0.10958	0.04279	0.25985	0.77627	0.08932	-0.04860	0.01287
C_COWORK	0.19677	0.10506	0.10282	0.10823	-0.01103	0.01984	0.00175

Table 6. Univariate Statistics for the Significance Test of Discriminant Function

Variables	R-square	RSQ/(1-RSQ)	F	Pr > F
S_level	0.162964	0.1947	80.0184	0.0001
Fitness	0.147172	0.1726	70.9261	0.0001
Factor1	0.014054	0.0143	5.8585	0.0159
Factor2	0.016530	0.0168	6.9081	0.0089
Factor3	0.092856	0.1024	42.0705	0.0001
Factor4	0.105967	0.1185	48.7146	0.0001
Factor5	0.050398	0.0531	21.8131	0.0001
Factor6	0.007459	0.0075	3.0889	0.0796

Table 7. Test of Significance for Parameter Estimates: Maximum Likelihood Analysis

Variables	DF	t-value	Pr > F
S_level	1	8.2128	0.0000
Fitness	1	3.1209	0.0018
Factor1	1	1.1314	0.2571
Factor2	1	1.5330	0.1253
Factor3	1	2.7258	0.0064
Factor4	1	2.2891	0.0220
Factor5	1	0.4123	0.6818
Factor6	1	0.3000	0.7680

Table 8. The Results of Regression Analysis for the Level of Satisfaction

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > |T|
INTERCEP	1	5.802247	0.17362762	33.418	0.0001
FACTOR1	1	-0.002104	0.00256972	-0.819	0.4135
FACTOR2	1	0.036207	0.02490807	1.454	0.1468
FACTOR3	1	-0.007463	0.00354746	-2.104	0.0360
FACTOR4	1	-0.003948	0.00371294	-1.063	0.2883
FACTOR5	1	-0.014747	0.00406098	-3.631	0.0003
FACTOR6	1	-0.042541	0.03524756	-1.207	0.2282
FIT	1	-0.357686	0.03177937	-11.255	0.0001

Table 9. The Results of Regression Analysis for the Level of Fitness

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > |T|
INTERCEP	1	1.038361	0.26653694	3.896	0.0001
FACTOR1	1	0.002284	0.00401643	0.569	0.5700
FACTOR2	1	0.056462	0.03884520	1.454	0.1469
FACTOR3	1	0.006582	0.00553718	1.189	0.2353
FACTOR4	1	0.017651	0.00573895	3.076	0.0022
FACTOR5	1	0.004280	0.00634620	0.674	0.5004
FACTOR6	1	-0.002082	0.05511318	-0.038	0.9699

Leading and managing human resource in dynamic perspectives

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Keywords
HRM, Motivational theories, Managing Human Resources, organizational management

Abstract

Most of the theories pertaining to Human Resource Management, we follow especially in the developing countries like Pakistan have become time irrelevant. In the fast pace of technological developments, in last about fifty years the human needs, wants, physical and group requirements have tremendously changed. Urge to compete and win over has left the human values far behind. So has been the change in human behavior within the group, organizations and societies. Due to emerging sense of insecurity, individuals feel protected under the umbrella of religion, cultural grouping and compulsory alliances which means group and societal polarization. It means spending most of the energies on rivalries and frictions within the organizations.

In this backdrop, the old theories of tackling the human behaviors appear to have lost their relevance. Examples are of Maslow' Need Theory, Herzberg's Motivation Hygiene Theory, Equity Theory and so on and so forth. Interestingly almost all such theories are still taught as part of the curriculum in countries like Pakistan, India, Bangladesh and Sri Lanka etcetera. We don't ask question, rather try to justify the applicability of all these theories. Contrarily, we find change in human wants, needs and preference of life, so has to be the behaviors. Therefore, there is a need to challenge the viability of these theories in the contemporary settings of technological dominance.

In this backdrop, the paper focuses on analyzing the applicability of these theories in the materialistically dominant human behavior of prevailing times. Accordingly, it suggests a working model for organizational functioning of firms and organizations of developing world which greatly impact the developed world in many ways.

Introduction

Leading and managing human resource are two interwoven terminologies; frequently used in all business and nonbusiness enterprises all over the world. It is basically leading the human resource and managing the human resource. Alternatively, it could be leading the human resource or managing the human resource. This leads to couple of questions to critically understand and analyze leadership and management. Is 'leading' and 'managing' the same phenomenon or it is different from each other? Before that, the question which comes to one's mind is why and what far to lead and manage the people? Is leadership motivating the people to take them to a point or place where they otherwise would not have preferred to go? Else it is making them to do something which they otherwise would have preferred to decline? On the other hand, is managing the people basically means orchestrating their potentials, capabilities and skills for the optimum outputs? Else it is making them disciplined to act in coherence with defined procedures within the respective organizational perspectives? These points need to be analyzed in the present day perspective of organizational functioning and their influences on productiveness or otherwise of enterprises.

Leading and managing are applicable to traditional human resource functions like planning, organizing, directing, training, developing, controlling and coordinating etcetera in one or the other form. For example, 'planning' needs leadership and management attributes without which the process will not be holistic and conclusive. Alternatively, one can say that if you are not a leader or a manager, you cannot plan for any profitable productive activity. Similarly, for 'organizing' and others, it essentially needs characteristics of leadership and management to make them effectively applicable and relevant to the organizational functioning. Looking at these attributes and their applications, one finds them constant; they were like this in the past, are so at present and will continue to be equally relevant in times to come. Then the question arises if so is the state of their relevance as constant factor; why to study and analyze them time and again? Are leadership and management as phenomenal art and empirical science respectively affected by socio-economic growth of societies cum communities, geo-political changes over the times, technological developments and their applications and belief systems (psychological dimensions) of individuals in one or the other form? To understand it in a simpler way; for example, if we bring Frederick W Taylor in today's organizational functioning; will he be as successful as he was in his own time? We can draw many similar examples to understand the relevance of above mentioned four cardinal factors of determining human behavior. So what we infer from the previous discussion is that leading and managing are two different approaches of the same direction basically to attain organizational objectives. One can understand the essence of leading and managing human resource in the dynamic environments of fast paced emerging technologies and changing spectrums of human behaviors therein. Therefore, leading and managing the human resource is as dynamic as functioning of the organizations itself under different conditions and environments.

Research Problem cum Theme, Objectives and Scope of the Study
Research Problem cum Theme

Effective and successful leaders and managers are those who remain relevant to time and environments. In South Asian perspective, especially in developing countries like Pakistan, the human resource as product of traditional society remains closely attached to the past in the application of their experiences and time-tested principles. The human resource in all walks of life tends to remain attached to their customs and ways of functioning and repulsive to any kind of change. Yet we aspire to make progress and develop; not realizing that advancements in quality and quantity is not possible without changing i.e. innovating and discovering cost effective methods of undertaking organizational operations. The two approaches are contradictory and mutually cancelling. There is a need to understand this gap in leading and managing human resource in today's work environments. The environments which are overdriven by rapid technological developments; those provide multiple means of information, knowledge and facilitating analysis. Leadership and management are instinctively dynamic; when they cease to be so, become rather rhetoric practices of beaten track. So how to lead and / or manage human resource under the obtaining highly dynamic environments is the fundamental theme of this review paper.

2.2 Objectives

- To explore leadership and management domains of the present day business world and organizational functioning.
- To determine success factors in leading and managing human resource in the obtaining dynamic environments.
- To develop a model of leadership and management for successful human resource functions in dynamic perspective.

3. Literature Review

3.1 Organizational Management

Integration of Human Resource: An organization's effective management depends on integration of human resource with varying potentials of influence and scale, as argued by (Barney, 1991). The organizations have different cultures and are influenced by different discipline based professionals on conflicting paradigms. A leader aspiring for organization's uplift may tend to foster culture of problem solving, conducive to creativity and risk taking. His choice of using authority for punitive actions and decision making may affect in resolving conflicts and encouraging people to work more efficiently and effectively. (Judge & Piccolo, 2004) recognized two major modes of leaderships which may be transactional and transformational. The Transformational style of leadership is not only the compliance of the followers, it also deals with needs and the values of the followers, and shifts in believe. Further he demonstrates, "the outcome of transforming leadership is an association of joint inspiration and elevation that changes supporters into leaders and may change leaders into moral agents". There are other authors also, who have carried out subjective research on it over past two decades (Yammarino et al., 2005).

3.2 Organizational Management

Impacts of Leadership: (Bass & Riggio, 2006) distinguish leaders by their impact on followers and their characteristics. However, there is little internal processes explanation which may produce characteristics of transformational and transactional leadership. The studies of these writers say that the influence is gained by transformational leaders through their dominating personal characteristics (Bass & Avolio, 1993). Some of the leader have dominating personalities through confidence and conviction in self-righteousness. They focus on creating images, articulating goals, developing motivation and basing arguments on belief systems. According to (Bass & Riggio, 2006), there are four components of transformational leadership which include inspiration, idealization, intellectual stimulation and individualized consideration. Idealization is based on the charisma of behavior of the leader which appeals for admiration and imitation. Trust for both follower and leader is the outcome of ethics and morality which is based on harmony of actions and words. Transformational Leaders are integrated in approach and outlook; as they bring in cohesiveness of team functioning and consistency. Their authenticity and integrity resonates in the entire organizational management where there is not loser; all have win-win position. Managers in any organizational setting may have different modes of using power disregarding win-win situation.

3.3 Organizational Management

Conflict Resolutions: Conflict resolution and management is the challenging tasks for all managers and leader alike. It includes conflict management amongst followers as well as between leader and subordinates. (Alder and Towne, 1990) recognized various possible modes of actions when a leader comes across a conflict situation within the organization which includes negotiations, using authority to mandate change and accepting the status quo which amounts living with the problem. Any approach one may adopt, the results could be any of the three: win-win, win-lose, and lose-lose. Which one is to succeed; depends upon time and environments during which arguments and counter arguments take place. (George, 2003) argued that within the tough and increasingly competitive environment, leadership style of managers in service organization is more important than ever before. According to (Govindarajan and Trimble, 2005), idea of most efficient leadership is attributed towards empowering paradigms. Leader and managers with strategic outlooks are always analytical and solution seekers. That is possible only when one is aware of the changing external influencers. However, productivity is the main criteria of measuring leadership and managerial successes. It includes amounts of work completed and future direction for growth.

4. Dynamic Environments and Related Theories: Aspects of Relevance

4.1 Dynamic Environments: Meaning and Implications: Dynamic environments refer to the state of constant change in activities, surroundings and determinants of work performance by the employees. The question is what constitutes environments being dynamic or what makes the things change rapidly. The answer lies in innovations especially technological discoveries and ways of undertaking works through facilitating means which constitute environments being dynamic. It impacts the decision making process of managers and leaders alike. Decision making under time constraints implies keeping oneself abreast of the happening all the time. It is like one is chasing the events and appreciating the outcomes of various activities. Cost-benefit analysis is a continuous process for decision making under time compressed environments. Dynamic environments put certain demands on managers and leaders of the contemporary organizations. Before going over to conclusions, it appears appropriate to relate dynamic environments with existing well known theories. What lesson, we draw from the literature review predominantly includes transformation and sustainability of organizations under the obtaining environments.

4.2 Dynamic Environments: Application of Past Theories

4.2.1 **Equity Theory**: All vibrant organizations would like competitive spirit within the organizations for quality outputs. Through the competitive environments within the organization, one would like to employ full potentials of the working hands. The question is how it works under dynamic environments? The answer lies in innovative minds making use of technology and technological means for developing models of excellence and competitive outputs. It implies that conventionalists would fall behind though their work is essentially required for sustaining work potentials. This amounts demotivating bulk of the workforce maintaining and sustaining organizations. From the preceding discussion, one infers that probability under dynamic environments equity theory will not work or should not be employed; if at all it is to be put into practice, should be done selectively among similar groups. If the reward system under equity theory is employed across the board, it becomes a double edged weapon; which means cutting more and benefiting less in numbers.

4.2.2 **Motivation Hygiene Theory**: Motivation Hygiene Theory by Herzberg deals with emotional state extending beyond satisfaction and un-satisfaction or dissatisfaction levels. It basically implies that opposite of dissatisfaction is not satisfaction and vice versa. Organizations' workplace conditions like pay and reward systems, work facilitating environments and relationships with subordinates will lead to no dissatisfaction, if these do not enhance satisfaction. Substandard hygiene factors will lead to dissatisfaction contrarily. Under dynamic environments, the information availability creates awareness among the workers. They are socially better connected now due to better communications means. For example, callous attitude on the part of the top management is going to be compared with other competitive firms. The people have become more conscious about working conditions and environments. Under dynamic conditions, higher salaries do not mean satisfaction, not dissatisfaction at the same time. So the theory becomes partially applicable under dynamic environments.

4.2.3 **Maslow's Hierarchy of Needs Theory**: Maslow's hierarchy of needs include physiological, safety, social, esteem, and self-actualization. In the hierarchy, when one need is satisfied, the next becomes dominant. Under dynamic environments, people work under time compression and tense situations in decision making and executions. Whereas they are comfortable with physiological, safety and social needs, the other two i.e. esteem and self-actualization put psychological strains under tough competitive environments. People tend to sleep during journey to their work stations and back. Leaders and managers operate under intense pressures of time constraints. Whereas they have to be quick in decision making, they need to be accurate in appreciation of the situations. This implies that under dynamic environments, leaders and managers need recessions and rotations in quicker cycles. Failing which, they are likely to be psychologically off balance.

4.2.4 **Expectancy Theory**: Basically expectancy theory focuses on the attractiveness of the outcomes and expectations. It is interplay of effort-performance, performance-reward and reward-personal goals relationships. It appears that application of modern technology and facilitating means has jeopardized the relationship of these factors. In effort-performance relationships, it is application of technology which plays predominant role not knowledge only. In performance-reward relationships, it is how unique you are, that matters so that you could create monopolistic environments. Similar is the case of reward-personal goals relationships; there is turbulence in correlations. Hence we can conclude that under dynamic environments, expectancy theory is no more relevant to the leaders and managers.

4.2.5 **Theory X and Theory Y**: These theories by Douglas McGregor introduced likes and dislikes of work by the employees. Under dynamic environments, there is no question of disliking work due to ever increasing needs of living means and competitive obligations; so the theory has become partially redundant. It is the environments which make the people to work to their optimum; therefore, for dislikes of work, managers and leader are to be held accountable. It is the environments which make the people averse; they all, otherwise would like to excel.

5. Demands on Managers and Leaders under Dynamic Environments

Abundance of data cum information from multiple sources and fluid competitive environments put strain on leaders and managers to conclude earlier than competitors to avail opportunities. Just take the example of electronic media channels; the issue of survival is who reports first. The same news after some time becomes redundant and if reported blatantly rather lowers rating of that particular media group. Why it is so? Because of competition i.e. time constraints, if you do not report, someone else will report. So you have to take decision; measure authenticity against timely reporting. If you broadcast and it turns out to be false, you are heading towards lowering your credibility. Similarly, if you decide to delay it for ascertaining authentic source, at the same time, your competitor reports and it turns out to be true, you lost time thus rating. Similar is the case of functioning of organizations under dynamic environments. Managers and leaders have to make objective decisions in correct time and rationale dimensions. Under such environments, leaders and managers need to have attributes of five fundamental areas. These areas include 'Knowledge cum Awareness', 'Relevance cum Sustenance', 'Interpersonal Skills cum Management', 'Self Confidence cum Trust' and 'Prioritization cum Time Management'. The catch word for these five fundamentals is 'KRISP'; so we say that dynamic environments need 'KRISP' managers and leader to manage and lead the organizations and work functions.

5.1 Knowledge cum Awareness ('K' of 'KRISP')

Fast developing, innovating and rapidly changing technology has made the organizational functioning an interconnected work activity. Functioning of organizations has internal and external influencers which impact performance of managers and leaders. For example, geopolitics in impending environments, greatly impacts the functioning of organizations especially in MNCs. Security dynamics is part of dynamic environments in countries like Pakistan, Afghanistan, India, Iran, Sri Lanka and alike. Therefore, managers and leaders in dynamic environments need to be abreast of happening of the business world as well as geo-security, geo-politics and geo-economics. Therefore, it is not only professional knowledge of the concerned field which makes him successful, rather its wholeness in mutually impacting environments of organizational functioning.

5.2 Relevance cum Sustenance ('R' of 'KRISP')

Leaders and managers under dynamic environments have to remain relevant to the passing events and sustain changes. The world is changing faster than ever before; new realities in turbulence of business and manufacturing occur too frequently. Leaders and managers of successful organizational functioning are keeping in steps with the changing world. For example; Chinese initiative of 'One Belt One Road' is revolutionary in nature. The countries like Pakistan are passing in difficult phase of their history; the survival lies in making your organizational functioning relevant to the emerging realities and business environments emerging out of project like CPEC (China Pakistan Economic Corridor). Therefore, under dynamic environments, leaders and managers have to retain relevance to the surroundings and flexibility in planning and execution for probable changes which at times may be forced upon due to fluidity of situations.

5.3 Interpersonal Skills cum Management ('I' of 'KRISP')

Under dynamic environments, time is the deciding factor; managers and leaders have very less for interpersonal relations. How to cope up with pressing demand of spending time with working hand is a challenge for leaders and manager alike. Proficient leadership is how leaders mobilize their working hands cohesively for the attainment of shared goals. It needs time for developing relationships through interpersonal skills which definitely contribute in organizational successes. Spending time with working hands is not chatting with them at Coffee Machines, it is how to make them proficient in their respective posts to have multiplying impacts. It is rather to build comradeship and sense of community within the workplace. Interpersonal relationship is to listen to their issues and engage them to feel that they are valued. Interpersonal skills come under the category of soft skills which basically involves communication and interactions. Despite time compressions, leaders and managers need well motivated and energetic working hand which is possible only through interpersonal skills for problem-solving and pragmatic decision-making through listening and understanding practical problems.

5.4 Self-Confidence cum Trust ('S' of 'KRISP')

Self-confidence provides roots to the flourishing tree of leadership. It is built upon knowledge, awareness, and faith of efforts and invisible hands of nature. A self-confident leader would build trust on the people around him in the organization. Leadership without self-confidence is like growing a tree in the sand which has shaky roots. Lack of confidence leads to indecisiveness and stagnation or taking action when time has passed. Modern technology provides a base for broadening knowledge base for building self-confidence and trust. Technological means have become resource and force multiplier in the recent times. It depends how efficient are you in its application for obtaining information, processing data, analysis and drawing conclusions for decision making. Either you as a leader or a manager do it by yourself or employ the staff to operate it for you. Keeping staff does not work all the times, so option left is to learn it how to operate and keep updating your knowledge for new additions or facilities.

5.5 Prioritization cum Time Management ('P' of 'KRISP')

Present day lives of managers and leaders have become extremely busy. A manager who gets entangled in routine activities which could be easily delegated for others to take care, runs short of time for innovative assignments. Prioritization provides solution to time constraints for focused attention to the essentials which are critical to attain organizational objectives. It is not possible to give due attention to all matters of the organization personally by the managers and leaders. Those who strive for doing everything by themselves, in fact spread their time effort rather dissipate than concentrating or focusing attention on pivots or the most essentials. Leaders and managers, under dynamic environments, need to take care of the critical nodal points of the organizational functioning.

References

Adler, R. and Towne, N. (1990). *Looking out/Looking In*. Columbia: Harcourt College Publishers, 416.

Barney, J. (1991). *Firm resources and sustained competitive advantage*. Texas: Sage Publisher, 99-120.

Bass, B. M., & Avolio, B. J. (1993). Transformational leadership: A response to critiques. In M. M. Chemers & R. Ayman (Eds.), *Leadership theory and research: Perspectives and directions*. San Diego, CA: Academic Press, 49–80.

Bass, M. and Riggio, E. (2006). *Transformational Leadership*. 2nd ed. Mahwah. NJ: Lawrence Erlbaum Associates, 282.

George, B. (2003). *Authentic Leadership: Rediscovering the Secrets to Creating Lasting Value,* 1st ed. San Francisco: Jossey-Bass, 240.

Govindarajan, V., Trimble, C. (2005). Ten Rules for Strategic Innovators: From Idea to Execution. Boston, MA: Harvard Business School Press, 288.

Judge, T. and Piccolo, R. (2004). *Transformational and Transactional Leadership: A Meta Analytical Test of Their Relative Validity.* Florida: The American Psychological Association, 755-768.

Yammarino, F., Dionne, S., Chun, J. and Dansereau, F. (2005). Leadership and Levels of Analysis: A State of the Science Review. *The Leadership Quarterly*, 16 (6), 879-919.

Appendix- I

Essentials of Management and Leadership under Dynamic Environments: The five fundamentals of management and leadership under dynamic environments are capsulated in Figure-1 given below.

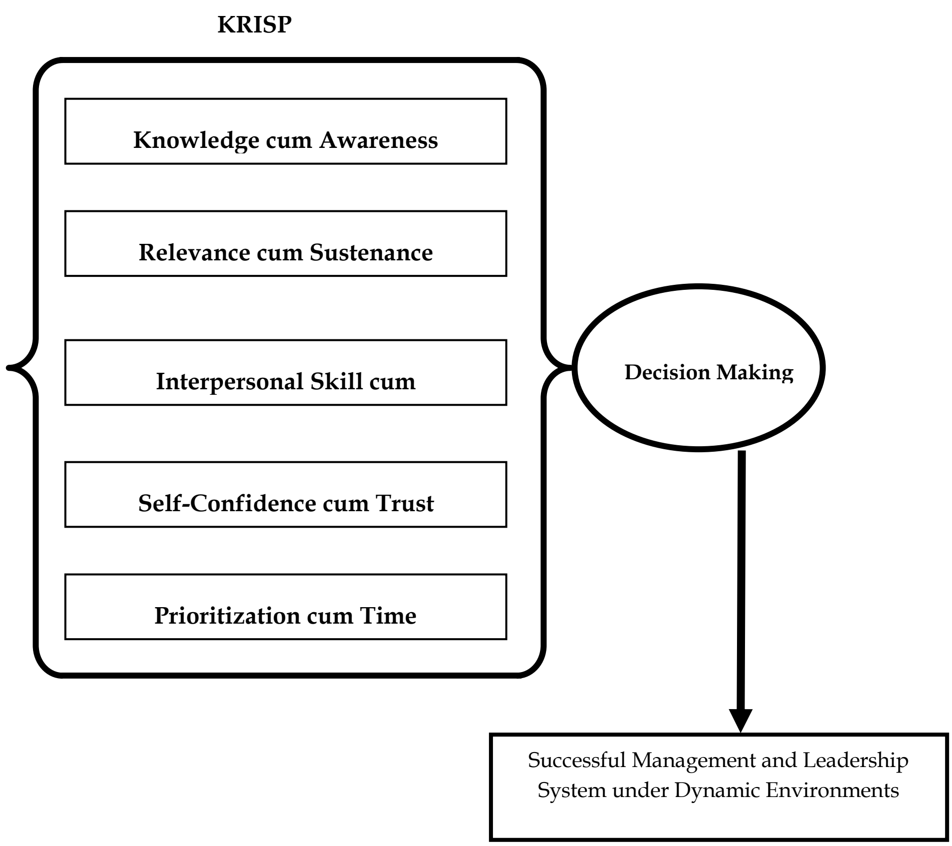

Figure-1

The Euro common currency: Ties that bind

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Key words
Euro, Currency, European Community

Abstract

The euro common currency project is a currency union without a fiscal union, a banking union, or a political union. Its founding documents prohibit bailouts of member states. For banks, there is no lender of last resort, and there is no common system of bank deposit insurance. The common currency now used by 19 member states of the European Community was devised as a political device to ease trading among member states, to promote economic growth through increasing integration, and to promote peace. Most of the leaders present at the EU founding hoped for an eventual political union, a banking union, and a fiscal union, but the general public has not yet been willing to sacrifice their national sovereignty to create such institutions. With each recession or financial crisis, the euro project is threatened. The policy question now is how to determine the proper role for the euro as Europe sets a path toward sustainable and peaceful economic growth in a world of globalization and nationalist politics.

1. Introduction

Eurozone monetary policy is consolidated at the European Central Bank (ECB), but fiscal policy resides with each member state. Very recently steps toward a banking union have been made by starting to regulate centrally the largest banks. The Eurozone has had the euro in place for more than 15 years and has weathered the cycle of growth and recession. Austerity measures imposed on the southern tier are causing economic distress, while the northern ties nations are comfortable. It is timely that we should assess the success and the future of the euro.

The current Eurozone project is the fourth attempt in Europe for a common currency. In 1838 the German Monetary Union was formed by the Northern German Confederation, the Kingdom of Bavaria, and the Austro-Hungarian empire. It eventually failed during World War I. The Latin Monetary Union was formed in 1865 by Belgium, France, Greece, Italy, and Switzerland, and it broke down in 1926. The Scandinavian Monetary Union was formed in 1872 by Denmark, Sweden, and Norway. It failed at the beginning of World War I in 1914. (See Chorafas, 2013a, pp 176-180). Only time will tell the fate of the euro.

Successful monetary unions require parallel fiscal unions and strong fiscal discipline. The Maastricht Treaty (1992) did not include such provisions. A side agreement, The Stability and Growth Pact (1997), specified required fiscal standards for admission to the European Community (EC). Each member was to hold their annual inflation rate to 3%, to limit annual fiscal deficits to 3% of GDP, and to keep their national debt below 60% of GDP. Very few nations have achieved these standards without "creative accounting".

2. The Evolution of Nation States and Central Banking

Throughout history a series of monarchs, emperors, and kings have fought to capture and hold territory. For the past 10,000 years until the twentieth century, strong rulers amassed great armies, attacked their enemies, and captured their people, land, animals and other forms of wealth. Defeated peoples were taken captive or forced to pay taxes to the ruler. Rulers used the taxes and the labor of slaves to enrich their empires and to build up military strength for future excursions.

This process typically continued until a new threat emerged to wrest control from the incumbent. Within Europe, the Romans, Germanic tribes, Saxons, Austrians, and others have struggled to assemble empires and to master trading over great distances. In some cases, families held power for many generations. Mercantilist nations sought to build wealth and power through colonization of distant lands with valuable resources. Trade in gold, furs, cotton, tobacco and other luxuries lifted the standard of living for a growing class of merchants and artisans. That process has led to an organized system of nation states to govern people and territory. National borders are mostly well established. Now we are at the stage of treaties among nations and potential combinations of nations to form a more perfect bond.

By the fifteenth century, Europeans explored and dominated the world while establishing massive trading networks and market mechanisms. These massive trading and production networks became possible only after Europeans achieved stable nation states that could regulate markets and protect their interests with strong Naval forces in remote regions. Each nation state controlled its monetary and fiscal policy, and it lived with the consequences of its actions.

As nations developed, they formed alliances with other nations for common purposes, such as to promote trade or to reduce the chance of war. The early EU leaders saw the common currency as a step toward fiscal union and banking union that would promote economic growth and peace. Proper governance of money remains an unsolved mystery in the eurozone.

3. The End of Fixed Exchange Rates

At the end of World War II, the major industrial nations met in conference at Bretton Woods to plan a transition to civilian life. They established the International Monetary Fund (IMF), the World Bank, and the General Agreement on Tariffs and Trade. In addition, a system of fixed exchange rates was established under which each nation pledged to keep its currency within a stated range of other currencies - by buying or selling their currency as necessary. After a few years this system became a burden to some nations, because their fiscal policies differed. Until 1971, the US stood ready to redeem dollars for silver, but that policy was terminated by President Nixon. That spelled the end of the system of fixed exchange rates, and since then the world currencies have been valued by market forces. Not surprisingly, some nations have attempted to guide the value of their currency to smooth out fluctuations or to gain competitive advantage for their exports.

The new era of flexible exchange rates made international trade more costly for nations that ran budget deficits and had higher inflation. In the 1970s European leaders began discussions of a common currency that would eliminate cross-border exchange rate volatility within Europe and facilitate trade and investment. The northern tier states, led by Germany, feared moral hazard and wanted strict limits on national debts and deficits. The southern tier states, led by France, preferred a more forgiving structure that could assist nations in difficulty – potentially with cash transfers from the other states. Some in the southern tier of Europe would like to see "Eurobonds" issued and guaranteed by the EU (and the possibility of debt forgiveness), but the northern tier states, especially Germany, oppose that idea as a promotion of moral hazard. (See Blyth).

4. Basic Requirements for an Embedded Common Currency Regime

Robert Mundell pointed out that in a common currency area, exchange rate adjustments would not be available to address external economic shocks. In case of an external shock, internal adjustments would be needed to stabilize the national economies. These could take the form of austerity measures or transfers from other member states. If such measures were not forthcoming, then national economies could not restore equilibrium, and the people and firms in the lagging economies would suffer high unemployment, falling incomes, and reduced public services. With separate currencies, affected nations could devalue their currency, and that would help to increase exports, reduce imports, increase employment, and improve the balance of payments. (See Mundell).

Additional factors that would facilitate a rebalancing of weakened economies can be free mobility of labor and capital across borders. (See Mundell, 1971).

Mundell and others have developed the theory of an "optimal currency area". No actual common currency area in history has met all the theoretical requirements, but a review of these requirements can shed light on the current problems in the eurozone and the prospects for the euro in the future. A group of nations sharing a common currency must have in place similar institutions that allow a single nation to maintain a healthy economy. Foremost is a political union that can translate the will of the people into laws administered by a legitimate government. In modern states, since the days of the Enlightenment that has meant some form of democracy. If a group of nations come together to adopt a common currency, the political union that would be necessary would involve a sacrifice of sovereignty to some extent. Member states would need to become subject to political decisions made by others. Another requirement of a successful common currency area is a banking union, which must include a central bank as a lender of last resort, supervision of banks, resolution authority over failed banks, and a system of deposit insurance. Such a banking union could lead to cash transfers to nations in difficulty, which the more wealthy and stable nations may not accept. And finally a fiscal union is required for a successful common currency, which requires each nation to balance its budget or limiting deficits, and control its external debt. A fiscal union may allow the issuance of common debt instruments backed by all member states. Such a set of institutions limits the options of member states and reduces their sovereignty. (See McNamara, pp 21-32).

When the economy of each member state is healthy and in balance, the common currency area works well. It is in times of stress or crisis that the common currency area needs the political union, the banking union, and the fiscal union to be in place and functioning smoothly. In 2000-2007 the EU enjoyed a healthy economy. Once the US subprime mortgage crisis emerged in 2007, it lead to a worldwide financial crisis in 2008, including the Greek debt crisis and the banking crisis in Spain, Italy and Italy. These events exposed the limitations of EU institutions. To some extent the EU authorities crafted policy on the fly, in consultation Germany and France, and with some rulings from the courts. An important lesson to be learned here is that when forming a common currency area, necessary institutions and arrangements must be put in place in advance.

5. The Beginnings of a European Common Currency

In 1951 the European Coal and Steel Community was formed as the first effort to achieve a "common market" in Europe. The Treaty of Rome in 1957 established the European Economic Community. The Common Agriculture Policy evolved in the 1960s. (See Matthijs and Blyth and James).

During the 1980s the major European nations used the European Exchange Rate Mechanism ("snake") to manage exchange rates among nations. It became increasingly more difficult for some nations to abide by the agreement. The value of the US dollar declined in 1977-78 and that led Europeans to look for an alternative to the dollar as a reserve currency. This uncertainty about the value of the dollar led to the creation of the European Monetary System in 1979. (see James, p 10).

Political events also prompted European action. In 1989 the Berlin Wall fell, leading to the reunification of Germany. European leaders formed the Economic and Monetary Union (EMU) to seek "an ever closer union", and to present a united European front to the forces of globalization that were rising around the world. European leaders also believed that this "ever closer union" would promote trade and peace, after so many centuries of war and jockeying for power and land in Europe. The result was the Delors Report in 1989. This report by the European Commission led directly to the Treaty of Maastricht in 1991 and the adoption of the principle of "the free movement of capital, goods, and people". The euro was adopted as an electronic common currency in 1999, and euro currency and coins began circulating in 2002. (see Matthijs and Blyth, pp 2-6).

6. The Missing Political Union

The European Parliament has been largely excluded from the decision-making process related to the euro. Monetary policy is vested in the ECB, and fiscal policy is set by each nation with EU guidelines, which are often ignored. Fiscal guidelines have been set by the European Commission with little input from the European Parliament (see Schmidt, pp 96-114). Many important decisions are made by bureaucrats, and formal rule changes must be made by treaty, which require unanimous consent of the 19 nations. Some people in Europe have been frustrated by the power vested in the EU bureaucracy, and this frustration has contributed to exit or populist movements in the UK, Spain, Greece, Scotland, Poland, and others.

When the European sovereign debt crisis erupted in 2010, technicians rather than elected representatives, established the European Financial Stability Facility (2010), the European Stability Mechanism (2013), and a limited banking union (2013). Throughout Europe the average citizen has not participated in these actions, and unfortunately there is a huge divide between the goals and methods desired by the people in the core northern tier nations (Germany), and those in the southern periphery nations (France, Italy, Spain, Portugal, Greece). One suggested reform, for example, is for the European Parliament to elect the President of the European Commission. (See Schmidt, pp 94-96).

7. The Euro in Times of Financial Crisis

Following several financial crises, central bankers and the Bank for International Settlements (BIS) have worked to regulate banks and encourage increased bank capital. Bank capital standards have been tightened and "risk adjusted". This means that for commercial banks sovereign debt of any member nation required no capital banking, while mortgage-backed securities required some backing, and whole loans required the most backing. Clearly the credit risk of nations fluctuates over time, but political considerations prevented bank capital standards from reflecting these differences. So, over many years, banks in Europe have bought higher yielding bonds issued by southern tier nations to increase their portfolio yield. This policy led to a large capital flow from banks in the northern tier states to governments in the southern tier ("target funds"). When a southern tier nation threatens to default, the safety and soundness of the large commercial banks across the Eurozone is at risk. (See Sinn, pp. 38-80).

A common currency across nations with a single central bank controlling monetary policy necessarily imposes the same monetary policy on all participating nations. If nations adopt differing fiscal policies, then the performance of their economies will differ, and coordination of fiscal and monetary policy will not be achieved. The absence of a banking union exposes the higher risks and interest rates in southern tier banks, so bank deposits flow to northern tier banks. As a result, the common monetary policy will serve some nations to the detriment of others. This result has emerged in the Eurozone today, as the euro common currency has driven nations apart rather than producing convergence.

8. The Strong Influence of Germany

In 1990 West Germany and East Germany embarked on a massive reunification effort. A fundamental principle in the German Basic Law is parity of living standards across the federal states. To achieve this goal, Germany imposed a special income tax and transferred more than one trillion euros from west to east over ten years. In some cases, public facilities in the east greatly exceed the quality of facilities in the west. As a result, within Germany increasing public opposition to the transfers has occurred. This experience has turned German public opinion against public transfers and has made people weary of moral hazard. This same feeling is applied to the southern tier nations as they need assistance to cope with unemployment above 25%, rising taxes, cuts in pensions, and deteriorating government services – all worsened by the austerity policies required by the "troika" of the ECB, the European Commission, and the IMF. (See Newman, pp. 117-130).

9. The Subprime Mortgage Crisis

The US was faced with a crisis in the subprime mortgage market in 2007. That US crisis directly led to the worldwide recession and banking crisis in Europe in 2008. The subprime mortgage crisis resulted from poor mortgage policy since 1992 which required the housing agencies, Federal National Mortgage Association (Fannie Mae) and Federal Home Loan Mortgage Association (Freddie Mac), to buy an increasing proportion of mortgages issued to lower income home buyers. The target proportion of mortgages made to lower income buyers was 26% in 1992, and by 2005 the target was 55%. Fannie and Freddie could achieve their assigned targets only by reducing lending standards, which they did. By 2005 many residential mortgages were being issued with no down payment and no verification of income. There was rampant speculation in some real estate markets, such as Florida and Las Vegas, because developers could use the prevailing very low interest rates and adjustable rate mortgages to attract new buyers. Excess demand drove real estate prices to record highs, attracting additional buyers. Many of these "subprime" mortgages eventually defaulted. Because almost all agency mortgages are pledged as collateral within mortgage-backed securities (MBS), the investors who owned MBS noted the rising mortgage delinquencies in 2007 and started selling, causing MBS market prices to fall. Although the MBS were not obligations of the US government, it was quickly decided in December 2008 that the agency MBS would be guaranteed by the US government, and the agencies were brought under conservatorship of the government, where they remain today. The federal government injected $184 billion into these agencies in exchange for preferred stock. The agencies have now returned to profitability, and more than that amount has been repaid to the Treasury in the form of dividends.

10. The European Sovereign Debt Crisis: Testing the Euro

The US sub-prime mortgage crisis spread worldwide, leading to a European sovereign debt crisis in 2009-2012. This crisis in the Eurozone exposed the faults of a common currency and common monetary policy. Greece came close to defaulting on its bonds in 2010 (and again in 2012), and the crisis could have led Greece to exit the Eurozone. Banking systems of Ireland, Spain, Portugal, and Italy were at risk. EU rules did not allow direct bailouts, and extraordinary measures were taken to avoid a collapse of the euro or the exit of a member nation (Greece). Several nations in the southern tier were in recession with unemployment rates above 25%. Meanwhile nations in the northern tier were enjoying relatively strong economic growth and full employment. Because of the common currency, none of these nations could use devaluation to balance their economy.

In a system of flexible exchange rates, devaluation can help restore balance and equilibrium. A nation in recession can devalue its currency relative to the currencies of its trading partners. That boosts productivity and makes the weak nation's goods cheaper to others, increasing exports. The devaluation also reduces imports by making them more expensive at home. The resulting improvement in the trade balance adds to GDP and helps the weak nation restore economic performance and jobs.

Because devaluation is not possible within a common currency area, a weak nation must undergo an "internal devaluation" by cutting government spending, including wages and pensions, and increasing taxes. This policy of austerity has been required of Greece by the "troika", consisting of the European Central Bank, the European Commission, and the International Monetary Fund, in exchange for financial assistance. Greece remains in recession with unemployment above 25%.

To the extent that austerity policies weaken the economies of already weakened nations, they encourage skilled workers to depart for better opportunities elsewhere. This effect leaves fewer taxpayers to shoulder the tax burden at home. Austerity policies also promote relaxed local regulations, as nations compete to attract industry and investment. (See Blyth, pp. 178-226).

The austerity policy forced by the troika has been criticized as counterproductive and destructive. (See Stiglitz, pp 177-213 and Blyth, pp. 51-93). The alternative to austerity could be massive government deficit spending financed by Eurobonds, and debt forgiveness. In addition, a move away from austerity could include a broadening of the ECB mandate from only controlling inflation to also achieving economic growth and full employment. The northern tier states dominate the EU institutions and strongly resist such policies.

11. The European Central Bank and Outright Monetary Transactions (OMT)

Mario Draghi, president of the European Central Bank (ECB), announced in September of 2012 that the ECB would stand ready to purchase "unlimited quantities" of European sovereign bonds in the secondary market. That was soon after his statement of July 2012 that he would do "whatever it takes" to save the euro. This new policy, called "Outright Monetary Transactions", would be subject to certain conditions for nations in financial crisis. OMT appears to violate the Lisbon Treaty and the Fiscal Compact, and it is strongly opposed by German and other officials. Any such bond buying was to be "sterilized", meaning that the ECB would borrow the funds from the banking system to execute bond purchases, so the money supply would not be increased. This strategy was designed to satisfy those concerned about potential inflation. Concerns about moral hazard remain, as sovereign nations would face reduced pressure to control their deficits and debt. (See Chorafas, 2013, pp. 119-143).

The ECB and southern tier nations remain intent on propping up the financial system and postponing the day of reckoning when budgets are balanced and debt is under control. Some seem to hope for eventual forgiveness of debt or a period of robust growth that will restore solid financial strength. The northern tier nations that would have to finance such relief are in no mood to cooperate with such an outcome.

12. Alternative Solutions of the European Financial Crisis

Among the most powerful leaders of the EU institutions, the majority viewed the financial crisis in the southern tier nations as largely a result of excessive government spending, overly generous pensions, local corruption, and ineffective collection of taxes. These same leaders, dominated by Germany, feared moral hazard and were strongly opposed to debt forgiveness or cash transfers to nations in distress. The solutions to the financial crisis implemented by the troika involved creative ways to extend credit while imposing stringent austerity measures in the southern tier. The troika insisted on wage cuts for government workers, pension cuts, increased taxes, and reduced public spending. These measures deepened and extended the recessions in the southern tier, where there was no possibility to use monetary policy to restore equilibrium. There has been considerable debate as to whether such austerity measures can work or are appropriate in such a situation. (See Blyth, pp. 51-93). The stark reality is that continuing problems in the southern tier nations are high unemployment, falling or stagnant real growth, and continuing deficits. There is little evidence of a congruence among the nations of the Eurozone to achieve an "ever closer union".

As previously stated, a sound economy for a nation or for a region depends on effective coordination of monetary policy, fiscal policy, and trade policy. Within the Eurozone, a common monetary policy has been adopted with the establishment of the European Central Bank. Although the Stability and Growth Pact set fiscal goals for deficits and debt, these goals have not been achieved by some nations – mostly those in the southern tier. Possibly the only way to achieve these fiscal goals is through a fiscal union. Such a mechanism would require a supervisory board with authority over taxation and expenditure matters within each member state. Traditionally, elected politicians have made these decisions. Usually the forms of taxation and exemptions, spending categories and exceptions, timing of payments, and the use of creating financing very in each nation. For a supervisory board to have full control of these issues would restrict the powers of elected politicians and invade the sovereignty of member states. It seems that the member states could never agree to such controls over their current powers. If so, then a fiscal union cannot be successfully implemented. The next possibility would be a political union.

A political union would be a mechanism to jointly decide on matters of fiscal and monetary policies. Such a mechanism would retain the decision powers of elected representatives, but it would make each member state subject to majority rule in some form. The experience of Europeans since 1999 with the European Commission in Brussels indicates little public support for strengthening the powers of agencies beyond national borders. For example, public referendums on the Lisbon Treaty failed in France, Holland, and Ireland until references to "a closer political union" were removed. (See Chorafas, 2013a, pp. 171-194).

13. Conclusion

If none of these steps can be successfully implemented to stabilize the euro, then we will need to consider how the euro regime might end. There always will be financial crises, and each crisis seems to call for emergency lending, bank bailouts, drastic central bank policy, or even cash transfers or debt forgiveness. Each financial crisis is different, and each one places new stress on the Eurozone institutions and ability to restore calm to the markets. We may eventually arrive at the point where an end of the euro is the best choice. There are several ways this result may play out.

After the Greek brush with exiting the Eurozone in 2010-2012, it seems likely that one or more weakened states might exit, leaving most members and the euro in place. Issues of redenomination of debt would have to be negotiated. An alternative could be that one or a few healthy members, such as Germany, might grow weary of periodic crises and decide they are better off with their own currency than with the euro. A third scenario could be that the Eurozone splits into two regimes with a "northern tier euro" and a "southern tier euro". Within each region, internal and harmonious fiscal policy might be much easier to achieve.

While we cannot know what the future holds for the euro, the repeated stress of financial crises, bailouts, and "whatever it takes" policy may force a new direction in the Eurozone.

References

Bernanke, Ben S., 2015. The Courage to Act: A Memoir of a Crisis and its Aftermath, W. W. Norton & Company, New York.

Blyth, Mark, 2015. Austerity, The History of a Dangerous Idea, Oxford University Press, Oxford.

Blyth, Mark and Simon Tilford, 2018. "How the Eurozone Might Split", Council on Foreign Relations, https://www.foreignaffairs.com.articles/europe/2018-01-11/how-eurozonw-might-split

Brunnermeier, M. K., Harold James, and Jean-Pierre Landau, 2016. The Euro and the Battle of Ideas, Princeton University Press, Princeton.

Chorafas, D. N. 2013a. Breaking Up the Euro: The End of a Common Currency, Palgrave Macmillan, New York.

Chorafas, D. N., 2013b. The Changing Role of Central Banks, Palgrave Macmillan, New York.

Chorafas, D. N., 2009. Globalization's Limits: Conflicting National Interests in Trade and Finance, Gower Publishing, Surrey.

Cramme, Olaf and Sara B. Hobolt, 2015. Democratic Politics in a European Union Under Stress, Oxford University Press, Oxford.

De Rugy, Veronique, 2013. Is Austerity the Answer to Europe's Crisis?", Cato Journal, vol 33, no 2, Spring/Summer 2013, Cato Institute, Washington.

James, Harold. (2012) Making the European Monetary Union, Harvard University Press, Cambridge.

Gombrich, E. H., 2008. A Little History of the World, Yale University Press, New Haven.

Matthijs, Matthias and Mark Blyth, editors. 2015. The Future of the Euro, Oxford University Press, Oxford.

McNamara, Kathleen R., 2015, "The Forgotten Problem of Embeddedness", in The Future of the Euro, Matthijs and Blyth, editors, Oxford University Press, Oxford.

Mundell, Robert A., 1961. "A Theory of Optimum Currency Areas", American Economic Review, vol 51, pp 509-517.

Mundell, Robert A., 1971. Monetary Theory, Goodyear Publishing, Santa Monica.

Newman, Abraham, 2015, "The Reluctant Leader: Germany's Euro Experience and the Long Shadow of Reunification", in The Future of the Euro, Matthijs and Blyth, editors, Oxford University Press, Oxford.

Nordvig, Jens. The Fall of the Euro. 2014. McGraw Hill Education, New York.

Reinhart, Carmen M. and Kenneth S. Rogoff, 2009. This Time is Different: Eight Centuries of Financial Folly, Princeton University Press, Princeton.

Schmidt, Vivien A., 2015. "The Forgotten Problem of Democratic Legitimacy", in The Future of the Euro, Matthijs and Blyth, editors, Oxford University Press, Oxford.

Sinn, Hans-Werner, 2014. The Euro Trap: On Bursting Bubbles, Budgets, and Beliefs, Oxford University Press, Oxford.

Stiglitz, Joseph. E , 2016. The Euro: How A Common Currency Threatens the Future of Europe, W. W. Norton & Company, New York.

The relationship between the development of the financial sector and economic growth - a regional approach

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Keywords
Financial sector development, economic growth, regional development, financialization

Abstract
The intense debate on the impact of the growing financial sector on the economy has been ongoing for two decades. The debaters concentrate on showing these dependencies in relation to the economies of individual countries as a whole while completely ignoring the regional perspective. Meanwhile, the results of analyses at the regional level may completely differ from the results at the country level. A niche area was identified in work on the relations between the development of the financial sector and economic growth: the lack of a regional approach. In the manuscript, regional research results using the example of Polish regions, and further possibilities of using research from a regional perspective are presented. The results obtained at the regional level lead to different conclusions than those at the national level. National surveys indicate that Poland is a country in which the level of development of the financial sector is optimal. Regional research provides knowledge of Poland's regions, where further development of the financial sector remains beneficial. The presented methodology can also be applied to the analysis of regions of other countries, and the present research constitutes the verification of research tools for international analyses.

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1. Introduction

Economic growth is one of the ultimate goals of any economic system. The debate on the impact of the growing financial sector (this phenomenon is often called financialization (Epstein 2005)) has been going on for two decades. Previous research indicates a linear, growing dependence between the development of the financial sector and economic growth and development (Levine 1997, Caprio, Honohan 2001, Lopez, Spiegel 2002), as well as an existing dependence in the reverse form of the letter "U", a parabola with arms pointing down (Arcand et al. 2015, Cecchetti, Kharroubi 2012, Pagano 2014). The results of research carried out by the International Monetary Fund (Sahay R. et al. 2015) have placed Poland almost at the top of this parabola, which means that there is an optimal level of development of the financial sector in that country.

The research carried out to date focuses on showing the relationship between the development of the financial sector and economic growth and development in relation to the economies of individual countries as a whole while completely ignoring regional aspects. Meanwhile, the results of analyses at the regional level may completely differ from the results of those at the country level. In the presented research, this has identified a niche area regarding the relationships between the development of the financial sector and economic growth: the lack of a regional approach.

The aim of the study is to determine the information capacity of the study of dependencies between the development of the financial sector and economic growth in individual regions of the country. For the purposes of this study, a research hypothesis was put forward that "the study of dependencies between the development of the financial sector and economic growth from a regional perspective allows for the creation of an accurate picture of the relationships between these areas." Researched relationships between the development of the financial sector and economic growth at the regional level have been carried out using the example of Polish regions. The presented methodology can also be applied to the analysis of regions of countries other than Poland, and this presented research is a verification of research tools for international analyses.

The rest of this article is organized as follows. Section 2 provides an overview of the literature on the main results of empirical research into the relationship between financial sector development and economic growth. Section 3 describes a proposal methodology that can be used to analyse the relationship between financial sector development and economic growth at the regional level. The types of data taken into account and the approach adopted are discussed here. Section 4 describes the results of empirical research obtained using the proposed methodology for individual regions of Poland. The main findings are reiterated in Section 4, where the results obtained are compared with those of previous studies conducted at the national level and are discussed. This part also includes conclusions on the usefulness of the proposed methodology. Section 5 discusses research limitations and directions for further research.

2. Literature review

The relationship between the development of the financial sector and economic growth and development has been the subject of research by many authors. In these studies, two stages can be distinguished: the first stage, usually covering the period from the 1970s or 1980s to 2006 or 2007, comprise studies wherein there is usually a positive relationship between the development of the financial sector and economic growth; the second stage, in which a longer period of time was used for analysis, also sometimes spans the 1970s and 1980s to the present. The second stage of research also takes into account the period of the global financial crisis and usually finds that the growth of the financial sector is beneficial to the economy only to a certain extent, as the long-term disadvantages outweigh the advantages resulting from the development of the financial sector.

Analyses did not present a uniform view of the development of the financial sector, and it was very differently perceived and measured. As for measures of financial development, the most common were the ratio of bank deposits to GDP, share market value to GDP, size of M2-type monetary aggregates or similar to GDP (Sawyer 2014). Only two measures were used in research in the financial development of OECD countries: added value created by the financial sector to the value added generated by the entire economy, and average employment in the financial sector to employment in the entire economy (Assa 2012). Other measures used were the following relations: mortgage loans to GDP, private debt to GDP (Jorda et al. 2014), private debt to GDP in relation to total debt of economic entities in relation to consumption, share of financial assets in total assets and profits from operations in relation to the total profits of non-financial enterprises, and the ratio of corporate investment to the level of their total indebtedness and in relation to total profits (Gołębiowski, Szczepankowski 2015, 204). In addition, the following measures were used: the number of non-bank financial institutions in relation to the number of financial institutions, banks' earnings achieved through other channels than the spread in credit and deposit rates, banks' willingness to extend loans to households and enterprises, exchange rate volatility, the size of net capital flows in relation to GDP, directions of capital flow, and frequency of financial crises (Stockhammer 2010).

Research during the first stage pointed to the financial sector as the driving force of the economy. According to the theory of effective markets and Tobin's Q theory (1977), the increase in importance of financial markets should favour the increase of efficiency in other sectors of the economy. It was believed that a well-functioning financial system is indispensable for economic development; moreover, it supports the development processes and efficiency of other sectors. This was in line with the views expressed by Friedman (1953), who considered economic freedom as a superior goal and saw nothing wrong in increasing the importance of financial markets. Levin (1997, 2005) research conclusion emphasized the strong positive relationship between the development of the financial system and long-term economic growth. Similar conclusions were reached by Caprio and Honohan (2001), Lopez and Spiegel (2002), Caporale (2009) and Bijlsma and Dubovik (2014). Extensive research on this subject using a meta-analysis was conducted by Arestis, Chortareas and Magkonis (2014), and their results indicated a statistically significant positive relationship between the degree of development of the financial sector and economic growth and development (Arestis, Chortareas and Magkonis 2014, 10-12). A review of empirical research that proves the positive impact of the financial sector on economic growth and development is found in Moshirian's work (2011).

The crisis in the financial markets (2008) has changed the look of the effects of the rapid development of the financial sector on the economy and has shown how unstable were the foundations of economic growth in previous decades. Economists who criticized the excessive development of finance began to speak out. Minsky (1982) had already noticed that the easier access to credit facilitates increasing the cyclicality of the economy. In the conducted research, we appealed to Minsky and stressed that the effects of the financial sector growth were negative for the economy; they included increasing the susceptibility of the economy to financial crises, increasing financial investments at the expense of material investments, social inequalities, excessive indebtedness, etc. The financial cycles and instability of the economy that they cause have been examined by Borio (2013), Borio et al. (2016), and Borio, Lombardi and Zampolli (2017). Rousseau and Wachtel (2011) noted that the positive correlation between the development of the financial sector and economic growth is not as strong as it was in the 1960s-1990s. The rapid growth of the financial sector and its instability that may result in negative effects to the economy were examined by Beck, Degryse and Kneer (2014). The fact that the development of the financial sector may be disadvantageous for the economy during a short period of time and favourable in the long-term has been noted by Beck et al. (2003, 2014) and Loayza and Ranciere (2005).

One of the most well-known studies of the relationship between the development of the financial sector and growth and economic development was carried out by the International Monetary Fund and showed that this relationship takes the shape of an inverted letter "U", meaning a parabola with arms pointing down (Sahay R. et al. 2015). This means that the development of the financial sector is beneficial to the economy, but only to some extent. After exceeding a certain limit of the size of the financial sector, its further growth results in negative effects for the economy. Arcand, Berkes and Panizza (2015), Cecchetti and Kharroubi (2012), Pagano and Pica (2011), Pagano (2014), and Rioja and Valev (2004) came to similar conclusions. Rioja and Valev (2004) suggested that after exceeding a certain size of the financial system, there is a decrease in the benefits resulting from its functioning, which is faster than the initial increase in these benefits. Pagano and Pica (2011), based on the analysis of the annual value added for 63 countries, state that the growth of the financial sector is beneficial only for countries outside the OECD group, where through the development of the financial sector there is easier access to financing that was previously lacking. Pagano (2014) noted that the positive impact of financial market development on economic growth only occurs until a certain level of the loan to GDP ratio is achieved, but the impact is negative above this level. In turn, Arcand, Berkes and Panizza (2015) wrote about the ratio of private credit to GDP. According to them, when the ratio exceeds 100%, there is a negative relationship between the development of the financial sector and economic growth. Similar research was conducted by Barajas et al. (2013), who found that the relationship between the degree of development of the financial sector and economic growth depends on the structural and institutional factors of a given country. Cecchetti and Kharroubi (2012) stated that the ratio of private credit to GDP should not exceed 90-100% and that the financial sector is effectively competing with other sectors of the economy for human capital and attracts the best talents, which has adverse effects on the entire economy; this latter suggestion was similar to the findings of Philippon and Reshef (2012).

3. Data and methodology

Regional research on the impact of financial sector development on economic growth was carried out using the example of 16 Polish regions. The administrative division of Poland assumes the division of this country into 16 voivodeships; for each voivodeship, the dependencies between the level of development of the financial sector and economic growth was analysed.

The first stage of the research was to identify variables that were then analysed. As a measure of the level of economic growth, the GDP per capita dynamics was adopted in the research. Determining the degree of financialization in the region posed numerous difficulties. Conducting research at the regional level required the proposition and use of a completely different set of data than in the studies conducted thus far at the national level. Exactly the same measures used in research determining the degree of financialization of the country could not be used, as many of them, such as stock market capitalization or money aggregates, are not and cannot be calculated for regions. The analysis required a transition from the national to the regional level and the selection of a different set of variables. While selecting variables for analysis, apart from substantive issues, the data availability was also guided. Lastly, 5 variables were selected for the analysis, defining the level of development of the financial sector in a given voivodeship. These were employment in the financial sector in a given voivodeship, salaries in the financial sector in the voivodeship, investment outlays and fixed assets of enterprises operating in the financial sector, investment outlays in enterprises operating in the financial sector, and credits and loans as sources of investment financing. These quantities were used to build indicators in absolute terms, which were finally used in surveys as measures determining the degree of development of the financial sector. The measurements used in the analysis and the designations assigned to them were collected and presented in Table 1.

Table 1. Indicators used in the analysis, determining economic growth and the degree of development of the financial sector in the regions

Measures of economic growth	Measures of the financial sector development stage	Determination of the measure of the development of the financial sector
Dynamics of GDP per capita	$\frac{\text{Number of employees in the financial sector in the region}}{\text{Number of employees in the region}}$	A
	$\frac{\text{Salaries in the financial sector in the region}}{\text{Salaries in the region}}$	B
	$\frac{\text{Investment outlays and fixed assets of enterprises from the financial sector in the region}}{\text{Investment outlays and fixed assets of enterprises in the region}}$	C
	$\frac{\text{investment outlays in enterprises operating in the financial sector in the region}}{\text{Investment outlays in enterprises in the region}}$	D
	$\frac{\text{Credits and loans as sources of financing investments in the region}}{\text{Sources of financing for total investments in the region}}$	E

Source: own study.

The data collected in the database "Local Data Bank" were used to construct the described results. The Local Data Bank is Poland's largest database on the economy, society and the environment. These data were additionally supplemented with information provided by the Central Statistical Office in Poland. The analysis took into account data from the years 2001-2016. However, some time series were shorter. This was due to the new division into sectors in the statistics in 2007, which in some cases resulted in the inability to compare data with information from previous years.

Between each measure of the development of the financial sector and the dynamics of GDP per capita, a correlation analysis was conducted to determine the relationships between variables. Then, a statistical significance test of each test was carried out at the level of 0.1. This means that with each correlation coefficient, it was assumed that the calculated value of the correlation coefficient is significantly different from zero, and 90% is not a coincidence. Verification of the truth of the hypothesis was made on the basis of statistics:

$$T_{n-2} = \frac{r}{\sqrt{1-r^2}}\sqrt{n-2},$$

Which, assuming the truth of the hypothesis, has a Student's t-distribution with n-2 degrees of freedom. Next, the obtained results were compared with the critical value read from the statistical tables for the significance level of 0.1 and the specified number of degrees of freedom. The time series used for particular variables differed among one another according to the availability and comparability of data. This meant that different correlation coefficients were used to determine different levels of significance. The critical set was determined based on the critical value. If the calculated T_{n-2} value did not fit into the critical set, this meant that the determined correlation coefficient could be considered significant. As a result, 80 different correlation coefficients and 80 statistical significance levels of 5 for each of the 16 regions were obtained.

4. Results

The research conducted indicated the diversified impact of the degree of development of the financial sector on the economic growth in individual regions of the country. The comparison of the obtained correlation coefficients is presented in Table 2. In brackets, the calculated value of the test statistic is given first, followed by the critical value read from the Student distribution tables. The values of correlation coefficients for which the materiality test was successful are marked in grey. In most cases, the value of T_{n-2} statistics was not in the critical set, which means there are no grounds to reject the hypothesis about the correlation of values.

Table 2. Correlation coefficients between economic growth and various measures of the financial sector development level in regions, as well as the value of test statistics and critical values for calculated correlation coefficients

Name of the voivodeship	Determination of the measure of the development of the financial sector				
	A	B	C	D	E
dolnoslaskie	0.39 (0.82; 0.67)	-0.09 (-0.09; 0.52)	-0.25 (-0.63; 0.62)	0.33 (0.87; 0.62)	0.43 (1.16; 0.62)
kujawsko-pomorskie	-0.54 (-1.06; 0.67)	0.23 (0.23; 0.52)	0.60 (1.85; 0.62)	0.52 (1.48; 0.62)	-0.31 (-0.81; 0.62)
lubelskie	0.74 (1.33; 0.67)	0.56 (0.57; 0.52)	0.71 (2.46; 0.62)	0.73 (2.60; 0.62)	0.24 (0.62; 0.62)
lubuskie	0.65 (1.22; 0.67)	0.83 (0.86; 0.52)	0.62 (1.94; 0.62)	0.45 (1.22; 0.62)	0.,27 (0.70; 0.62)
lodzkie	-0.34 (-0.73; 0.67)	-0.34 (-0.35; 0.52)	0.73 (2.61; 0.62)	0.32 (0.84; 0.62)	0.34 (0.88; 0.62)
malopolskie	0.10 (0.22; 0.67)	0.61 (0.62; 0.52)	0.49 (1.37; 0.62)	0.01 (0.01; 0.62)	0.55 (1.63; 0.62)
mazowieckie	-0.64 (-1.21; 0.67)	0.78 (0.81; 0.52)	0.67 (2.21; 0.62)	0.35 (0.91; 0.62)	0.23 (0.59; 0.62)
opolskie	0.41 (0.85; 0.67)	0.38 (0.38; 0.52)	0.60 (1.85; 0.62)	0.29 (0.74; 0.62)	0.06 (0.14; 0.62)
podkarpackie	0.51	0.36	0.27	0.52	-0.29

	(1.01; 0.67)	(0.36; 0.52)	(0.69; 0.62)	(0.49; 0.62)	(-0.74; 0.62)
podlaskie	0.38 (0.80; 0.67)	-0.03 (-0.03; 0.52)	0.64 (2.06; 0.62)	0.59 (1.77; 0.62)	-0.39 (-1.04; 0.62)
pomorskie	0.16 (0.36; 0.67)	0.59 (0.60; 0.52)	0.32 (0.81; 0.62)	0.21 (0.52;0.62)	0.50 (1.43; 0.62)
slaskie	-0.39 (-0.80; 0.67)	0.25 (0.25; 0.52)	0.64 (2.04; 0.62)	0.74 (2.67; 0.62)	0.66 (2.17; 0.62)
swietokrzyskie	0.57 (1.10; 0.67)	0.38 (0.39; 0.52)	0.62 (1.92; 0.62)	-0.42 (-1.13; 0.62)	-0.31 (-0.80; 0.62)
warminsko-mazurskie	0.61 (1.17; 0.67)	0.70 (0.72; 0.52)	0.72 (2.57; 0.62)	0.68 (2.28; 0.62)	0.76 (2.84; 0.62)
wielkopolskie	0.60 (1.14; 0.67)	0.63 (0.65; 0.52)	0.45 (1.25; 0.62)	0.42 (1.12; 0.62)	0.11 (0.26; 0.62)
zachodniopomorskie	0.68 (1.26; 0.67)	0.61 (0.63; 0.52)	0.71 (2.50; 0.62)	0.54 (1.58; 0.62)	0.50 (1.24; 0.62)

Source: own study.

In the above table, the results for the voivodeships in which the high relations between the degree of development of the financial sector and economic growth are the most frequent are bolded. In the warminsko-mazurskie and zachodniopomorskie voivodeships, for each variable describing the degree of development of the financial sector in the region, the results indicated a high, positive correlation with economic growth. This means that the development of the financial sector in this region will be conducive to economic growth. In the second group of regions for which the results indicate further development of the financial sector beneficial for the region, the following voivodeships were located: lubelskie (high, positive correlation for four financial sector development indicators) and lubuskie (high, positive correlation for three financial sector development indicators, at 0.83, for dependencies between economic growth and the number of employees in the financial sector).

In some cases, negative correlation coefficients were recorded, e.g., for the mazowieckie voivodeship the correlation coefficient between economic growth and the number of employees in the financial sector amounted to -0.64. This means a strong inverse relationship between these variables. Further increases in the number of employees in the financial sector will cause a decline in economic growth. It is worth noting that the capital of Poland, Warsaw, is located in the mazowieckie voivodeship. The area of the capital and the mazowieckie voivodeship are characterized by a high density of financial institutions and hence a large number of people working in the financial sector. Perhaps this confirms the theory of Philippon and Reshef (2012) and Cecchetti and Kharroubi (2012), who claimed that the financial sector attracts the best talents and that this inhibits the development of other sectors, which, given the high level of development of the financial sector, produces adverse effects for the entire economy.

5. Discussions and conclusions

The analysis conducted showed the beneficial effect of the further development of the financial sector in some regions of Poland and its adverse impact in other regions. The research results obtained seem to confirm the conclusions from the second stage of research on the relationships between the development of the financial sector and economic growth (among others, Rioja and Valev 2004, Cecchetti and Kharroubi 2012, Pagano 2014, Arcand, Berkes and Panizza 2015, Sahay R. et al. 2015) and reject the results of the first stage of research (among others, Levin 1997, Caprio and Honohan 2001, Lopez and Spiegel 2002, Caporale 2009 and Bijlsma and Dubovik 2014).

The results of the first stage of research present the positive relationship between the development of the financial sector and economic growth. They were not confirmed by the results of the research, because for some regions of the country, correlation coefficients were negative, which means a negative relationship. The authors of the second stage of research argue that the relationship between the economic growth of economic development and the degree of development of the financial sector takes the shape of a reversed letter "U". The development of the financial sector is only beneficial to a certain degree, as after exceeding a certain level of development of the financial sector, its further growth adversely affects growth and economic development.

The regions of the country for which the conducted research indicated a strong positive relationship with economic growth are the poorest regions of Poland, with a small degree of development of the financial sector. This would mean that they are located on the rising arm of the parabola, described in the literature. Further development of the financial sector in this region would be beneficial. This can be justified given the case of Pagano and Pica's (2011) earlier lack of access to sources of financing in this region. Along with the development of the financial sector, there may be further opportunities to search for financing to favour economic growth in the region.

On the other hand, negative relations between the development of the financial sector and economic growth appeared in well-developed regions, such as the mazowieckie voivodeship and the capital of Poland. This would mean that these voivodeships can be placed on the other, falling arm of the parabola.

The analysis of the obtained research results leads to two important conclusions. First, there is regional diversification regarding the impact of financial sector development on economic growth. The results of the conducted research clearly indicate such a conclusion. From this comes the second application, which confirms the research hypothesis proposed at the outset, that the study of dependencies between the development of the financial sector and regional economic growth allows for the creation of an accurate picture of the relationships between these areas. Regional research has provided knowledge of the regions of Poland in which further development of the financial sector is beneficial and those in which it is disadvantageous. Such knowledge could not be obtained using the analysis at the level of the entire country. The presented methodology can also be applied to the analysis of regions of countries other than Poland, and the research presented is a verification of research tools for international analyses.

6. Research limitations and directions for further research

The applied research method was based on the use of correlations between various variables. In the subject literature on research conducted at the national level, one can find the use of other, advanced analytical methods. In further research, it is advisable to also apply other test methods and compare the results obtained.

Research conducted on regions requires the use of a different set of indicators determining the degree of development of the financial sector. Measurements of financial sector development must take into account variables characteristic of regions. Five different measures of the financial sector development stage were used in the research conducted. The choice of data was dictated by substantive considerations but also by their availability or the lack thereof. In further analyses, it is recommended to search for other measures determining the degree of development of the financial sector and enriching this with the set of variables not used. These may be measures related to the situation:

households, e.g., household debt ratio in relation to GDP in the region, consumption in relation to GDP in the region, household debt in relation to household consumption in the region;

enterprises, e.g., the share of financial assets of enterprises operating in the region in relation to their total assets, the share of financial profits of enterprises operating in the region in relation to their total profits;

the economy as a whole, e.g., the value added generated by the financial sector in the region in relation to the value added generated in the region, the number of financial institutions operating in the region to the total number of institutions in the region. At the same time, when analysing the number of institutions operating in the region, it would be necessary to take into account not only banking institutions but also those from the non-banking sector. It may happen that, as a result of tightening the criteria for granting loans, clients from the banking sector will switch to non-banking sector institutions (Gemzik-Salwach 2017).

These measures should be tested and perhaps on that basis one should create an index of the development of the financial sector that would include all of these measures. The enrichment of the set of variables used should have a positive effect on the quality of the results obtained.

7. References

Arcand, J.-L., Berkes E., Panizza, U. (2015). Too Much Finance?. Journal of Economic Growth, 20(2), 105-148.

Arestis, P., Chortareas, G., Magkonis, G. (2014), The Financial Development and Growth Nexus: a Meta-Analysis. Journal of Economic Surveys.
https://kclpure.kcl.ac.uk/portal/en/publications/the-financial-development-and-growth-nexus(411f48ca-0cd2-4678-8080-3d4efb0d5af9)/export.html (accessed December 28, 2017).

Assa, J. (2012). Financialization and Its Consequences: the OECD Experience. Finance Research, 1(1), 35-39.

Barajas, A., Beck, T., Dabla-Norris, E., Yousefi R. (2013). Too Cold, Too Hot, or Just Right? Assessing Financial Sector Development across the Globe, IMF Working Paper WP/13/81.

Beck, T., Lundberg, M., Majnoni, G. (2003). Financial Intermediary Development and Growth Volatility: Do Intermediaries Dampen or Magnify Shocks? The World Bank. http://siteresources.worldbank.org/DEC/Resources/blm.pdf (accessed January 4, 2018).

Beck, T., Degryse, H., Kneer, C. (2014), Is More Finance Better? Disentangling Intermediation and Size Effects of Financial Systems. Journal of Financial Stability, 10, 50–64.

Bijlsma, M., Dubovik, A. (2014). Banks, Financial Markets and Growth in Developed Countries. A Survey of the Empirical Literature. CPB Discussion Paper, 2(266).

Borio, C. (2013). The Great Financial Crisis: Setting Priorities for New Statistics. BIS Working Papers, 408.

Borio, C., Juselius,M., Disyatat P., Drehmann, M. (2016). Monetary Policy, the Financial Cycle and Ultra-low Interest Rates. BIS Working Papers, 569.

Borio, C., Lombardi, M., Zampolli F. (2017). Fiscal Sustainability and the Financial Cycle. In Ódor, Ľ. (eds.) Rethinking Fiscal Policy After the Crisis. Cambridge University Press, 384-413.

Caporale, M. G., Raul, C., Sova, R., Sova, A. (2009). Financial Development and Economic Growth: Evidence from Ten New EU Members. Working paper, 09–37.
http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.425.1000&rep=rep1&type=pdf (accessed January 4, 2018).

Caprio, G., Honohan, P. (2001). Finance for Growth: Policy Choices in a Volatile World. A World Bank Policy Research Report, 1. World Bank Publications.
http://core.ac.uk/download/pdf/12016919.pdf (accessed December 20, 2017).

Cecchetti, S. G., Kharroubi, E. (2012). Reassessing the Impact of Finance on Growth. BIS Working Papers, 381.

Epstein, G. (2005). Financialization and the World Economy. Cheltenham and Northampton: Edward Elgar Publishing.

Friedman, M. (1953). Essays in Positive Economics. Chicago: Chicago University Press.

Gemzik-Salwach, A. (2017). Financialization and Going into Debt of Households in Poland. In Gemzik-Salwach, A., Opolski, K. (eds.), Financialization and the Econom. London and New York: Routledge, 150-165.

Gołębiowski G., Szczepankowski P. (2015). Finansyzacja gospodarki krajów Europy Środkowo-Wschodniej. Ruch prawniczy, ekonomiczny i socjologiczny, 4, 197-215.

Jorda, O., Schularick, M., Taylor, A. M. (2014). The Great Mortgaging: Housing Finance, Crises, and Business Cycle. Federal Bank of San Francisco Working Paper Series, 23.

Levine, R. (1997). Financial Development and Economic Growth: Views and Agenda. Journal of Economic Literature, 35(2), 688–726.

Levine, R. (2005), Finance and Growth: Theory and Evidence. In Aghion P., Durlauf, S. (eds.) Handbook of Economic Growth. Elsevier, 866-934.

Lopez, J., Spiegel, M. (2002). Financial Structure and Macroeconomic Performance over the Short and Long Run. Pacific Basin Working Paper Series, 02-05 September. Federal Reserve Bank of San Francisco.

Loayza, N., Ranciere, R. (2005). Financial Development, Financial Fragility, and Growth. IMF Working Paper, WP/05/170.

Minsky, H. P. (1982). Can „It" Happen Again?: Essays on Instability and Finance. New York: M. E. Sharpe.

Moshirian, F.(2011). The Global Financial Crisis and the Evolution of Markets, Institutions and Regulation. Journal of Banking and Finance, 35(3), 507–508.

Pagano, M., Pica G. (2011). Finance and Employment. Economic Policy. Working Paper 283. http://www.csef.it/WP/wp283.pdf (accessed December 28, 2017).

Pagano, M. (2014). Is Europe Overbanked?. Reports of the Advisory Scientific Committee, 4.

Philippon, T., Reshef, A. (2012). Wages and Human Capital in the U.S. Finance Industry: 1909--2006. The Quarterly Journal of Economics, 127(4), 1551-1609.

Sahaj, R., Čihák, M., N'Diaye P., Barajas A., Bi R., Ayala D., Gao Y., Kyobe A., Nguyen L., Saborowski Ch., Svirydzenka K., Yousefi S. R. (2015). Rethinking Financial Deepening: Stability and Growth in Emerging Markets. IMF Staff Discussion Note, 8. International Monetary Fund.

Stockhammer, E. (2010). Financialization and the Global Economy. Political Economy Research Institute, Working Paper, 240.

Rioja, F., Valev, N. (2004). Does One Size Fit All?: A Reexamination of the Finance and Growth Relationship. Journal of Development Economics, 74, 429–447.

Rousseau, P. L., Wachtel, P. (2011), What Is Happening to the Impact of Financial Deepening on Economic Growth? Economic Inquiry, 49(1), 276–288.

Sawyer, M. (2014), Financial Development, Financialization and Economic Growth. FESSUD Working Papers, 21. http://fessud.eu/wp-content/uploads/2013/04/Financialisation-and-growth-Sawyer-working-paper-21.pdf (accessed December 28, 2017).

Tobin, J., Brainard, W. C. (1977). Asset Markets and the Cost of Capita. In: Economic Progress, Private Values and Public Policy, 427, 235-262.

What territorial disparity means? A methodological approach

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local development, multidimensional approach, imbalances, planning policy

Abstract

The evaluation of local development provides useful tools to the devising of local policy strategies oriented to reduce the territorial imbalances. However, the efficiency of such a policy strategy is ensured by a deepen knowledge of the features of the area analyzed. The aim of this paper is provide a methodological model as support decision method to local policy makers. The proposed model – to be applied at local level – is based on a combined approach. Firstly, an assessment of the achieved development level is carried out, by clustering the territorial features in material and immaterial ones, allows to better understand the type of reached development. Then, the definition of indexes to measure the whole development, and their branches (material and immaterial ones) allows, also by considering the distance among 110 Italian provinces, to identify the deficiencies to be filled.

1. Introduction

The recent economic crisis has dramatically drawn the attention of national and international governments on topics such as poverty and imbalances, whose presence does not allow to achieve acceptable levels of general wellbeing and living (Palmer Fry et al., 2017). Addressing these problems is possible by planning targeted measures, aiming at the improvement of a community social wellbeing. Therefore, it is deemed necessary to establish statistical indicators for the measurement and assessment of social welfare (Newman, 2017).

The most used and widespread indicator is GDP, even though the current literature has shown its inability to provide useful information about several aspects that influence the quality of local development. Actually, GDP is related to "economic growth" and does not deal with goods that are outside of the market. In addition, it does not take into account negative externalities, wealth distribution and equity. Furthermore, Gross Domestic product does not provide any kind of information about the quality of public expenditure. Several new indicators have been recently developed, also qualitative ones; they are able to highlight the different parameters of the definition generally used for wellbeing.

Our analysis is developed with a combined approach, realized by: i) the construction of three different indexes - the main offers an overall measure of local development; other two sub-indexes that respectively reflect the level of infrastructural endowment about offered services and quality of the life- ii) the estimate of the distance of these obtained values from both an ideal threshold and an efficient one. Finally the lecture of results is offered both for each provinces and, following the EU planning 2014-2020 strategy, for the territorial aggregate in order to provide some consideration about the contrast among urban-intermediate and rural areas. This approach is applied to 110 Italian provinces.

The results underline that the obstacle for a correction of the regional unbalances derives from a policy approach that has privileged a quantitative endowment neglecting a multidimensional approach linked to the perceived quality of life (Capello, 2015; Capello, Caragliu, Nijkamp 2009).

The paper is structured as follows. After we have briefly mentioned the main models on the territorial unbalances, the second section presents the main methodologies that measure the wellbeing of an area. The third section describes the methodology applied. The fourth section provides the results. In the final section we discuss the findings, provides policy suggestion, and conclude the paper.

Literature Review

In recent years the topic of wellbeing has been at the centre of a debate whose nature is international (OCSE, 2010; Scrivens et al., 2010; Hall et al., 2010; Stigliz et al., 2008), European (EENDR, 2010; Commission of the European Communities, 2009) and national (Cnel e Istat). This debate is also contributing to the definition of a theoretical reference framework, useful for the analysis and evaluation of the state and proffers of society, from a multidimensional point of view.

This interest derives from the verification that grown, strictly speaking, as a mere increase in incomes, industrialization and investments, does not always lead to positive effects on the life quality of the population, especially without appropriate social and environmental policies. Therefore, growth is possible only through wellbeing improvement.

From this perspective, the PIL is an inadequate indicator for the wellbeing assessment and needs to be integrated by other non-monetary indicators involving also social an environmental aspects, fundamental for the citizens' wellbeing and quality of life (Stigliz et al., 2008).

There are many contributions in the field which have been given in order to overcome and extend the traditional definition of growth, based entirely on the improvement of material developmental factors. This is also what the United Nations are trying to do by introducing, in 1990, the *Human Development Index* – HDI. An index that initially covered only three dimensions (income, education and health), but that was integrated with the multidimensional poverty index (MPI), giving an estimate of the poverty as a "multidimensional" condition, thus being useful in the destination of resources; and with the "fixed" index HDI which consider inequalities.

The OCSE, in turn, originated many initiatives on the wellbeing subject, thus defining some reference framework to measure society development and identifying some relevant domains. In 2011 the publication of report entitled "how is life?" tried to be a useful instrument for the comparison of the quality of life of 34 countries, developed and in development, on the basis of a wide set of indicators which could be representative of the performances reached in the 11 essential domains. The framework in which the indicators have been identified, can be divided in three macro pillars: a) The material conditions, analyzed with reverent to incomes and wealth, jobs, retributions and homes; b) Life quality, examined with reference to health, education and competences, balance between working and non-working time, civic engagement and governance, social relationships, environmental quality, personal safety and subjective wellbeing; c) sustainability, which focuses on stock and enabled to evaluate wellbeing sustainability in time together with productivity improvement. It is divided in: economic capital, environmental capital, human and social capital.

OCSE's approach provides new instruments for a better multidimensional vision of the progress, so as to broaden the knowledge of citizens and administrators and also to implement more effective policies.

The Stiglitz- Se- Fitoussi Commision, in 2008, stated the importance of not privileging the economic wellbeing measurement. However, there is no single measurement which could define all the different dimensions of wellbeing. Due to the impossibility of elaborating a single indicator, the Commission recommends drawing all the attention to the dimensions relevant for the wellbeing of the individuals. Among these, on the base of the available researches, 8 are deemed important: the psycho-physical state of people, knowledge and the capacity to understand the world in which we live, job, material wellbeing, environment, interpersonal relationships and the participation to social life with the perceived security/insercurity. In addition to this, it is necessary to consider the distribution of all the wellbeing (equity) dimensions and to see the sustainability not only as an environmental phenomenon due to its economic and social nature.

In Italy, the Statistical Bureau (Istat) in 2010 started a national research program, together with the Economy and Labour National Council (Cnel), which contributed to the development of a set of indicators of equal and sustainable wellbeing (BES). In this way they integrated wellbeing with equity and sustainability which refer to the following dimensions: environment, health, economic wellbeing, education; job and life time conciliation; social relationships, security, subjective wellbeing, territory and cultural heritage, research and innovation, service quality, politics and institutions.

Despite the significant attention payed on the topic, the concept of wellbeing is still very vague and difficult to explain in operational terms, without having a universally accepted definition. Giovannini (2007) claimed that "the concept of wellbeing changes depending on the time, the paced and the cultures and cannot be defined in a single way, but only through a process which involves the society themselves. The debate the measurement of wellbeing needs the contribution of the citizens, the associations, the companies and the institutions".

3. Wellbeing evaluation: the methodology proposed

The wellbeing measurement of a territory is analyzed by means of a multidimensional approach concerning several features – immaterial and material ones - which influence life quality of the people. Considering the critical issues which could arise in the synthesis of such a complex phenomenon in terms of information loss, we set out to measure territory wellbeing by means of synthetic indexes which could reflect the wellbeing dimensions taken into account in the model and thus following the statement of Stiglitz Commission (2008).

The methodology consists of a combined use of different measurement tools: i) the construction of both a composite index, namely Local Development index (LDI) - which offers a vertical comparison among the observation by ranking the level of development achieved -and two sub-indexes, namely LDI_immaterial and LDI_material - that provide in details an horizontal comparison by respectively reflecting the level of quality of the life and of infrastructural endowment; ii)starting from the obtained results, the estimate of the deviations of each observation from both an ideal threshold and an efficient one.

With reference to a multidimensional approach to wellbeing, the analysis has been conducted by dividing the basic indicators/variables that measures the specific features of 110 provinces in Italy. We have constructed the dataset by following the scheme proposed by the Regional OECD Better Life Index, since its hierarchy framework appears the most exhaustive among the indices used currently to calculate the well being (OECD, 2011). This index is computed both at country level and regional level(or TL2) and it is comprised of 12 dimensions a tnational level and 11 at regional one.. In this paper, we use the regional index in order to build it at a sub regional level – TL3. Given the available data provided by ISTAT, MEF and DPS, 21 basic indicators/variables have been identified and grouped into 2 cluster: Immaterial features and material one (tab. 1).

From a territorial and demographic point of view, those aspects that best represent the context have been selected, in order to find a further characterization of each territorial system in terms of rurality and urbanization.

Tab.1 Data selected

Label	Macro area/Dimension/Variable	Regional OECD Better Life Index	LDI	Data source	Year
IMMATERIAL FEATURES					
Income					
Income_percap	Householddisposableincome	x		Italian Ministry of Economy and Finance	2015

Jobs					
Empl_rate	Employment rate	x		OECD.Stat	2015
Unemp_rate	Unemployment rate	x		OECD.Stat	2015
Housing					
Hous	Average number of rooms per inhabitant	x		ISTAT[1]	2015
Health Status					
Life_exp	Life expectancyatbirth	x		Eurostat	2015
Mort_rate	Age adjustedmortality rate	x		Eurostat	2015
Education and skills					
Edu_att	Educationattainment	x		ISTAT[1]	2015
Environmentalquality					
Air_qual	Air quality	x		OECD.Stat	2015
Personal security					
Homic_rate	Homicide rate	x		OECD.Stat	2015
Civic engagement and governance					
Vot_turn	Votertornout	x		Italian Ministry of the Interior	2015
Accessibility of services					
Digit_Div	Broadband connection	x		ISTAT[1]	2015
Work-life balance					
Work_balance	Employees working very long hours		x	ISTAT[1]	2015
MATERIAL FEATURES					
Infrastructure and service endownment					
Water_effic	Water management efficiency		x	ISTAT[1]	2015
Separ_waste	Separate wastecollectionservices		x	ISTAT[1]	2015
RES_prod	Renewableenergy production		x	ISTAT[1]	2015
Energy_grid	Energy grid		x	ISTAT[1]	2015
Schools	Schools		x	ISTAT[1]	2015
Hospit_accom	Hospital accomodation		x	ISTAT[1]	2015
Railway_st	Railway station		x	ISTAT[1]	2015
Bank_point	Check-cashingplace		x	ISTAT[1]	2015
Urban_access	Access to urbannode		x	ISTAT[1]	2015

[1] ISTAT is the Italian National Institute of Statistics. It is the main producer of official statistics in the service of citizens and policy-makers. Statistics are availableat: http://www.istat.it/en/

The development of these synthetic indexes is based on the methodology proposed by OCSE (2008) applied to different case studies (Nicoletti et al.2000; Ercolano and Romano, 2012; Arbolino et al., 2017)), which consists of the following operations:

Date selection;

Multivaried analysis, so to measure the dataset compatibility and to define the following methodological choices;

-Ponderation and aggregation procedure.

The evaluation of the territorial disparity is based on the calculation of two indexes:

"disparity distribution index" based on the review of the headcount ratio and income gap ratio, Sen (1976);

G Gini index, measures the degree of inequality among the provinces

3.2 Multivariate analysis

The data matrix has been tested through the Principal Component Analysis (PCA), that allows to identify the correlation among the different variables and to create a new framework, which is easier to read and interpret (Pearson, 1910, Hotelling, 1933).

The first step of the analysis consists in defining the number of the principal components. This choice is done through the Kaiser criterion, according to which only the factors with an eigenvalue higher than 1 and that cumulatively contribute to explain a variance value higher that 60% should be considered.

The second step is the rotation of the factors, in order to have a clearer illustration of the variables on each factorial axe. The used rotation method is the *Varimacrotation* (Linting et al., 2007), that minimises the number of variables having high loadings (correlation coefficients) on the axes. It ensures an easier interpretation of the factors (OECD, 2008).

The results of this procedure are explained in Tab. 2, where variable loadings are expressed by values between -1 and +1.

The first factor indicates the degree of "socio-economic dynamism", represented by the occupational and entrepreneurial activity.

The second factor indicates the "degree of rurality": those variables related to agricultural and forestry issues are strongly correlated.

The third axis is diametrically opposed to the second, regarding the degree of urbanization and taking into account the infrastructures and service endowment in a significant way.

The last considered factor, the fourth one, has been named "tourism-oriented development" and represents the viability of the touristic economic sector: in fact, the variable "hotel accommodation services" shows very high loadings on such axe.

3.3 Ponderation and Aggregation

According to OCSE (2008), the assignment of weights to the variables which have been aggregated refers to a theoretic framework that mainly takes into account the degree of correlation among the indicators and, then, choose the most appropriate weighting technique. Generally, weights can be distributed among all the indicators, or assigned according to the concern to the public and experts. This procedure is not always preferable, especially when objectivity and precision are required (Ercolano and Romano, 2012).

Even though there are many weighting techniques, in this work we use the PCA results in order to group the indicators according to their degree of correlation. According to OCSE methodology, weights are taken from the factors loading matrix after the rotation, since the squares of "factor loadings" represent part of the indicator variance explained by the factorial axe.

In other words, this approach consists of "weighting every single indicator according to the portion of its own variance explained by the factorial axle which it is linked to, while each principal component is weighed according to its contribution to the portion of explained variance of the dataset" (Nicoletti et al., 2001).

The methodology referred to in the paper is based on a different weighting and aggregation procedure, that has been tested in other studies (Arbolino and De Simone, 2015; Antony e Rao, 2007). Such procedure is based on factor score coefficients, namely each case studies (or each statistical unit) score (estimated using the regression methodology) on each principal component.

For each j-th (j-esimo) Province, synthetic indicators have been calculated according to the following formula:

$$Ij = \sum_{K=1}^{f} \left(\frac{\lambda k}{\Lambda}\right) * \alpha_k^{xj} \quad (1)$$

In which:

Ij represents the indicator for each j-th (j-esimo) Province;

$\alpha_k^{x_j} = \{\alpha_1^{x_j}, \ldots, \alpha_f^{x_j}\}$ represents the factor scores of each case studies – x_j– on each f-th factor;

$\lambda_k = \{\lambda_{k1},\ldots,\lambda_{kJ}\}$ represents the variance (%) explained by each f-th factor,
Λ stands for the cumulative variance
x_j represents the case studies.

In order to assess the wellbeing of Campania Provinces with a view to multidimensionality, it was considered appropriate to create a synthetic indicator for each dimension that we took into account in the model, by applying (1).
Such indicators can have positive or negative values, so they have been normalized using the min-max procedure:
$SIj = \frac{(Ij - Min\ I)}{(Max\ I - Min\ I)} * 100$ (2)
Where:
Sj represents the single indicator, for each J-th Province;
Min I and Max I indicate the minimum and the maximum value of the Ij indicators;
Thus, each indicator will have a value between 0 and 100, making it easier to read the data.

Evaluating the territorial disparity

Once the indexes are calculated for each province, we have defined the threshold in order to identify those that not obtain a value equal to an acceptable level of life.

Thus, for limiting the sensitive to the size and number of provinces and according to OECD procedure (OECD, 2008), we not considering the 20% best values and the 20% worst. Then we have calculated "efficient value" as 'interquartile' average: between the first quartile and the third one; scenario 2 as "ideal value" equal to the maximum value resulted by the fourth quartile. Once calculated these value, the provinces that doesn't reach that threshold, become those to be improved within the sample.
These measure "disparity distribution index" is based on the review of the headcount ratio and income gap ratio:

$$S = H[I + (1 - I)G_z] \quad \text{(eq. 5)}$$

where- H is the diffusion disparity indicator (eq.6);computed as

$$H = \frac{q}{N} \quad \text{(eq. 6)}$$

in which q means the number of Italian provinces below the threshold value; N means the number of all Italian Provinces.
I is the disparity intensity indicator (eq.7): it measures the disparity intensity as distance of provinces less liveable from the threshold value -expressed as value of the composite indexes- following the structure of Income Gap Ratio-:

$$I = \frac{1}{q}\sum_{i=1}^{q}\frac{(z - y_i)}{z} \quad \text{(eq. 7)}$$

in which z is the threshold value; y_i is the values of the composite index for each province. This indicator can be interpreted as the quantuum needed to overcome, or to equalize at least, the threshold value.

G Gini index, measures the degree of inequality among those provinces which wellbeing values are below the threshold value

$$G = \frac{1}{2q^2}\sum_{i=1}^{q}\sum_{j=1}^{q}|y_i - y_j| \quad \text{(eq. 8)}$$

The obtained values could be understood as weight relative that every province, within the sample but below the threshold value could assume in an economic planning – financial.

Empirical results

By using the illustrated procedure in section 3.1-3.2-3.3-3.4, we obtained LDI ranking. In order to provide useful information for the policy makers we have investigated also the role played by quality of life dimension and infrastructure provision one in achieving higher level of local development. In doing so, a disaggregated analysis is carried out by calculating provincial LDI_immaterial and LDI_material, following the same methodology. All of these values are presented in Appendix A while Table 2 synthesizes the obtained values for macro territorial areas providing statistical informations

The Italian provinces belonging to the Northern and Central area are placed above country average (Table 2). Such data represents 56% of the analysed phenomenon (66 provinces out of 110). At the first ten positions the Northern provinces are classified, except for Siena belonging to a Central region. This confirms the relationship between economic growth and well-being: these provinces belong to regions traditionally performing a strong economic dynamism mainly driven by industry sector. (Della Porta et al., 2016).

The Southern provinces (with just five provinces of Central Italy) present the worst performance of the LDI, by showing how a general reduction of growth and a wider slowdown in economic activities can affect the quality of life negativly (Della Porta et al., 2016).

Thus, from a LDI geographical distribution point of view, in Italy there are two macro areas - the North and the South - which border is represented by the Centre Italy by confirming the historical Italian dualism between an economically developed area (the Central and the Northen areas) and an economically undeveloped one (the Southern area) (Jules, 2017). A disaggregated analysis has been carried out in order to provide a better explanation of the role of the macro categories - immaterial services (QI) and for material ones (ISI): the Provinces with a better performance of LDI, show that the development is equally due to the quality of life factors and to the existence of infrastructure. However, if we considered the provinces with a LDI above the country average, many of them show a displacement: the wellbeing is driven by good life satisfaction derived from better economic features. The worst performing provinces display that a low liveability is affected by both analyzed sub domains.

In this research the issue of territorial disparity between urban areas and rural ones is also considered. For evaluating the distance between the provinces and, thus, provide a support to the policy makers in defining suitable policies, two scenarios have been analysed: the first one represents the acceptable situation by computing an efficient threshold of the LDI and of the two sub-indexes; unlike, the second one is based on the ideal threshold. The obtained results explain the relative weight of each province on the total of those that are below the threshold.

In order to provide further consideration, the provinces have been classified in Predominantly Urban (PU), Intermediate (IN) and Predominantly Rural (RU), following the OECD classification (OECD, 2010).

In the first scenario, the disparity distribution index shows that the weakness of rural areas is mainly linked to the quality of life and to wealth distribution rather than to the lack of infrastructural endowment. That means the infrastructures and the essential services exist, but their functionality is relatively low. Moreover, within this cluster there is on average the wider gap from the threshold but a lower standard deviation than the others clusters.

The urban area are closer to the threshold despite they present a higher infrastructural deficit and the number of involved provinces is wider than rural. Finally, the Intermediate cluster show issues in both domain (material and immaterial); also considering the gap from the threshold this cluster is in intermediate position than the others.

The second scenario shows lower values on average because of the considered sample is wider by considering provinces with lower gap by the threshold. The results confirm those of efficient scenario, however it is even more highlighted that the urban and intermediate area show mainly lack in infrastructural endowment, while the opposite occur for the rural area.

In conclusion, by these results on the analysis on the territorial disparity we can argue that it is not more possible to associate to urban-rural dichotomy with that rich areas -poor ones, since low levels of wellbeing occur within all territorial categories.

Table 2- Statistics information for geographical areas

Geo Area	Statistic information	WBI Value*	WBI Value**	QI***	ISI ****
Italy	Min	-1,06	0,0000	0,00	0,00
	Max	0,90	1,0000	1,00	1,00
	Mean	0,00	0,5429	0,60	0,39
	DevSt	0,48	0,2440	0,27	0,21
North	Min	-0,02	0,5312	0,56	0,00
	Max	0,90	1,0000	1,00	1,00
	Mean	0,39	0,7430	0,82	0,44
	DevSt	0,22	0,1145	0,11	0,24
Center	Min	-0,45	0,3128	0,38	0,01
	Max	0,63	0,8655	0,91	0,64
	Mean	0,08	0,5842	0,70	0,32
	DevSt	0,28	0,1428	0,15	0,14
South	Min	-1,06	0,0000	0,00	0,06
	Max	0,24	0,6676	0,61	0,76
	Mean	-0,50	0,2899	0,30	0,38
	DevSt	0,32	0,1632	0,14	0,18

		Efficient Scenario Disparity distribution index			Ideal Sceanario Disparity distribution index		
		LDI	LDI_imm	LDI_mat	LDI	LDI_imm	LDI_mat
Urban	Average	0,094	0,123	0,100	0,031	0,026	0,055
	St. Dev.	0,059	0,034	0,049	0,025	0,0264	0,024
Rural	Average	0,152	0,161	0,048	0,049	0,049	0,029
	St. Dev.	0,035	0,047	0,013	0,021	0,024	0,017
Intermediate	Average	0,097	0,099	0,079	0,039	0,037	0,047
	St. Dev.	0,044	0,041	0,044	0,026	0,026	0,019

Table 3 Efficient Scenario

N.	OECD Class_	Provinces	SEN LDI	SEN_ Immaterial	SEN_ material	N.	OECD Class_	Provinces	SEN LDI	SEN_ Immaterial	SEN_ material
1	Intermediate	Ancona	-	-	0,092	40	Rural	Medio Campidano	0,112	0,115	0,023
2	Intermediate	Bologna	-	-	0,025	41	Rural	Enna	0,110	0,125	-

3	Intermediate	Forlì-Cesena	-	-	0,021	42	Rural	Nuoro	0,110	0,107	0,039
4	Intermediate	Mantua	-	-	0,026	43	Rural	Ogliastra	0,104	0,128	-
5	Intermediate	Parma	-	-	0,082	44	Rural	Viterbo	0,057	0,048	0,031
6	Intermediate	Piacenza	-	-	0,024	45	Rural	Campobasso	0,056	0,077	-
7	Intermediate	Rovigo	-	-	0,075	46	Rural	Oristano	0,056	0,085	-
8	Intermediate	Savona	-	-	0,105	47	Rural	Olbia-Tempio	0,056	0,082	-
9	Intermediate	Taranto	0,172	0,132	0,150	48	Rural	Matera	0,055	0,100	-
10	Intermediate	Siracusa	0,162	0,133	0,121	49	Rural	Potenza	0,039	0,084	-
11	Intermediate	Caserta	0,155	0,152	0,056	50	Urban	Bergamo	-	0,032	-
12	Intermediate	Caltanissetta	0,145	-	0,076	51	Urban	Florence	-	-	0,081
13	Intermediate	Reggio di Calabria	0,131	0,140	0,018	52	Urban	Genoa	-	-	0,053
14	Intermediate	Cagliari	0,129	0,093	0,124	53	Urban	Gorizia	-	-	0,112
15	Intermediate	Agrigento	0,129	0,131	0,034	54	Urban	La Spezia	-	-	0,136
16	Intermediate	Catanzaro	0,122	0,126	0,027	55	Urban	Livorno	-	-	0,034
17	Intermediate	Sassari	0,121	0,087	0,112	56	Urban	Milan	-	-	0,167
18	Intermediate	Cosenza	0,120	0,165	-	57	Urban	Modena	-	-	0,063
19	Intermediate	Trapani	0,098	0,083	0,060	58	Urban	Padua	-	-	0,040
20	Intermediate	Latina	0,096	0,086	0,047	59	Urban	Pisa	-	-	0,065
21	Intermediate	Vibo Valentia	0,092	0,118	-	60	Urban	Pistoia	-	-	0,088
22	Intermediate	Frosinone	0,090	0,077	0,054	61	Urban	Reggio Nell'Emilia	-	-	0,065
23	Intermediate	Messina	0,084	0,091	-	62	Urban	Trieste	-	-	0,177
24	Intermediate	Salerno	0,073	0,129	-	63	Urban	Venice	-	-	0,121
25	Intermediate	Fermo	0,058	0,017	0,105	64	Urban	Naples	0,194	0,185	0,084
26	Intermediate	Avellino	0,054	0,078	-	65	Urban	Barletta-Andria-Trani	0,187	0,152	0,142
27	Intermediate	Benevento	0,048	0,079	-	66	Urban	Brindisi	0,156	0,117	0,141
28	Intermediate	Pescara	0,042	0,022	0,050	67	Urban	Bari	0,140	0,116	0,098
29	Intermediate	Chieti	0,040	0,036	-	68	Urban	Lecce	0,133	0,135	0,034
3	Intermedi	Massa-	0,03	-	0,076	69	Urb	Ravenna	0,116	-	-

0	ate	Carrara	3				an				
31	Intermediate	Ferrara	0,026	-	0,159	70	Urban	Ragusa	0,109	0,127	-
32	Rural	Arezzo	-	-	0,048	71	Urban	Catania	0,085	0,114	-
33	Rural	Isernia	-	0,067	-	72	Urban	Rome	0,078	0,067	0,043
34	Rural	L'Aquila	-	0,022	-	73	Urban	Palermo	0,076	0,094	-
35	Rural	Rieti	-	0,018	-	74	Urban	Prato	0,046	-	0,172
36	Rural	Rieti	-	0,020	-	75	Urban	Imperia	0,027	-	0,028
37	Rural	Foggia	0,177	0,177	0,057	76	Urban	Monza and Brianza	0,027	-	0,104
38	Rural	Crotone	0,168	0,199	-	77	Urban	Rimini	0,023	-	0,151
39	Rural	Carbonia-Iglesias	0,112	0,108	0,039	78	Urban	Lucca	0,019	-	0,101

Tab.4Ideal Scenario

N.	OECD Class_	Provinces	SEN LDI	SEN_Immaterial	SEN_material	N.	OECD Class_	Provinces	SEN LDI	SEN_Immaterial	SEN_material
1	Intermediate	Agrigento	0,071	0,070	0,048	55	Rural	Enna	0,064	0,068	0,036
2	Intermediate	Alessandria	0,008	0,006	0,033	56	Rural	Foggia	0,088	0,086	0,056
3	Intermediate	Ancona	0,020	0,003	0,067	57	Rural	Isernia	0,027	0,048	
4	Intermediate	Arezzo	0,024	0,015	0,053	58	Rural	L'Aquila	0,019	0,032	
5	Intermediate	Ascoli Piceno	0,018	0,017	0,035	59	Rural	Matera	0,044	0,060	0,006
6	Intermediate	Asti		0,006	0,014	60	Rural	Medio Campidano	0,064	0,065	0,045
7	Intermediate	Avellino	0,044	0,052	0,021	61	Rural	Nuoro	0,064	0,062	0,050
8	Intermediate	Benevento	0,042	0,052	0,015	62	Rural	Ogliastra	0,062	0,069	0,028
9	Intermediate	Biella	0,006		0,038	63	Rural	Olbia-Tempio	0,044	0,053	0,020
10	Intermediate	Bologna	0,005		0,045	64	Rural	Oristano	0,044	0,054	0,018
11	Intermediate	Bolzano-Bozen				65	Rural	Perugia	0,019	0,015	0,039
12	Intermediate	Cagliari	0,071	0,057	0,078	66	Rural	Potenza	0,039	0,054	
13	Intermediate	Caltanissetta	0,076	0,070	0,062	67	Rural	Potenza			0,004
14	Intermediate	Caserta	0,080	0,077	0,055	68	Rural	Rieti	0,019	0,031	0,005
15	Intermediate	Catanzaro	0,068	0,069	0,046	69	Rural	Sondrio		0,032	

16	Intermediate	Chieti	0,039	0,037	0,041
17	Intermediate	Cosenza	0,067	0,082	0,025
18	Intermediate	Cremona		0,002	
19	Intermediate	Cuneo		0,015	
20	Intermediate	Fermo	0,045	0,030	0,072
21	Intermediate	Ferrara	0,034	0,009	0,089
22	Intermediate	Forlì-Cesena	0,005		0,044
23	Intermediate	Frosinone	0,057	0,051	0,055
24	Intermediate	Grosseto	0,027	0,027	0,034
25	Intermediate	Latina	0,059	0,055	0,053
26	Intermediate	Macerata	0,016	0,013	0,036
27	Intermediate	Mantua	0,016	0,009	0,046
28	Intermediate	Massa-Carrara	0,036	0,025	0,062
29	Intermediate	Messina	0,055	0,056	0,038
30	Intermediate	Parma	0,015		0,064
31	Intermediate	Pavia	0,003	0,018	
32	Intermediate	Pesaro e Urbino	0,006	0,007	0,025
33	Intermediate	Pescara	0,039	0,032	0,053
34	Intermediate	Piacenza	0,009		0,045
35	Intermediate	Pordenone			0,023
36	Intermediate	Reggio di Calabria	0,071	0,073	0,043
37	Intermediate	Rovigo	0,023	0,009	0,062
38	Intermediate	Salerno	0,051	0,069	0,074
39	Intermediate	Sassari	0,068	0,055	0,072
40	Intermediate	Savona	0,029	0,012	0,020
41	Intermediate	Siracusa	0,083	0,071	0,077
42	Intermediate	Taranto	0,086	0,071	0,086
43	Intermedia	Teramo	0,029	0,031	0,030
70	Rural	Viterbo	0,045	0,041	0,047
71	Urban	Bari	0,075	0,065	0,069
72	Urban	Barletta-Andria-Trani	0,092	0,078	0,084
73	Urban	Bergamo	0,015	0,036	
74	Urban	Brescia	0,014	0,019	0,020
75	Urban	Brindisi	0,081	0,065	0,083
76	Urban	Catania	0,055	0,064	0,022
77	Urban	Como	0,007	0,026	0,014
78	Urban	Florence	0,019	0,005	0,064
79	Urban	Genoa	0,015	0,004	0,055
80	Urban	Gorizia	0,014		0,074
81	Urban	Imperia	0,034	0,029	0,047
82	Urban	La Spezia	0,028	0,007	0,081
83	Urban	Lecce	0,072	0,072	0,048
84	Urban	Lecco	0,002	0,008	0,012
85	Urban	Livorno	0,026	0,019	0,048
86	Urban	Lodi	0,013	0,008	0,042
87	Urban	Lucca	0,031	0,015	0,070
88	Urban	Milan	0,028	0,001	0,092
89	Urban	Modena	0,016	0,003	0,058
90	Urban	Monza and Brianza	0,034	0,018	0,071
91	Urban	Naples	0,094	0,089	0,065
92	Urban	Novara	0,008	0,007	0,029
93	Urban	Padua	0,012	0,002	0,050
94	Urban	Palermo	0,052	0,057	0,029
95	Urban	Pisa	0,018	0,005	0,058
96	Urban	Pistoia	0,026	0,011	0,066
97	Urban	Prato	0,041	0,016	0,093

	te										
44	Intermediate	Terni	0,020	0,018	0,036	98	Urban	Ragusa	0,064	0,069	0,034
45	Intermediate	Trapani	0,060	0,054	0,057	99	Urban	Ravenna	0,011		0,075
46	Intermediate	Udine			0,028	100	Urban	Reggio Nell'Emilia	0,015	0,002	0,059
47	Intermediate	Verbano-Cusio-Ossola		0,023		101	Urban	Rimini	0,033	0,009	0,086
48	Intermediate	Vercelli	0,008	0,005	0,034	102	Urban	Rome	0,052	0,048	0,051
49	Intermediate	Vibo Valentia	0,058	0,066	0,025	103	Urban	Treviso	0,008	0,004	0,036
50	Rural	Aosta Valley		0,005	0,017	104	Urban	Trieste	0,028		0,095
51	Rural	Belluno		0,002	0,016	105	Urban	Turin	0,012	0,030	
52	Rural	Campobasso	0,045	0,051	0,025	106	Urban	Varese	0,019	0,020	0,030
53	Rural	Carbonia-Iglesias	0,065	0,062	0,050	107	Urban	Venice	0,025	0,005	0,077
54	Rural	Crotone	0,085	0,094	0,031	108	Urban	Verona	0,004	0,003	0,029
						109	Urban	Vicenza	0,007	0,004	0,033

5. Conclusions

The ongoing international, European and national debate about the welfare assessment continues to provide points of discussion and analysis, both in theoretic and evaluation terms.

This paper, according to the Commission Stiglitz-Sen-Fitoussi recommendation (2008), has tried to address the problem of different levels of development in the Italian Provinces of Italy. In doing so, we created three indexes for evaluating the development at provinces level, first by define the lack within the provinces both of immaterial features and the material ones; then for highlighting the differences among the urban-rural and intermediate areas(Ferrucci and Picciotti, 2017).

Given the necessity of identifying specific areas where homogeneous interventions could be implemented, the definition of "rural" is considered residual compared to the concept of "urban", so it is not clearly formulated. This circumstance is evident in OCSE classification schemes, that classifies territories as "predominantly rural", "significantly rural" and "urban" on the base of a single variable, namely population density. In some cases, in addition to the population size and the population density, other indicators have been taken into account. They have been useful in order to ascertain the "rural" component from the "urban" one of a specific territory. In this direction, the Mipaaf method is the instrument used by Italian institutions to classify Italian region rural areas in the context of 2014-2020 PSR. It uses other variables, such as agricultural and forestry surfaces, the SAT/surface of the territory ratio and the population density(Biennale, 2017).

Even this approach does not take into account a number of welfare dimensions, so, when planning, it should be considered as a starting point for further improvements, considering it not sufficient (Rocchi Turchetti, 2013). Limited attention to the evaluation of life quality and infrastructural provision is evident in the rural development programmes in Italian regions, with exception of Piemonte and Emilia Romagna. These programmes proposed models that are able to develop synthetic indexes whose aim is to expand the quality of life analysis. In this work, we wanted to highlight the importance of a full comprehension of the decisional problem that has to be faced in each decision making process . It has been highlighted the importance of structuring the decisional problem in a way that takes into account the relationship between the objectives and the instruments, in order to fully support the strategic and operative planning activity towards the creation of efficient, effective and feasible solution.

In particular, we tried to show the possibility of realizing this aim using some instruments that are able to provide the information that decision maker needs in each specific decisional moment, if they are used in an integrated way (Arbolino et al., 2017). The relevance of our results and policy implications make it necessary to begin a systematic data collection on a sub-provincial level, in order to make all the relevant variable about quality of life on a municipality level available. Despite the progress made by Italy in the assessment of welfare, data and information on a municipal level are not adapted to the space-time requirements of the welfare analysts.

Bibliography

Antony, G. M. & Rao, K. V. 2007. A composite index to explain variations in poverty, health, nutritional status and standard of living: Use of multivariate statistical methods. Public Health, 121, 578-587.

Arbolino, R., Carlucci, F., Cirà, A., Ioppolo, G., Yigitcanlar, T., 2017. Efficiency of the EU regulation on greenhouse gas emissions in Italy: The hierarchical cluster analysis approach. Ecol. Indic. 81. https://doi.org/10.1016/j.ecolind.2017.05.053

Arbolino, R., De Simone, L., 2015. Measuring industrial environmental sustainability with a composite indicator: evidence from italian regions, in: Challenges of Europe: International Conference Proceedings. p. 199.

Arbolino, R., De Simone, L., Carlucci, F., Yigitcanlar, T., Ioppolo, G., 2017. Towards a sustainable industrial ecology: implementation of a novel approach in the performance evaluation of Italian regions. J. Clean. Prod.

Biennale, P., 2017. Programma Rete Rurale Nazionale 2014-2020 Piano Biennale 2017-18.

Capello, R., Caragliu, A., Nijkamp, P., 2009. Territorial capital and regional growth: increasing returns in cognitive knowledge use.

Commission of the European Communities, 2009. Communication from the Commission to the Council and the European Parliament – GDP and beyond Measuring progress in a changing world, Brussels 20.08.2009

Della Porta, M.R., Massaro, G., Mazzoni, E., Rosa, E., Tedesco, G., 2016. Report I-Com; L'Economia delle regioni Italiane e i rapporti tra amministrazioni territoriali e imprese. Oss. Relaz. Territ. Report I-C, 1–144.

EENRD, 2010. Approaches for assessing impact of the Rural Development Programmes in the context of multiple intervening factors

Ercolano S., Romano O., 2012. Who Makes the Most? Measuring the ''Urban Environmental Virtuosity'', Social Indicators Researcher, Springer

Ferrucci, L., Picciotti, A., 2017. From economic dualism to local variety: The development of service industries in Italian regions. Local Econ. 32, 14–33.

Giovannini, E., Hall, J., Mira d'Ercole, M., 2007. Measuring well – being and social progress, OECD, Paris

Hall, J., et al- 2010., A framework to measure the Progress of Societies, OECD Statistic Working Paper , no. 2010/05, Paris

Hotelling H., 1933. Analysis of a Complex of Statistical Variables into Principal Components. Journal of Educational Psychology, 24:417–441,498–520, 1933

Linting, M., Neurman, J. J., Groenen, P. J., Van Der Koojj, A. J. (2007). Nonlinear principal components analysis: Introduction and application. Physical Methods 12 (3), 336–358.

Jules, T.D., 2017. The regional politics of scale: revisiting the functional aspects of the labour market dualism. Round Table 106, 79–92.

Newman, C., 2017. Development as economic growth, 1956--. Many Faces Socioecon. Chang. 103.

OECD, 2011. Compendium of OECD well-being indicators. Oecd 1–40.
OECD, 2010. OECD regional typology 1–47.
OECD, 2008. Handbook on Constructing Composite Indicators: Methodology and User Guide. Nicoletti, G., Scarpetta, S., &Boylaud, O., 2000. Summary indicators of product market regulation with an extension to employment protection legislation. OECD Economics Department working papers no. 226.
OCSE, 2010. Measuring and Fostering the Progress of Societies, Paper for Council 20April 2010
OECD, 2008. Handbook on Constructing Composite Indicators: Methodology and User Guide, OECD Publishing.
Palmer Fry, B., Agarwala, M., Atkinson, G., Clements, T., Homewood, K., Mourato, S., Rowcliffe, J.M., Wallace, G., Milner-Gulland, E.J., 2017. Monitoring local well-being in environmental interventions: a consideration of practical trade-offs. Oryx 51, 68–76. https://doi.org/10.1017/S003060531500112X
Pearson K., 1910. On lines and planes of closest fit to systems of points in space, Philosophical Magazine, Series 6, vol. 2, no. 11, pp. 559-572
Rocchi, B., Turchetti, S., 2013. Un'analisi della ruralità in Toscana. *QA Rivista dell'Associazione Rossi-Doria*.
Scrivens K. and Iasiello B., 2010. Indicators of Societal Progress: Lessons from International Experiences, OECD Statistics Working Papers no. 4
Sen, A., 1976. Poverty: an ordinal approach to measurement. Econom. J. Econom. Soc. 219–231.
Stiglitz J. E., Sen A., Fitoussi J.P., 2008. Report by the Commission on the Measuring of Economic Performance and Social Progress, 2008 www.stiglitz-sen-fitoussi.fr

Appendix A

Table 2 – Ranking of Italian Provinces according to WBI values and its sub indices – QI and ISI

Rank	Provinces	LDI Value**	LDI_immaterial ***	LDI_material ****	LDI_immaterial % *****	LDI_material % *****
1	Bolzano-Bozen	1,0000	0,848	0,909	0,48	0,52
2	Trento	0,9487	0,911	0,705	0,56	0,44
3	Cuneo	0,9210	0,756	0,901	0,46	0,54
4	Pordenone	0,9151	0,989	0,512	0,66	0,34
5	Verbano-Cusio-Ossola	0,8773	0,678	0,941	0,42	0,58
6	Udine	0,8769	0,964	0,475	0,67	0,33
7	Siena	0,8655	0,913	0,536	0,63	0,37
8	Belluno	0,8580	0,886	0,564	0,61	0,39
9	Sondrio	0,8424	0,598	1,000	0,37	0,63
10	Asti	0,8284	0,841	0,578	0,59	0,41
11	Aosta Valley	0,8266	0,854	0,554	0,61	0,39
12	Cremona	0,8224	0,885	0,495	0,64	0,36
13	Lecco	0,8201	0,822	0,592	0,58	0,42
14	Pavia	0,8109	0,733	0,719	0,50	0,50
15	Verona	0,7959	0,868	0,470	0,65	0,35
16	Bologna	0,7893	0,932	0,353	0,73	0,27
17	Forlì-Cesena	0,7865	0,923	0,362	0,72	0,28
18	Biella	0,7837	0,893	0,405	0,69	0,31

19	Pesaro e Urbino	0,7799	0,831	0,497	0,63	0,37
20	Como	0,7758	0,654	0,777	0,46	0,54
21	Vicenza	0,7721	0,858	0,438	0,66	0,34
22	Treviso	0,7683	0,864	0,420	0,67	0,33
23	Vercelli	0,7677	0,853	0,437	0,66	0,34
24	Novara	0,7639	0,831	0,466	0,64	0,36
25	Alessandria	0,7617	0,844	0,440	0,66	0,34
26	Piacenza	0,7558	0,889	0,355	0,71	0,29
27	Ravenna	0,7389	1,000	0,141	0,88	0,12
28	Padua	0,7297	0,880	0,317	0,73	0,27
29	Turin	0,7293	0,616	0,745	0,45	0,55
30	Lodi	0,7154	0,825	0,379	0,69	0,31
31	Gorizia	0,7097	0,959	0,150	0,86	0,14
32	Brescia	0,7089	0,719	0,537	0,57	0,43
33	Parma	0,7043	0,909	0,220	0,81	0,19
34	Bergamo	0,7035	0,559	0,786	0,42	0,58
35	Reggio Nell'Emilia	0,7009	0,881	0,259	0,77	0,23
36	Genoa	0,6985	0,861	0,286	0,75	0,25
37	Modena	0,6970	0,873	0,265	0,77	0,23
38	Macerata	0,6949	0,773	0,422	0,65	0,35
39	Mantua	0,6907	0,812	0,350	0,70	0,30
40	Pisa	0,6751	0,848	0,260	0,77	0,23
41	Ascoli Piceno	0,6722	0,741	0,428	0,63	0,37
42	Rieti	0,6684	0,606	0,640	0,49	0,51
43	Varese	0,6683	0,714	0,465	0,61	0,39
44	Perugia	0,6683	0,756	0,396	0,66	0,34
45	L'Aquila	0,6676	0,593	0,659	0,47	0,53
46	Florence	0,6622	0,855	0,223	0,79	0,21
47	Ancona	0,6594	0,869	0,196	0,82	0,18
48	Terni	0,6589	0,729	0,421	0,63	0,37
49	Rovigo	0,6336	0,812	0,237	0,77	0,23
50	Arezzo	0,6233	0,760	0,299	0,72	0,28
51	Venice	0,6092	0,848	0,128	0,87	0,13
52	Pistoia	0,6076	0,798	0,207	0,79	0,21
53	Livorno	0,6036	0,717	0,331	0,68	0,32
54	Isernia	0,5954	0,440	0,763	0,37	0,63
55	Grosseto	0,5942	0,642	0,433	0,60	0,40
56	Milan	0,5877	0,887	0,022	0,98	0,02
57	La Spezia	0,5844	0,838	0,095	0,90	0,10
58	Trieste	0,5825	0,895	0,000	1,00	0,00
59	Teramo	0,5791	0,607	0,460	0,57	0,43
60	Savona	0,5748	0,783	0,166	0,83	0,17

61	Lucca	0,5560	0,753	0,176	0,81	0,19
62	Rimini	0,5443	0,810	0,061	0,93	0,07
63	Ferrara	0,5340	0,810	0,040	0,95	0,05
64	Monza and Brianza	0,5313	0,727	0,169	0,81	0,19
65	Imperia	0,5312	0,619	0,345	0,64	0,36
66	Massa-Carrara	0,5110	0,662	0,235	0,74	0,26
67	Potenza	0,4921	0,384	0,648	0,37	0,63
68	Chieti	0,4900	0,544	0,383	0,59	0,41
69	Pescara	0,4849	0,592	0,295	0,67	0,33
70	Prato	0,4709	0,751	0,010	0,99	0,01
71	Benevento	0,4659	0,401	0,568	0,41	0,59
72	Avellino	0,4456	0,403	0,525	0,43	0,57
73	Matera	0,4415	0,330	0,635	0,34	0,66
74	Olbia-Tempio	0,4403	0,389	0,536	0,42	0,58
75	Oristano	0,4400	0,3809	0,549	0,41	0,59
76	Campobasso	0,4379	0,408	0,501	0,45	0,55
77	Viterbo	0,4351	0,504	0,340	0,60	0,40
78	Fermo	0,4331	0,608	0,166	0,79	0,21
79	Salerno	0,3854	0,235	0,677	0,26	0,74
80	Palermo	0,3757	0,352	0,468	0,43	0,57
81	Rome	0,3696	0,441	0,310	0,59	0,41
82	Messina	0,3509	0,361	0,402	0,47	0,53
83	Catania	0,3465	0,285	0,518	0,35	0,65
84	Frosinone	0,3301	0,408	0,285	0,59	0,41
85	Vibo Valentia	0,3239	0,271	0,496	0,35	0,65
86	Latina	0,3128	0,377	0,302	0,56	0,44
87	Trapani	0,3049	0,386	0,270	0,59	0,41
88	Ogliastra	0,2866	0,237	0,476	0,33	0,67
89	Ragusa	0,2695	0,241	0,436	0,36	0,64
90	Nuoro	0,2660	0,3077	0,320	0,49	0,51
91	Enna	0,2659	0,247	0,418	0,37	0,63
92	Medio Campidano	0,2623	0,281	0,356	0,44	0,56
93	Carbonia-Iglesias	0,2621	0,303	0,320	0,49	0,51
94	Cosenza	0,2358	0,112	0,577	0,16	0,84
95	Sassari	0,2338	0,372	0,151	0,71	0,29
96	Catanzaro	0,2277	0,243	0,348	0,41	0,59
97	Agrigento	0,2066	0,227	0,332	0,41	0,59
98	Cagliari	0,2061	0,355	0,123	0,74	0,26
99	Reggio di Calabria	0,2013	0,198	0,369	0,35	0,65
100	Lecce	0,1944	0,213	0,331	0,39	0,61
101	Bari	0,1719	0,276	0,183	0,60	0,40
102	Caltanissetta	0,1566	0,226	0,234	0,49	0,51

103	Caserta	0,1247	0,158	0,281	0,36	0,64
104	Brindisi	0,1193	0,273	0,083	0,77	0,23
105	Siracusa	0,1002	0,221	0,129	0,63	0,37
106	Crotone	0,0840	0,000	0,456	0,00	1,00
107	Taranto	0,0691	0,224	0,062	0,78	0,22
108	Foggia	0,0537	0,072	0,279	0,20	0,80
109	Barletta-Andria-Trani	0,0221	0,155	0,080	0,66	0,34
110	Naples	0,0000	0,044	0,216	0,17	0,83

* Absolute Value of the aggregated WBI

** Standardized Value of the aggregated WBI

*** Values of WBI achieved by taking into account only Quality of life variables

**** Values of WBI achieved by taking into account only Infrastructure and services variables

***** Percentage values explain how both QI and ISI have affected WBI (aggregated value) determination

Addressing rural-urban disparities: A case of government service delivery in Papua New Guinea

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Key Words
Rural disadvantage, access to services, social value, seed funding, Papua New Guinea

Abstract

Papua New Guinea (PNG), a resource rich country, despite many years of positive GDP growth and development efforts, is ranked 157 out of 187 countries on the Human Development Index. Over 80% of the population live in rural areas and have seen very little improvement in living standards since independence in 1975. This paper proposes an alternative, to the usual 'top down' approach, to rural development in PNG, one that engages villagers in improving their own wellbeing, with faith-based organisations and non-governmental organisations as partners in development. The performance of indicators of wellbeing, such as health, access to water and sanitation, education and income generation, between 2000 and 2015, is first reviewed, at national, regional, and village levels, to highlight the rural – urban disparity in access to services. A 'bottom-up' approach to raising rural wellbeing, by creating social value, with private sector involvement, in remote villages and engaging in social entrepreneurship is then outlined. Seed funding would be necessary for this approach to be applied successfully.

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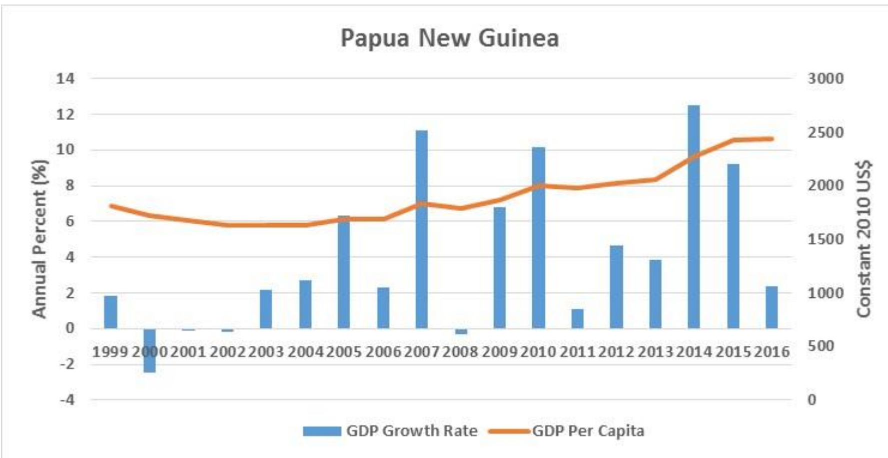
Introduction

Papua New Guinea (PNG), with deep reserves of natural resources, experienced almost 14 successive years of GDP growth from 2003 to 2015 (World Bank, 2018) but failed to meet any of the global targets of the Millennium Development Goals (MDGs). Some national targets were met, indicating moderate progress, mainly due to improvements to service delivery in urban areas (World Bank, 2017b, p. 42). However, 87% of PNGs 8 million population (World Bank: 2017a) are subject to deteriorating conditions in the rural areas in which they live. Now that the Sustainable Development Goals (SDGs) are in place, with a target date of 2030, the question remains whether or not another top-down approach to development can redress conditions in rural PNG by that date. This paper proposes an alternative approach to rural development in PNG, one that engages villagers in improving their own wellbeing, with faith-based organisations (FBOs) and non-governmental organisations (NGOs) as partners in development. The performance of indicators of wellbeing, such as health, access to water and sanitation, education and income generation, between 2000 and 2015, is first reviewed at national, regional, and village levels, to highlight the rural – urban disparity in access to services. A 'bottom-up' approach to raising rural wellbeing, by creating social value, with private sector involvement, in remote villages and engaging in social entrepreneurship is then outlined. Seed funding would be necessary for this approach to be applied successfully.

A review of wellbeing at national level in PNG: 2000 – 2015

At the time of independence in 1975, improving life expectancy, education standards and health delivery suggested that, equitable and sustained development in PNG was achievable

(Manning, 2005). But 40 years later PNG is still categorised as a lower middle income country with a Human Development Index (HDI) ranking of 157 (ACFID, 2015). Graph 1 illustrates PNG's real GDP growth rates and GDP per capita between 1999 and 2016. Notable at the national level are the positive GDP growth rates reflected in the growth in GDP per capita since 2004. With agriculture and resources as main drivers of the economy, benefits from the commodities boom between 2003 and 2011 and the recent opening of the LNG plant in 2014 (World Bank, 2017b) have led to some improvements in various indicators of wellbeing but given rise to other challenges.



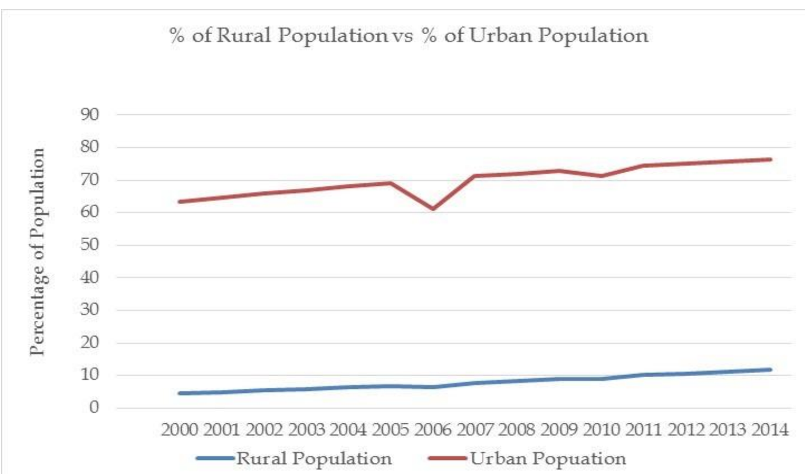
Graph 1. Real GDP growth and Real GDP per capita, 1999 – 2016. (World Bank, 2018)

For instance, the Government is ill prepared to meet the increased demand arising from the introduction of free education, as evidenced by the dearth of resources and teachers in schools across PNG. In addition, the previous lack of Government support for small and medium enterprise development, is likely to result in a scarcity of formal sector job opportunities for an increasing number of school leavers (Hayward-Jones, 2015). Over the period 2000 to 2015, life expectancy improved from 61.5 to 65 years and the national under 5 mortality rate declined from 77.2 to 54.3 per 1000 live births (World Bank, 2018). Despite these improvements, the introduction of free health care in 2014, with no user fees being charged, has created a shortfall in hospital budgets which the government is unable to cover effectively (Cochrane, 2014) and many hospitals are currently struggling to access basic medical supplies (Tahane, 2017). Further, access to improved water and sanitation facilities at the national level changed little between 2000 and 2015 and is described as the lowest among countries not just within the region, but in the world (Horwood et al, 2013, p. 103).

PNG is also experiencing acute energy poverty (Sovacool, 2013, p. 328) with only 20% of its entire population having access to electricity in 2017 (World Bank, 2018). The logistics performance index (where 1 = low and 5 = high), which rates the quality of trade and transportation related infrastructure, is currently 2.3 for PNG (World Bank, 2018), low by world standards and a hindrance to rural development, as 'employment opportunities have to be clearly targeted at disadvantaged areas' (Starkey and Hine, 2014, p. 5). Before 2007 telephony was restricted to a limited number of people in urban areas of PNG. Since then, with the introduction of market competition, its mobile telecommunications sector has been transformed (Watson and Duffield, 2016, p. 27). By 2016 the mobile telephone subscriptions of 48.56 per 100 people exceeded the fixed telephone subscriptions of 19.98 per 100 people (World Bank, 2018). The macroeconomic statistics described above indicate some improvement over time, yet they mask a vast disparity between urban and rural areas in PNG. With 87% of the population residing in rural areas it is imperative to disaggregate this rural-urban divide to assess the effectiveness of development measures undertaken in PNG.

A review of wellbeing at the rural level in PNG: 2000 - 2015

PNG's cultural and linguistic diversity stems from its '1000 distinct ethnic groups and 800 plus languages' (World Bank, 2017a). Additionally, the geographical diversity that characterises PNG is a major cause of stagnant economic conditions in many villages, especially in mountainous and rugged territory, which are isolated by fragmented and poorly maintained transport networks, preventing access to basic services (Gibson and Rozelle, 2003, pp. 159-160; Allen et al., 2005, pp. 201-202) and limiting opportunities for income generation. Responsibility for the provision of services in rural PNG is devolved to provincial governments, with some functions decentralised further to district and local levels. Differing management styles and cultural differences between provincial, district and local levels also create considerable difficulty in providing services effectively (Hayward-Jones, 2015). Further hampering the provision of services is the scarcity of accurate data. Most rural data are based on estimates due to the inaccessibility of many villages. For instance, much of the data used for modelling estimates to assess progress towards the MDGs for water and sanitation were based on 3 surveys carried out in selected villages in 1996, 2006 and 2010 (WHO-UNICEF, 2017). Moreover, different villages were used to track any improvements resulting from MDG programs between 2011 and 2015, exacerbating rural data consistency problems. Thus, any review of the effectiveness of development programs undertaken in rural PNG cannot address all the indicators reviewed at the national level. Despite these issues a sufficient picture of wellbeing in rural areas of PNG can be established for some of the indicators.



Graph 2: PNG - Access to electricity 2000 - 2014 (World Bank, 2018)

For example, many villages on the periphery of provincial towns benefitted from the expansion of the mobile phone industry. Also, as noted in Graph 2, the percentage of the rural population with access to electricity more than doubled between 2000 and 2014, from 4.57% to 11.89%. However, the graph highlights the persistent inequity as access to electricity of the urban population increased from 63.31% in 2000 to 76.35% in 2014. The rural-urban inequity is also evidenced by the percentages of rural and urban populations with access to water services and sanitation facilities in Table 1. These data underline not only the disparity in the provision of services to urban and rural areas but also the lack of significant improvement in 15 years. Considering the geographical diversity of rural PNG, it should be noted that the information in Table 1 is based on modelled estimates (WHO UNICEF, 2017).

As a percentage of rural/urban populations.	2000 Rural	2000 Urban	2015 Rural	2015 Urban
Drinking water estimates in PNG				
Basic	29	84	29	84
Limited >30 minute walk	1	4	1	4
Unimproved (not protected)	21	8	21	8
Surface	48	4	48	4
Improved water supplies (protected from contamination)				
Accessible on premises	16	43	16	43
Available when needed		80		80
Piped	13	71	13	71
Non piped	18	17	18	17
Sanitation estimates in PNG				
Basic	13	55	13	55
Limited (shared)	3	9	3	9
Unimproved (not protected)	70	32	70	32
Open defecation	14	4	14	4
Improved sanitation facilities excluding shared (protected from human contact)				
Wastewater treated	0	11	0	11
Latrines & other	11	14	11	14
Septic tanks	1	21	1	21
Sewer connections	1	20	1	20

Table 1: Access to water services and sanitation facilities. (WHO UNICEF 2017)

Thus, focus at a micro-level is essential when determining the need for and effectiveness of development programs aimed at improving wellbeing in PNG. Moreover, a review of village living conditions can provide an illustrative guide to the challenges that are faced by rural communities in accessing basic services which are taken for granted in urban areas.

A review of wellbeing in a PNG village: 1999 - 2017

Buansing is a coastal village in Morobe, a Province of PNG, with mountainous and rugged territory encircling the village on its land-side preventing the construction of roads or access to electricity. Neighbouring villages such as Laukanu, Busama and Salamaua can be accessed only by banana boat (a dinghy with an outboard motor) or canoe. Lae, the administrative capital of Morobe, is approximately 2.5 hours from Buansing and also accessed only by banana boat. Four clans inhabit the village and in 1999 there were 64 households whose size varied from one to fourteen members, due to insufficient means to build new homes. The authors interviewed 31 of these 64 households on the provision of and their access to basic services. The interviews were based on a semi-structured questionnaire. Two follow-up interviews were conducted, with a group of village elders in 2009 and village residents in February 2018, to track improvements in services provided and access since 1999.

In 1999, all of the households in Buansing were engaged in subsistence agriculture. Further, 60% of the sample surveyed stated that they engaged in fishing only when subsistence food was in short supply. Sales of artefacts and surplus food at the main market, in Lae, were limited due to the prohibitive price of fuel for travel to the market by banana boat. As opportunities for income generation were scarce in the village, participation in the cash economy was limited and villagers mainly relied on barter, even to travel to Lae. Clan members residing in Lae or elsewhere assisted with processed food and cash when required for purchases from the trade store, or for education and health related expenses. The location and geographic conditions of Buansing are indicative of the difficulty that many rural villages in PNG face in accessing markets for selling surplus subsistence food or accessing towns for income generation purposes. Villagers were reluctant to access health services in neighbouring villages or Lae, citing the cost of transport and medical fees as impediments. It was also stated that local residents in Laukanu and Salamaua were given preference in treatment to Buansing residents. Students who successfully completed grade six had the option of moving to Salamaua High School. However, the lack of money for boarding school fees, homesickness or senior students' bullying resulted in very few students from Buansing getting a secondary education.

The 2009 interviews of the Buansing village elders were conducted by one of the authors. The interviews revealed that income generation opportunities had improved, but only sufficiently to offset the increase in the cost of living. With an increase in the number of supermarkets and the demand for fresh fish in Lae, fishermen had progressed to purchasing blocks of ice from Lae for transporting their catch. The ice lasted for approximately 5 to 6 days in portable coolers but the fishermen still had to contact and meet the supermarket representatives close to the main wharf to make the sale. One villager owned a mobile phone, which, with no reception in Buansing, was used on arrival in Lae to contact buyers. Health services had improved in Laukanu and Salamaua. However, the price of petrol had tripled since 1999. These improvements did not benefit the Buansing residents for the same reasons cited before. Any improvement in living standards experienced by individual households in the village between 1999 and 2009 was due more to their own ingenuity rather than government intervention. One hamlet now had constant access to water transported from a mountain spring nearby via pipes constructed with bamboo. The main village still had limited access to water having to walk more than 30 minutes. According to one of the elders, the low levels of literacy and education were major drawbacks in initiating improvements in the village. One major improvement occurred in 2008. The Buansing school was upgraded and students could continue living at home to attend grades 7 and 8, rather than move to Salamaua, thus reducing the cost of education. Additionally, the upgrade gave an opportunity for more female students to proceed to higher levels of attainment.

Category	1999	2009	2018
Village Households	64	Approximately 90	Approximately 160
Income Generation			
Wage Labour Village	None (58% of sample subsistence agriculture only)	None- subsistence agriculture Only- no data)	None- (subsistence agriculture only - no data)
Lae (Main Town)	3	3	Increased (data not verifiable)
Trade store income	3 families	8 families	6 families (data not verifiable)
Sale of artefacts	10% of sample: sales in Lae	No data	Sale of fermented cacao and processed lime in Lae. Items purchased in Lae and sold in Buansing.
Sale of surplus food Sale of smoked fish	Once/month. Markets in Laukanu and Salamaua	No change in access to markets.	
Sale- fresh fish (Lae)	No	Yes. Increased.	Big fish only. Reduced
Trade stores	3 (semi-permanent structures)	8 (semi-permanent structures)	6 (data not verifiable)
Markets	Lae main market, Laukanu and Salamaua	Lae Market and Supermarkets, Laukanu and Salamaua	Lae markets only. Laukanu inaccessible - tribal conflict.
Communication	Messages through boatman.	1 cell phone but no coverage.	More cell phones - reception poor
Transport	Banana boat (1), Canoes (80% of sample.	Banana boat (increased to 4 then 1 in 2009), Canoes (increased no data)	Data not verifiable. Increased fuel costs (K40 per litre) and freight (K30 per bag).
Health Services **Nurses/Doctor**	Laukanu aid post (closest) Salamaua Health Centre Angau Hospital in Lae Buansing – No health service	In operation In operation In operation No change	Currently no access to Laukanu, poor service in Salamaua and Lae, shortage in medical supplies. Resident nurse in Buansing – inactive no supplies.
Education	Primary School – Grade 1 - 6 Principal & 2 Teachers	Added Grades 8 (2008) School Principal & 3 Teachers (2007)	No change; Teachers no data
Water **Sanitation**	Walk to water source > 30 min. Bush/sea. 1 broken pit toilet.	No change for main village. Piped (bamboo) water in 1 hamlet. Semi-permanent open pit in 1 hamlet.	No change since 2009 No change Few semi- permanent open pits.

Table 2: An illustration of access to services in a rural village in Papua New Guinea – Buansing. 1999 – 2017
(Source: Based on interviews conducted by the authors 1999, 2009, 2018)

The follow up interviews in 2018 were conducted by the same author who conducted the 2009 interviews, except that the interviews took place in Lae. As such, much of the data could not be verified. However, the anecdotal evidence collected was sufficient to indicate that little had changed in nearly 20 years to improve the lives of the Buansing people. With an increase in population the number of households was now approximately 160. No improvement was reported in access to education services in the village. Six students from Buansing moved to Salamaua to attend secondary school in 2017. A resident nurse had been appointed to Buansing but currently has no access to medical supplies. The aid post in Laukanu is also currently inaccessible due to tribal conflicts. One notable improvement was the introduction of cacao as a cash crop and the construction of a fermentary using mainly natural resources available in Buansing. Consequently, reliance on relatives in the city for supply of processed food and cash has reduced considerably. Villagers also depend on the sale of lime, processed from coral, at the Lae market. Overall, the impact of these activities on household income levels was considered marginal due to increases in the cost of living, especially for the transport of goods and travel to the Lae market. Cell phone usage has increased in Buansing though reception is poor unless the residents access higher ground. Fishermen now transport their fish, still in portable coolers, straight to the supermarkets in Lae. Only large fish are transported to Lae and fishing ventures have reduced with no possibility of sale of smaller fish. There were no improvements reported in the access to water and sanitation, except for a few more semi-permanent open pits constructed from readily available bush material. There appears to be no real acceptance of the concept of the need for better sanitation. Table 2 summarises the progress of selected indicators of wellbeing in Buansing between 1999 and 2017.

Discussion

The geographical diversity in PNG, as established in the Buansing study, partially explains the failure of public spending by national and regional government agencies in reaching isolated villages. With customary ownership of land by the 1000 plus tribes, only 3% of land, the open sea and mineral resources are under state ownership (Sakata and Prideaux, 2013, p. 884). The unique geographic nature and cultural diversity of PNG means there is no 'one size fits all' solution that can be applied to development from the 'top down', reflected in the lack of improvement in indicators of wellbeing in rural PNG. Evidence exists that approaches initiated from the bottom-up work better in indigenous communities as it allows for community participation and ownership of developments at village level (Fraser et al, 2005). Such a community-level approach is also culturally more acceptable as it can be applied with consideration to individual differences in culture and geography between villages and communities. Applications of this 'bottom up 'approach in commercial (O'Brien and Ponting: 2013) and conservation (Benson, 2012; Ancrenaz, 2007) contexts in PNG have proved successful. Even when applied to the 'amenity poor remote' Waluma community, where external assistance for a conservation project was limited solely to an advisory capacity, this approach still proved successful (Sakata and Prideaux, 2013, p. 880). These examples, of 'bottom-up' development measures making positive change, imply that such measures can be extended to other rural, particularly remote, villages that are poorly integrated in the 'top down' service provision structures of the provincial government.

A lack of literacy, skills and monetary resources underlie the lack of self- initiated improvements in living conditions in most villages. Mainstream churches, other FBOs and NGOs have engaged in social entrepreneurship for many decades, by providing products and services, addressing the needs of rural communities (Seelos and Mair, 2005; ACFID, 2015). For instance, many rural health centres in PNG are church run facilities (Razee et al., 2012). In Buansing, concerns about social, health, education and economic issues are often raised following church services. Also, the Iwal Lutheran parish council is represented at Lutheran district meetings where issues beyond spiritual life are discussed. Iwal speaking women too have a voice through the Lutheran church, acting as an important link between district meetings and their community in Buansing. The rural population is somewhat cynical about government agencies, given their experience of the political system in PNG. Conversely, churches have historically played a crucial role in the social fabric of village life and done so in a culturally acceptable manner, substantiated by the continued trust and influence churches enjoy in rural areas (Pelto, 2007).

Similarly, apart from their projects for the conservation of natural resources and engaging the local community in its management, NGOs are seen to be in a 'unique position' to liaise between the rural communities and the private sector (ACFID, 2015, 19). As such the NGOs in PNG are well positioned to engage with established businesses within the provinces and urge them to assume responsibility for these marginalised communities and encourage novel ways of creating social value (ACFID, 2015; Seelos and Mair, 2005). Further, remote rural communities are unable to engage freely in the cash economy without readily available income generating opportunities, which could take a while to be established. Thus, private sector involvement in social value creation is crucial in the initiation of social entrepreneurship, especially within these remote villages. As indicated before, women, through their involvement in FBOs, grassroots community organisations and NGOs are a driving force within their communities (Dickson-Waiko, 2003). However, without rapid change in social and cultural attitudes at village level (ACFID, 2015), most rural women will continue as silent partners in development through their involvement in local community organisations. FBOs, viewed as an integral part of the local community, have proven to be influential in changing attitudes (Pelto, 20007). Until then, a challenge at community level would be identifying projects, that create social value in a village, where women's willingness to engage in social development could be harnessed without trespassing on men's territory. A challenge for NGOs in initiating projects would be to earn community support (Bond et al., 2015) without raising community expectations of material benefits (Benson, 2012). A partner agency would need to 'demonstrate the effectiveness' of a project in improving lives (Stilltoe, 2010), to gain the support of men and thereby community acceptance.

NGOs and FBOs are already engaged in building and supporting social infrastructure and delivering capacity development at grass roots level. The PNG government implicitly accepts the social value creation by these organisations but does not explicitly include them as partners in development. Organisations such as ACFID (2015, 19) have voiced the need for 'Australian bilateral aid' to reach the 'underserved' in rural communities. International aid agencies and governments have spent an enormous amount of resources on rural development projects in PNG, with the expectation that a portion of this aid would flow through the provincial structures to remote villages and improve service delivery. From the PNG government's perspective, effective delivery of services to rural areas was the prime purpose of the reforms to the provincial structures, which came into effect completely in 1997 (Matbob, 2006). However, these provincial structures and aid received so far appear to have addressed only the needs of the urban and peri urban areas of the provinces.

Recommendations and limitations

As a first step remote villages that are not well integrated in the provincial structure need to be explicitly identified for an assessment of their current levels of access to services. Peri urban and other rural villages already integrated in the provincial structure should continue to be served by the provincial government.

Ideally in a bottom up approach to development, the role of the mainstream churches, FBOs and NGO should be formalised to support the local community in an advisory capacity in initiating ideas for improving wellbeing from within the community. This would enable villages to take advantage of the institutional features of these organisations, which are often adept at lobbying regional or national governments on behalf of local communities, for the provision of required infrastructure, education or health facilities. However, garnering political support for formal recognition of these agencies as partners in development may be difficult. Cooperation between the agencies active in a village if encouraged would improve their effectiveness in assisting the villagers in identifying, addressing, and improving village conditions. It would also increase the effectiveness of lobbying for the provision of infrastructure to access markets, which the community may not be able to effectively address themselves. This would improve income generating opportunities and access to education and health services.

Providing mainstream churches and FBOs support for training programs could address the domestic violence issues (ACFID, 2015), and initiate a change in cultural attitudes of men towards women, which are of concern both to the people of PNG and international donor agencies. This could increase community participation in projects that create social value. Training for capacity development at community level would be essential for the construction of infrastructure, once a relevant project is identified, and for maintaining it on an ongoing basis. Wherever possible the use of natural resources readily at hand should be encouraged, not only for bio diversity conservation purposes but also to make ongoing maintenance financially viable for the community.

Some projects would require seed funding at its initial stages for specific training, specialist advice on biodiversity conservation or for material inputs. Others may require more financial support. External aid agencies are best placed to set up a fund for such purposes and require accountability, together with the provincial government, from the NGOs and FBOs managing the projects. Encouraging the private sector to contribute and assume co-ownership, thus ensuring ongoing maintenance, is essential. However, the community should be encouraged to assume primary ownership of the infrastructure and its maintenance, where able to, financially or otherwise.

Many foreign and local NGOs cease operations due to a lack of funding. Aid agencies could ensure that the NGOs are adequately funded to continue their programs until the capacity of the rural community is sufficiently developed to maintain and improve the systems established. The external aid agencies could also use the presence of the NGOs and FBOs to address the crucial need for accurate data collection, a serious limitation in estimating social indicators. Often, whatever little data collected is not accessible on a public domain and not analysed systematically (Mola and Kirby, 2013).

Concluding comments

Ultimately, it is the responsibility of the PNG government to ensure equitable growth. Nevertheless, it is also the responsibility of the aid agencies to ensure that project funding is pro-poor and reaches marginalised areas. These aid agencies cannot exhort the PNG government to include the mainstream churches, other FBOs and NGOs in their provincial structure as partners in development. However, the aid organisations themselves could explicitly recognise the strengths of these agencies as mediators between the local communities and the top down provincial structure, thus ensuring that the interests of the donors are also met.

Finally, the rural population would benefit the most from this ‘bottom up’ approach, as it can account for the distinct traditional lifestyles and differing needs of any local community in PNG. This approach could be launched immediately with the support of these agents of change and the aid agencies, thus compelling the government to address the shortcomings of the provincial structure of decentralised service delivery. Access to already existing services could be improved, after identifying gaps in the provision of services, with effective lobbying. Communities, where churches or NGOs are already present, in remote villages could initiate this ‘bottom up’ solution. Alternatively, external development agencies, as donors, could mobilise these agents of change to identify the gaps, starting with remote villages, and support them in addressing these gaps where possible at community level. Conclusively, a ‘bottom up’ rather than a ‘top down’ approach in identifying the ‘needs’ that have to be met by each community permits ‘freedom of choice’ for individual communities to determine their own pace of development.

References

ACFID, 2015. *Inquiry into the delivery and effectiveness of Australia's bilateral aid program in Papua New Guinea* March 2015. Available at:
https://acfid.asn.au/sites/site.acfid/files/resource_document/PNG-submission-FINAL-2015.pdf

Allen, B., Bourke, R.M. and Gibson, J., 2005. Poor rural places in Papua New Guinea. *Asia Pacific Viewpoint*, *46*(2), pp.201-217.

Ancrenaz, M., Dabek, L. and O'Neil, S., 2007. The costs of exclusion: recognizing a role for local communities in biodiversity conservation. *PLoS Biology*, *5*(11), p. e289.

Benson, C., 2012. Conservation NGOs in Madang, Papua New Guinea: understanding community and donor expectations. *Society & Natural Resources*, *25*(1), pp.71-86.

Bond, M., Tyndale-Biscoe, P., Clark, K., Francis, N., Nott, T., Galing, K. and Blackett, I., 2015. The sustainability of rural water, sanitation and hygiene In Papua New Guinea. *Water: Journal of the Australian Water Association*, *42*(6), p.42.

Cochrane, L., 2014. PNG free health care likely to make a dire situation worse, say researchers, *ABC News* 30 October, 8:09 pm. Available at: http://www.abc.net.au/news/2014-10-30/png-free-health-care-likely-to-make-a-dire-situation-worse/5855018

Dickson-Waiko, A., 2003. The missing rib: mobilizing church women for change in Papua New Guinea. *oceania*, *74*(1-2), pp.98-119.

Fraser, E.D., Dougill, A.J., Mabee, W.E., Reed, M. and McAlpine, P., 2006. Bottom up and top down: Analysis of participatory processes for sustainability indicator identification as a pathway to community empowerment and sustainable environmental management. *Journal of environmental management*, *78*(2), pp.114-127.

Gibson, J. and Rozelle, S., 2003. Poverty and access to roads in Papua New Guinea. *Economic development and cultural change*, *52*(1), pp.159-185.

Hayward-Jones, J. 2015. *Papua New Guinea in 2015 – At a crossroads and beyond,* Lowy Institute for International Policy, Available at: https://www.lowyinstitute.org/sites/default/files/papua-new-guinea-in-2015-at-a-crossroads-and-beyond.pdf

Horwood, P.F., Barrington, D.J. and Greenhill, A.R., 2013. More resources need to be committed to the provision of safe water sources and sanitation in Papua New Guinea. *Papua New Guinea Medical Journal*, *56*(3/4), pp.103-109.

Manning, M., 2005. Papua New Guinea thirty years on. *Pacific Economic Bulletin*, *20*(1), pp.145-58.

Matbob, P., 2006. The challenges of the provincial governments system in PNG: the need for strengthening decentralization. *Contemporary PNG Studies*, *4*, p.1.

Mola, G. and Kirby, B., 2013. Discrepancies between national maternal mortality data and international estimates: the experience of Papua New Guinea. *Reproductive health matters*, *21*(42), pp.191-202.

O'Brien, D. and Ponting, J., 2013. Sustainable surf tourism: A community centered approach in Papua New Guinea. *Journal of Sport Management*, *27*(2), pp.158-172.

Pelto, M., 2007. Civil society and the national integrity system in Papua New Guinea. *Pacific Economic Bulletin*, *22*(1), pp.54-69.

Razee, H., Whittaker, M., Jayasuriya, R., Yap, L. and Brentnall, L., 2012. Listening to the rural health workers in Papua New Guinea–the social factors that influence their motivation to work. *Social science & medicine*, *75*(5), pp.828-835.

Sakata, H. and Prideaux, B., 2013. An alternative approach to community-based ecotourism: a bottom-up locally initiated non-monetised project in Papua New Guinea. *Journal of Sustainable Tourism*, *21*(6), pp.880-899.

Seelos, C. and Mair, J., 2005. Social entrepreneurship: Creating new business models to serve the poor. *Business horizons*, *48*(3), pp.241-246.

Sovacool, B.K., 2013, June. Energy poverty and development in Papua New Guinea: learning from the teacher's solar lighting project. In *Forum for Development Studies* (Vol. 40, No. 2, pp. 327-349). Routledge.

Starkey, P. and Hine, J., 2014. Poverty and sustainable transport: How transport affects poor people with policy implications for poverty reduction. A literature review. *UN-Habitat and The Overseas Development Institute (ODI) and SLoCaT*.

Sillitoe, P., 2010. Trust in development: some implications of knowing in indigenous knowledge. *Journal of the Royal Anthropological Institute*, *16*(1), pp.12-30.

Tahane, J., 2017, 'The hospital is out of everything': PNG crippled by drug shortage, *RNZ News* 15, June, 10:06 am. Available at: https://www.radionz.co.nz/international/pacific-news/333197/png-drug-shortage-the-hospital-is-out-of-everything

Watson, A.H. and Duffield, L.R., 2016. From garamut to mobile phone: Communication change in rural Papua New Guinea. *Mobile Media & Communication*, *4*(2), pp.270-287.

WHO-UNICEF, 2017. WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene. Available at: https://washdata.org/data#!/png

World Bank, 2017a. The World Bank in Papua New Guinea: Overview April 2017. Available at: http://www.worldbank.org/en/country/png/overview

World Bank, 2017b. *Papua New Guinea Economic Update: Reinforcing Resilience* December *2017.* Available at: http://pubdocs.worldbank.org/en/150591512370709162/PNG-Economic-Update-Dec-2017.pdf

World Bank. (2018) World Development Indicators [Online]. Available at:
http://databank.worldbank.org/data/reports.aspx?source=world-developmentindicators. (Accessed: 20 -30 January 2018).

Housing finance market and economic growth of west africa region: a study of Nigeria, Ghana and Gambia

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Housing Finance, Mortgage Loan, and Economic Growth

Abstract

The aim of this study is to investigate the effect of housing finance on economic growth of West African States while the specific objectives were to: analyze the contributions to housing finance by mortgage banks on the economic growth of Nigeria, examine the impact of aggregate housing finance on economic growth of Ghana among others. Secondary data were used, covering the period of 1985-2014 while the ex-post facto research design was adopted. The data gathered were analyzed using Ordinary Least Square Regression Method. The findings revealed that the housing finance markets in Nigeria, Ghana and Gambia are under developed. The contributions to housing finance both Mortgage banks and Commercial banks on economic growth of Nigeria are positive but not statistically significant. On the contrary houses are built through self-help and on incremental basis in Ghana. As a result the economic values of such houses are not included in the National Income Account of the country. Hence the impact of the market on economic growth of Ghana was insignificant at 0.5 percent. In Gambia the market is almost non-existence due to wide spread poverty and high interest lending rate. We recommend that the government of West African States should create an enabling environment so as to attract both local and foreign investors to utilize the opportunities that abound in the housing and housing finance sector. To the best of our knowledge, a study of this nature that cut across Nigeria, Ghana and Gambia in the area of Mortgage financing has not been done and this is the gab our study fill in knowledge.

Introduction

Housing finance market is a formal institutional arrangement whereby individual, corporate entity and Developer obtain mortgage loan for the construction or purchase of a housing unit, shopping centers or Real Estate. The property is used as collateral for the loan applied for. Interest in the market is usually lower than what is obtainable in a conventional financial market and the time period ranges from ten years to thirty years duration.

One of the indices for accessing the level of economic growth of a nation is adequate housing. In a country where the majority of the people live in slum, such a country is classified as under – developed. The role of housing in growth and development is so vital that government all over the world make provisions for adequate housing of her citizens, the West African region inclusive. It has been argued that housing encompasses not only the physical building but include the available utilities and the siren environment, which make life comfortable (Boamah, 2010).

Several studies have revealed that the construction of a house is capital intensive and it represents the highest investment of most households. The consequence of the capital nature of housing is the shortage of affordable housing units throughout the countries of West African. It is estimated that Nigeria has a short fall of 17 million housing units, Ghana 1.7 million CAHF (2013), Gambia 50,000 units CAHF, (2015). A robust housing finance market is needed across the region in order to meet these shortages of housing units. A dynamic housing finance market will supply the need finance to individuals, corporate entities and developers. Housing is a longtime investment and the financing is usually beyond the reach of not only individuals but corporate entities and developers as well. Only a few proportion of the society can build a house of their choice out of personal income. Okonjor – Iwuala (2014), asserted that housing and housing finance has been a tool for rapid economic growth and development in the developed economies. This is due to its multiplier effects and inters – relationship with other sector of the economy. The building of a single housing unit is capable of providing employment for over 10 people. These include architect, structural engineer, bricklayer, meson electrician, plumber, building material dealers etc.

The huge housing units deficits in West Africa is an indication of the investment potentials in the sector. A proper harnessing of these potentials will place the region on the part of sustainable economic growth. I t is in line with these that the general objective of this studies is to determine the effect of housing finance market on growth of West Africa region, while the specific objectives are to: analyze the effect of contributions to housing finance to economic growth of Nigeria by mortgage banks.

- Examine the effect of the contributions to housing finance by commercial banks on economic growth of Nigeria.
- determine the effect of the aggregate housing finance on economic growth of Ghana
- ascertain the effect of the aggregate housing finance on economic growth of Gambia

The novelty of this research could be seen from the following angles:
Firstly, there are few studies on housing finance market in West Africa and secondly, most of these researches are on access to housing finance by small and medium income earners. To the best of our knowledge there is no known study on the impact of housing finance market on economic growth of West Africa region.

2. Review of Related Literature

According to Aigbokhan (1995), Economic growth means an increase in the average rate of output produce per person usually measured on a per annum basic. It is also the rate of change in national output or income in a given period. Economic growth is the increase of per capital gross domestic product (GDP) or other measure of aggregate income. It is often measured as the rate of change in real GDP. Economic growth refers only to the increase in the quantity of goods and services produced. Gujarati (2002) defines economic growth as an increase in real gross domestic product (GDP). That is, gross domestic product adjusted for inflation. The growth can either be positive or negative. Negative growth can be referred to by saying that the economy is shrinking. This is characterized with economic recession and economic depression. Ullah and Rauf (2013) noted that whenever there is increase in real GDP of a country it will boosts up the overall output and we called it economic growth. The economic growth is helpful to increase the incomes of the society, help the nation to bring the unemployment at low level and also helpful in the deliveries of public services.

The role of housing finance in the acceleration of economic growth of nations has been acknowledged worldwide, especially in the developed economics. IMF (2011) posits that the importance of housing finance could be seen through housing market booms usually ''followed by busts have been associated with financial instability and significant costs to the economy in many countries over the years''. They argued that the global financial crisis of 2007-2009 was occasioned by excessive subprime lending in the US. The crises quickly spread to other parts of the world such as Ireland, United Kingdom and Spain, causing financial instability.

Likewise Reinhart and Rogott (2009) showed that the six major historical episodes of banking crisis in advanced economies since the mid – 1970s were all associated with a housing boost. They document that this pattern can also be found in many emerging market crises, including the Asian financial crisis of 1977-98, with the magnitude of house price decline being broadly similar in both advance and emerging market economies.

Furthermore, Oyalowo (2012), examined the constraints limiting lending institutions' participation in housing finance supply in West Africa region. It also examines how governments across West Africa can tackle these constraints. The study used a regression analysis of secondary data related to factors necessary for lending institutions' participation in formal housing finance supply. The ratio of the private credit to GDP of West Africa countries between 2008 and 2010 was regressed against the independent variables inflation rate, procedures to register property, time to register property, cost of register property, strength of legal right index and dept. of credit information system. Similarly, Isa, Jimoh and Achuuenu (2013) posit that the housing sector has a multiplier effect. In most developed economics, the housing sector is seen as an important sector for stimulating economic growth.

According to CAHF (2015), housing finance markets are developing in scale and diversity across Africa, creating opportunity for investor and practitioners, and promoting a new category for economic growth. One of the factors responsible for the growth of the market is growth in population and rural – urban migration. Consequently, the growth in population in many cities in West African countries has created demand for new housing. Hence West African housing finance markets is said to be dynamic and growing.

2.2 Methodology

The data for this study were drawn from Central Bank of Nigeria Statistical Bulletin, World Bank data base and Centre for Affordable Housing Finance in Africa – Africa Housing Finance year-books 2013 and 2015. The ex-post facto research design method was adopted in this research.

Model specification

This work is modeled after Oyalowo (2012) who studied housing market constrains in West African Region. The classical linear regression method was employed in the analysis of data which according to Gujarati and Porter (2009) is stated thus:

$Y = \alpha_o + \alpha_1 X_{1t} + \alpha_2 X_{2t} + \ldots \alpha_n X_{nt} + e_t$ ….. eqn (1)

Where Y = Dependent variables

α_o = Intercept

$\alpha_1, \alpha_2, \ldots \alpha_n$ = Scope or co-efficient of the parameter estimates

$X_1\ X_2 X_n$ = Independent variables

e = Stochastic error term

The generalized model for this study is written thus:

$\Delta RGDP_t = \alpha_0 + \alpha_1 MHFK_t + \alpha_2 CHFK_t + \alpha_3 IR_t + e_t$ ----- eq(2)

Where $\Delta RGDP_t$ = change in Real GDP which is a proxy for economic growth

α_o = Intercept

$\alpha_1, \alpha_2, \alpha_3$, = Scope of or co-efficient of the parameter estimates

$MHFK_t$ = Mortgage Housing Finance in Nigeria

$CHFK_t$= Commercial Bank Housing Finance in Nigeria

IR_t = Interest rate used as a control variable

e_t = error term

The model is disaggregated to be able to test all the hypotheses and it will be rewritten thus:

Hypotheses 1 and 2

$\Delta RGDP_{Nt} = \alpha_o + \alpha_1 MBOHL_{Nt} + \alpha_2 CBOHL_{Nt} + \alpha_3 IR_t + e_t$ -----(3)

None inclusion of Ghana and Gambia in the Model

The countries of Ghana and Gambia were excluded from the model due to non-availability of sufficient quantitative data in these countries. Consequently, research questions will be used in discussing the two countries.

2.2 Data Presentation and Interpretation

TABLE 1:Nigeria Housing Loans and Other Variables Under Study (₦Billions) 1985 - 2014

YEAR	TOL	TOCBL	CBOHL	MBOHL	TOHL	GDP	THLPTL	THLPGP
1985	12.17020	12.17020	2.493700	0.000000	2.493700	134.5856	20.49021	1.852873
1986	15.70160	15.70160	2.840400	0.000000	2.840400	134.6033	18.08988	2.110201
1987	17.53190	17.53190	2.892400	0.000000	2.892400	193.1262	16.49793	1.497674
1988	19.56120	19.56120	3.007900	0.000000	3.007900	263.2945	15.37687	1.142409
1989	22.00800	22.00800	3.226700	0.000000	3.226700	382.2615	14.66149	0.844108
1990	26.00010	26.00010	3.210800	0.000000	3.210800	328.6061	12.34918	0.977097
1991	31.30620	31.30620	3.573200	0.000000	3.573200	545.6724	11.41371	0.654825
1992	42.94570	42.73680	4.059400	0.208900	4.268300	875.3425	9.938830	0.487615
1993	66.00000	65.66530	5.405200	0.334700	5.739900	1089.680	8.696818	0.526751
1994	94.74420	94.18390	0.000000	0.560300	0.560300	1399.703	0.591382	0.040030
1995	144.9645	144.5696	0.000000	0.394900	0.394900	2907.358	0.272412	0.013583
1996	170.1919	169.4371	0.000000	0.754800	0.754800	4032.300	0.443499	0.018719
1997	386.2885	385.5505	0.000000	0.738000	0.738000	4189.250	0.191049	0.017617
1998	273.6814	272.8955	0.000000	0.785900	0.785900	3989.450	0.287159	0.019699
1999	323.6891	322.7649	0.000000	0.924200	0.924200	4679.212	0.285521	0.019751
2000	509.1573	508.3022	0.000000	0.855050	0.855050	6713.575	0.167934	0.012736
2001	797.1894	796.1648	0.000000	1.024646	1.024646	6895.198	0.128532	0.014860
2002	961.2294	954.6288	0.000000	6.600618	6.600618	7795.758	0.686685	0.084669
2003	1222.929	1210.033	0.000000	12.89556	12.89556	9913.518	1.054481	0.130081
2004	1525.243	1519.243	0.000000	6.000000	6.000000	11411.07	0.393380	0.052581
2005	1978.811	1976.711	0.000000	2.100000	2.100000	14610.88	0.106124	0.014373
2006	2531.858	2524.298	0.000000	7.560000	7.560000	18564.59	0.298595	0.040723
2007	4854.248	4813.489	0.000000	40.75940	40.75940	20657.32	0.839665	0.197312
2008	7907.932	7799.400	466.8007	108.5315	575.3322	24296.33	7.275382	2.367980
2009	9030.730	8912.143	778.1404	118.5869	896.7273	24794.24	9.929733	3.616676
2010	7839.307	7706.430	670.3048	132.8761	803.1809	33984.75	10.24556	2.363357
2011	7435.539	7312.726	453.5036	122.8128	576.3164	37409.86	7.750836	1.540547
2012	8270.936	8150.030	539.7598	120.9054	660.6652	40544.10	7.987792	1.629498
2013	10137.89	10005.59	726.9216	132.2917	859.2133	42396.77	8.475271	2.026601
2014	12937.10	12889.42	556.1929	47.68000	603.8729	44507.88	4.667760	1.356777

Sources:2014 Monthly Bulletin, Central Bank of Nigeria - Statistical Bulletin 2014

The World Bank: http://data.worldbank.org

Centre for Affordable Housing Finance in Africa-Africa Housing Finance Yearbook 2012, 2013 and 2015

Data presented on table 1 are housing finance data on Nigeria Economy. The data are total outstanding loans and the component for the housing sector in Nigeria. These loans are presented in billion of Naira. Data were sourced mainly from central bank of Nigeria statistical bulletin. Similarly, GDP was sourced from Central Bank of Nigeria statistical bulletin. Data on table 1 showed that mortgage banks started reporting their financial transactions from 1992, even though mortgage banking started in Nigeria in 1977. Data were available from 1997 – 2014, a period of 23 years out of 30 years (1985-2014) which is the study period.

The table further revealed that in 1992 the mortgage banks outstanding housing loans amounted to 0.208900billon Naira which translates to 0.49 percent of total outstanding loans and 0.024 percent of GDP respectively. From available data on table 1, it could be argued that commercial banks are the major participants in the housing finance market in Nigeria. Also the share of outstanding mortgage loans by commercial banks appears to be very small when compared to total outstanding loan as shown on column 4, table 1. Column 4 (CBOHL) revealed that out of 30 years under study, commercial banks did not lend to the housing sector for a period of fourteen (14) years (1994- 2007).

For the period 1985 – 1993 and 2008 – 2014, which amounted to sixteen (16) years out of the thirty (30) years study period, commercial banks participated in the housing finance market. During this period housing finance contribution to GDP average 1.68 percent; a figure too small when compared to other African nations with a robust mortgage finance markets, such as South Africa 36 percent, Namibia 22 percent and Morocco 18 percent.

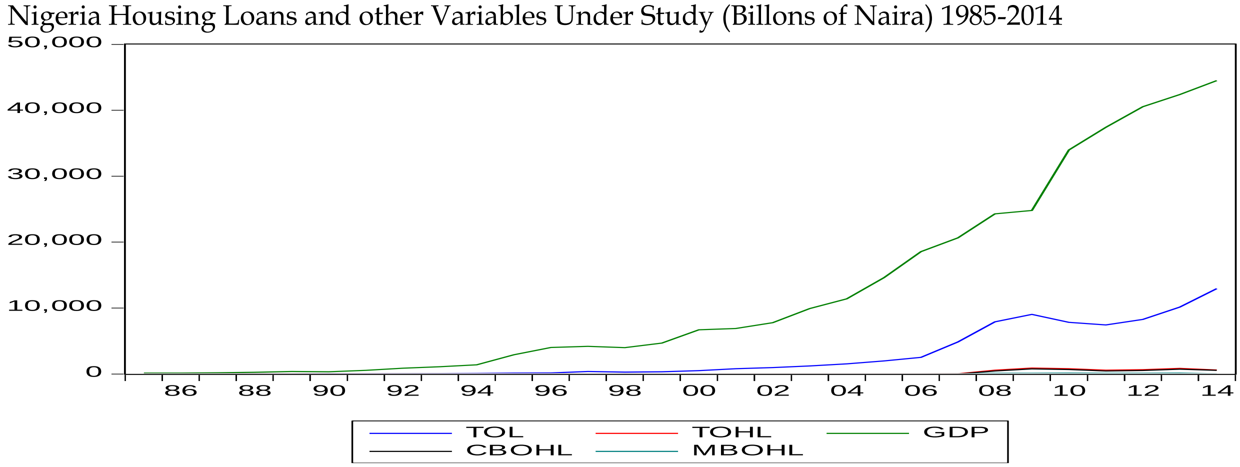
Table 2: Nigeria, Descriptive Statistics of Housing Loans and other Variables under Study in Nigeria

	LNRGDP	LNMBOHL	LNCBOHL	LNTHLPGP
Mean	5.361345	1.748246	3.465593	-1.453794
Median	5.288628	1.791759	1.544198	-0.679628
Maximum	5.828497	4.889417	6.656907	1.285555
Minimum	4.904583	-1.565900	0.913768	-4.363312
Std. Dev.	0.280466	2.336723	2.659163	2.045743
Skewness	0.296004	0.197940	0.248100	-0.234739
Kurtosis	1.831747	1.455706	1.086687	1.387385
Jarque-Bera	2.144111	2.435665	2.604653	3.526171
Probability	0.0342304	0.0295871	0.0271898	0.171515
Sum	160.8403	40.20966	55.44948	-43.61383
Sum Sq. Dev.	2.281181	120.1260	106.0672	121.3669
Observations	30	23	16	30

SOURCE: *Author's EviewsComputation(2017)*

The descriptive statistics in Table 2 above shows the aggregated averages of mean, median and mode for all the observations. The dispersion and variations in the series are shown by the standard deviation while the degree of pointedness and degree of departure from symmetry are shown by kurtosis and skewness respectively. A combined test of skewness and kurtosis known as Jacque-Bera Statistics which test for normality is also shown in the table above and the result shows that most of the variables are normally distributed with the exception of LNTHLPGP having the highest JB statistic and a p-value 0.17. This means that any variable with outlier are not likely to distort our conclusion and are therefore reliable for drawing generalization. Also none of the kurtosis value is greater than 3 showing evidence of platykurtosis. However, it can be observed that all the variables have kurtosis of less than 3, suggesting a departure from normality, though this is not a problem with financial time series.

Fig1:
Nigeria Housing Loans and other Variables Under Study (Billons of Naira) 1985-2014



The above graph (fig 1), shows the housing finance data movement in Nigeria. While the GDP moved slowly from 1985 to 1989, it started rising from 1990 and got to its peak in 2014. The slope of the total outstanding loans was below that of the GDP with a wide margin, indicating the extent of the financial sector contribution to economic growth. The slope of CBOHL only rose above the horizontal line in 2008, indicating that the impact of contributions to housing finance by commercial banks on economic growth of Nigeria is zero. The contributions of mortgage banks could be said to be almost non-existence.

Table 3: Stationarity Tests of the Key Variables

Variable	ADF Stat	Critical Value @5%	P value	Order of integration
LNMBOHL	-4.0215	-3.6584	0.0253	I(1)
LNCBOHL	-6.5501	-4.0081	0.0025	I(1)
LNRGDP	-6.2810	-3.5950	0.0001	I(1)
LNTHLPGDP	-4.2121	-3.5875	0.0133	I(1)

SOURCE: *Author's Eviews Computation(2017)*

From Table 3, we discover that the variables are integrated of the same order as they are all stationary at first difference. This is so because at first difference, the ADF stat for all the variables are more negative than the critical values at 5% and their corresponding probability value are all less than 5%. It is on this premise that the null hypothesis of the presence of unit root is rejected and the alternative accepted.

2.3 Test of Hypotheses one and two

Step One: Restating of the Hypotheses in Null Form

Ho_1: The contribution of housing finance by Mortgage banks does not have a significant effect on economic growth of Nigeria.

Ho_2: The contribution of housing finance by Commercial banks does not have a significant effect on economic growth of Nigeria

Test Statistics: Ordinary least square with other diagnostics tests

Table 4: Regression Results Test of the Model Formulated

Dependent Variable: LNRGDP
Method: Least Squares
Date: 07/25/16 Time: 21:11
Sample (adjusted): 1992 2014
Included observations: 30

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	5.323074	0.340735	15.62232	0.0000
LNMBOHL	0.115620	0.097772	1.182550	0.2902
LNCBOHL	0.000771	0.122504	0.006291	0.9952
LNTHLPGP	-0.163188	0.131174	-1.244057	0.2686

R-squared	0.888235	Mean dependent var	5.648245
Adjusted R-squared	0.821176	S.D. dependent var	0.225668
S.E. of regression	0.095430	Akaike info criterion	-1.559755
Sum squared resid	0.045534	Schwarz criterion	-1.472100
Log likelihood	11.01890	Hannan-Quinn criter.	-1.748915
F-statistic	13.24559	Durbin-Watson stat	2.306597
Prob(F-statistic)	0.008160		

Source: Author Eview'sComputation(2017)

From table 4, Economic Growth is proxy as Real Gross Domestic Product (RGDP) while Mortgage Banks contribution to Housing finance is proxy as Mortgage Banks Outstanding Housing Loan (MBOHL) and Commercial Banks contribution to Housing finance is proxy as Commercial Banks Outstanding Housing Loan (CBOHL), Ratio of Total Housing Loan to Total Loan (THLPTL) is used as control variable. From the regression result in the table LNMBOHL shares a positive and none statistically significant relationship with RGDP as the coefficient is positive (0.115620) and the p-value is greater than 5% (0.2902). LNCBOHL shares a positive but not statistically significant relationship with RGDP as the coefficient is positive (0.000771) and the p-value is greater than 5% (0.9952).]

Step Three: Diagnosis of the Regression Result of Model one and two

From the result shown above, the R^2 is 89% indicating that the independent variables account for 89% of the variation in RGDP while 11% of the variation is explained by factors outside the model. The F statistic also shows that the overall regression is statistically significant and can be used for meaningful analyses. This is shown by the p-value that is less than 5 %(0.008). The Durbin Watson Stat. which is 2.3 is approximately 2 showing that there is no evidence of autocorrelation. Essentially, the regression is good enough for the test of the set hypotheses.

Step Four: Decision for Hypotheses one and two

Given the fact that the p-values of the t-statistics in hypotheses one and two are all greater than 5%, we refuse to accept the null hypotheses and conclude that both Mortgage Banks and Commercial Banks contribution to Housing finance do not have significant impact on economic growth in Nigeria.

3. Discussion of Findings and Conclusion

3.1 Discussion of Findings

Objective one**:** To determine the effect of the contributions to housing finance by mortgage banks on the Economic growth of Nigeria.

From the regression result in table 4,LNMBOHL was found to have a positive and not statistically significant effect on RGDP as the coefficient is positive (0.115620) and the P-value is greater than 5% (0.2902).Mortgage banking as a strategy for housing delivery and economic growth has been in operation in most developed countries as early as 1930s. In Nigeria mortgage banking started with the establishment of the Nigerian Building Society in 1956 by the colonial government (Olaniran, 2003; Osibogun, 2016).

Even though mortgage banking started in Nigeria as far back in 1956, table 1 and fig. 1 reveals that activities of the market only came to the fore in 1992. The value of loans granted by the market in the year 1992 amounted to only N0.2089 billion. The low market performance continued until 2001, when for the first time the market granted loans of N1 billion. Given the capital intensive nature of housing, it is evident that N1 billion can only afford few numbers of housing units.

Trend analysis of outstanding mortgage loans by mortgage banks as depicted in fig. 1 reveals that the effect of the contributions to housing finance by mortgage banks on the economic growth of Nigeria is less than one percent on yearly average throughout the period under study. These findings correspond with the findings of similar studies carried out by Osibogun (2016), Akenju (2007) and Oyalowo (2012). Hence we concluded that objective one has been achieved.

Objective two: To ascertain the effect of the contributions to housing finance by commercial banks on the economic growth of Nigeria.

From table 4, Economic growth is proxy as Real Gross Domestic product (RGDP) while commercial banks contribution to housing finance is proxy as commercial banks outstanding housing loans (CBOHL), while ratio of total housing loan to total loans (THLPTL) is used as control variable. From the regression result LNCBOHL has a positive but not statistically significant effect on RGDP as the coefficient is positive (0.000771) and the P-value is greater than 5% (0.9952).

Based on the evidence on table 1 and fig 1, it could be argued that commercial banks are the main sources of fund to the housing finance market in Nigeria and this might be as a result of the federal government directives on commercial banks through the Central Bank of Nigeria to allocate a minimum of 5 percent of their total loan portfolio to the housing sector.

For the period under review the contribution of both mortgage banks and commercial banks to economic growth of Nigeria ranges between 0.0127 percent and 3.6167 percent. In 1985 it was 1.8529 percent and declined to 0.0127 in 2000, and thereafter increased to 3.6167 (the highest) in 2009. It further decreased in 2014 to 1.3569 percent. These findings are in line with the findings of 1sa, Jimoh and Achuenu (2013), Oyalowo (2012), Sanusi (2003) and CAHF (2015) who carried out similar studies. Given the inter-relationship of the findings, it is evident that objective two has been achieved.

Ghana

Aggregate Housing Finance Market and Economic Growth of Ghana

It has been observed that the housing finance market in Ghana is grossly underdeveloped. This is attributable to the unstable political climate of the early 1980s, which crippled the housing finance market in Ghana, as people were afraid to build. Similarly, these years were also characterized by government lack of adequate resources to fund the housing sector. One of the sources of pride to the average Ghanaian is the ability to own a house which is considered more important than education and health. Housing is seen as a reflection of one's social status (Boamah, 2010).

According to Ghana Real Estate Developers Association (GREDA) (1998), the poverty level in the country is so high that only 5% of the citizens that are interested in building a house can do so from their own income. While 60% would need mortgage finance and the remaining 35% will not be able to own a house in their life time. This assertion is collaborated by the findings of Boamah(2010) who studied housing affordability in Ghana with a focus on Kumasi and Tamale. He noted that high premium is put on home ownership in Ghana, however a greater proportion of the household in Kumasi and Tamale are incapable of acquiring a house with their own earned income or owning a house in their life time.

The size of the housing finance market is so small that its impact is barely felt. The ratio of outstanding mortgage loan to GDP was 2.5% in 2004, 3.9% in 2006 and 0.50% in 2015 (Bank of Ghana, 2007, CAHF, 2015 Rust 2012). Ghana has 26 commercial banks, out of which only 5 officially offer mortgage loans as a product. The banks are HFC, Fedelity, Calbank, Stanbic and UT bank. The country's only non – bank institution which concentrate exclusively on lending for residential mortgage is Ghana Home Loans (GHL). Our findings revealed that less than 3% of total loans granted by banks goes into housing finance. An indication that the market is under developed when compared on regional and continental basis.

It has been argued that the formal financial institutions made minimal contribution to housing delivery in Ghana. Between 90 – 92% of houses build are constructed through self-help and on incrementally basis. This is referred to as sweat equity in Ghanaian Parlance). Sometimes the construction of a house takes between 5 to 15 years and by the time it is completed it is already out of time with modern reality (Nelson and Asamoah, 2014; CAHF, 2016).

According to Bank of Ghana (2007), the dearth of quantitative housing data in Ghana is associated with the nature of funding housing construction model in Ghana. The model which is based on personal savings, borrowing from friends, relatives and cooperative societies, is slow and prolong the construction period of a house. Conversely, the economic values on incremental bases are not capture in the Gross National Income (GNI) accounting of the country. The inability to correctly record activities in the housing market is a barrier to the growth of the market. Rust (2012), posits that "because the mortgage market is so small, current housing investment in the market is also small. Current housing investment in Africa countries is not well quantified due to dearth of data". Furthermore, housing construction in Ghana is driven by household rather developers or government. Government effort aimed at housing delivery is directed toward the civil servants who are usually allocated land in areas which lack basic amenities such as good access road, electricity and pipe bore water. While the housing finance market only serve the needs of the few members of the society within the high income bracket.

For housing to play its role in the growth and development agenda, it must be accessible to the majority of the people. Boamah (2014) puts it thus, "access to affordable and sustainable housing fund is extremely essential for the provision of adequate shelter for the citizen of a country". Likewise Nelson and Asamoah (2014), noted that the mortgage market is used to meet the housing need of people in the developed economies. However the reverse is the case in the developing countries such as Ghana where the mortgage market is accessible to less than 30% of the working populace. These inhibitions suggest that the housing finance market in Ghana is not in position to impact positively and significantly to the economic growth in Ghana. However, given the 1.7 million housing units deficit, the Ghanaian housing market will require a minimum of 3.4billion Dollars for new housing construction in order to bridge the housing deficit gap. If the above amount is invested into the Ghanaian economy, it is capable of transforming the economy while at the same time placing it on the pact of sustainable economic growth and development.

Gambia

Aggregate Housing Finance Market and Economic Growth of Gambia

CAHF (2015), describes Gambia as one of the smallest countries in the African continent and one of the most densely populated. It has a population of about 1.9 million people. When compared to its West African neighbours, the country market size is very small. The financial market is under – developed with limited financial products. There are 12 commercial banks, out of which one is an Islamic bank. Bank interest lending rate is as high as 28.5% as at the end of 2014.There is a wide spread poverty rate in the country, estimated to be 48%. Due to the high rate of poverty, houses are mainly built with semi-permanent materials. It is estimated that about 52% of the houses are made of semi-permanent materials, while only 40% are built with permanent materials.

Given the shortfall in the housing delivery estimated to be about 50,000 units, there are opportunities in the housing and housing finance sector. An average price of three – bedroom bungalow cost US$100,000, equivalent to Gambia MD4 million.

Gambia has only one functioning financial institution that market mortgage products. The Home Finance Company of the Gambia Ltd provides finances for people to buy homes. Repayment period is a maximum of 15 years. Also there are private developers that built houses and offer them for sales. In most cases these houses are beyond the reach of the lower and medium income earners. It could be argued that the housing finance market in Gambia has two distinctive characteristics which distinguish it from other housing finance markets in the region and in Africa. Firstly the market carter for the very rich on one side and secondly for the very poor on the other side. The houses built by private developers can only be afforded by the very rich, while the market made a provision for the very poor by establishing a company known as Amiscus Horizon. The objective of the company is to produce blocks in large quantity so that the poor can buy instalmentally on monthly bases until it is sufficient for them to commence the construction of their own houses (Hafield, 2016).It could be argued that the aggregate housing finance market in the Gambia has a positive outlook, but not statistically significant to the economic growth of the country due to wide spread poverty and high interest rate. Consequently, majority of the population have been prevented from participating in the housing finance market by these barriers (poverty and high interest rate).

3.2 Conclusion

Generally, the housing finance market in West African is under-developed. The huge investment opportunities in the market have not been exploited due to the small size of the mortgage market. Nigeria has the largest housing finance market in the region but its impact on economic growth is not statistically significant. It implies that in spite of the large size of the market, it is still under-developed.

The housing finance market in Gambia is worst hit as a result of wide spread poverty. Other constrain to the growth of the market in the region include but not limited to poor salary / wages paid to the average worker, high interest lending rate, land tenure system, high cost of formalizing title to land and the cumbersome processes involved in obtaining title document to land. In some cases, it takes up to three years.

3.3 Recommendations

In order to allow housing finance to play its developmental roles as obtainable in developed economies we recommend the followings:

The various governments of West African State should introduce policies that would make both mortgage and commercial banks increase their housing sponsorship in West Africa.

The high cost of land should be addressed with a view to making it affordable to those who are ready to build houses and at low interest rate too.

The private sector should be encouraged to utilize the huge opportunities that abound in the housing and housing finance by investing in the sector.

4 Research Limitations and Direction for Further Research

4.1 Research Limitation

The major challenge faced during the course of this study is availability of data on mortgage financing in Ghana and Gambia. However, this problem was managed by not including these countries in our model specification.

4.2 Suggestion for Further Study

Based on the result of this study, we therefore suggest that further study should be carried out on this area, expanding the scope to other African countries not covered in this study.

References

Akeju, A.A. (2007). Challenges to Providing Affordable Housing in Nigeria. A Paper Presented at the 2nd Emerging ultra-Africa international conference on Housing Finance in Nigeria, held at SehuYar'adua Center Abuja, Nigeria.

Afrane, S.K., Owusu-Manu, D., Donkor-Hyiaman, K.A., &Bondinuba, F.K. (2014). Toward Innovative Housing Financing in Ghana: an Evidence Based from South Africa's Pension Housing Financing System. *Journal of policy and administrative research 4(4), pp. 97 – 110.*

Bank of Ghana (2007). The Housing Market in Ghana. *Research department bank of Ghana.*

Bensouda, A. & Co, LP (2013). Improving land Sector Governance in the Gambia. Implementation of the land Governance Assessment Framework (LGAF). Kanifing Institutional Area KanifingMunipality.

Boamah, N.A. (2010). Housing Affordability in Ghana: a Focus on Kumasi and Tamale. *Ethiopian journal of environmental studies and management, 3(3), pp. 1 – 11.*

Boamah, N.A. (2014). Housing Policy in Ghana: the Feasible Paths. *GJDS,*11 (1).

Centre for Affordable Housing Finance in Africa (CAHF, 2013). Housing Finance in Africa year book: a review of some of Africa's housing finance markets. Parkview, South Africa Centre for Affordable Housing Finance in Africa, a division of Fin-Mark Trust.

Centre for Affordable Housing Finance in Africa (CAHF, 2015). Housing Finance in Africa year book: a review of some of Africa's housing finance markets. Parkview, South Africa Centre for Affordable Housing Finance in Africa, a division of Fin-Mark Trust.

Centre for Affordable Housing Finance in Africa (CAHF, 2016). Understanding Ghana housing finance market.

Harris, S.C. (2014). Investment Climate Statement. *U.S Department of State: 1 – 19.*

Hatfield, J.P. (2016). Innovation Affordable Housing Practices in Africa: Cement Block Banking in the Gambia.CaseStudy Series 3. Centre for Affordable Housing Finance in Africa

Isa, K.B., Jimoh, R.A., and Achuenu (2013). An Overview of the Contribution of Construction Sector to Sustainable Development in Nigeria. *Net Journal of Business Management*, 1(1), pp. 1 – 6.

Nelson, I.D., Asamoah, R.O. (2014). Participation of Real Estate Development in Mortgage Financing: Push and Pull Factors in Ghana. *International journal of management sciences 3(3), pp. 126 – 139.*

Olaniran, O. (2003). Mortgage Banking: Principles, Policies and Strategies, Osogbo, Nigeria, Newdeal publications (nig) Ltd.

Osibogun, D. (2016). Rething Nigeria's Mortgage Financing Policies for Sustainable Development and Global Competitiveness of the Chartered Institute of Banking of Nigeria.

Oyalowo, B.A (2012). Housing Market Constrains in the West Africa Region. *Mediterranean Journal of Social Sciences*, 3(II), pp. 241-252

Rust, H. (2012). The Importance of Housing Finance in Financial Sector Development in Africa. *Centre for Affordable Housing Finance in Africa, a division of FinMark Trust.*

Sanusi, J.O (2003) Mortgage Finance in Nigeria: Issues and Challenges. Being text of a paper presented at the 9th John Wood EkpenyongMemorial Lecture, Organized by the Nigerian Institution of Estate Surveyors and Valuers, January 29.

Is the Federal Reserve System (FED) and its monetary policy responsible for expansion and contracting the business cycle?

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Keywords
Federal reserve system, business cycle, monetary policy, quantitative easing

Abstract

The term "business cycle" describes the pattern of fluctuations—expansions and contractions—in economic activity over time. Periods of expansion are measured from the bottom (trough) of the previous cycle to the top (peak) of the next cycle. Contractionary periods, on the other hand, are measured from peak to trough. The official U.S. business cycle dates are provided by the National Bureau of Economic Research.

The third millennium has started with two extensive financial crisis: the dot com bubble in 2000 and the housing crisis in 2007 – both started in the U.S. In both cases there is evidence that the FED first had low interest rate causing the bubbles later increased interest rate to pop the bubbles. Despite the conventional view, there is evidence that the Fed has not been as effective as once thought in accomplishing its stabilization goals, and even some evidence that the Fed era has had more economic instability.

September 15, 2018, it will be 10 years since Lehman Brothers filed for Chapter 11throwing the U.S. and much of the world into the greatest financial crisis since the Great Depression. The financial crisis has since reshaped economies and financial markets and its effects are still being felt ten years later. With zero percent interest rate and massive injection of quantitative easing the U.S economy is far below the pre-crisis era. Growth rates in the last ten years have been averaging about 2.1% - below the 3% before 2007 crisis. World trade, foreign direct investment and productivity have not gained since the financial crisis of 2007. They are all significantly below pre crisis era. What caused the crisis, however, is still a matter of some debate among economist however the expansionary monetary policy of the FED and lower interest rate in 2003 and 2004 was a serious factor that contributed to the crisis. One of the inescapable truths of the past 10 years is that the central bank policies introduced to mitigate the crisis may be sowing the seeds of another one. As in the run-up to 2007, ultra-low interest rates have been distorting the world's finances. In addition, quantitative easing (QE) and an abundance of cheap money flowing into the markets has also pushed up the world's debt burden. This paper examines how the FED in this process has exacerbated the business cycle.

Risk assessment and risk management decisions: a case study of Thai rice farmers

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Keywords
Agricultural risks,Thai rice farmers, Risk management decisions, Flood risk prevention or mitigation actions

Abstract
This study aims at analyzing the agricultural risks that rice farmers in different areas have faced and the risk management decisions. The latent regression of binary choice using the logit model is employed to empirically test factors influencing risk management decisions of Thai rice farmers. The interview data of 426 rice farmers in four major rice production provinces: Supanburi, Pisanulok, Khonkhan and Nakornratchasrima are used in this analysis. The empirical results have shown that factors that statistically significant influence the risk management decision that prevents the incidence of floods in the future or mitigates the severity of future flood incidences are rice planted areas, the location of farm whether or not in lowland area, the subjective expectation that flood will occur in the next ten years and the farmers'judgments regarding the ability to protect from flood risk.

1. Introduction

Rice is a major crop for agricultural production in Thailand. Total rice planted area is 70 Million Rais (11.2 Million Hectares), accounted for 47 percent of total agricultural land use. Rice is also an important crop as 3.7 farming households in Thailand, or 63 percent of total farming households rely their livelihood on rice. However, Thai rice farmers are highly exposed to flood, delayed rainfall and drought (Thailand Fiscal Policy Office, 2010). Pests are also one of the key risks for rice production (Chantarat, et al., 2013). As a result, Thai rice farming households are more vulnerable to weather shocks and pest infestations resulting fromthe negative impacts on production and income.

Natural disasters, particularly the severe flood in 2011, caused huge damages on assetsand income, with the estimated of total loss in agriculture of 909 Million USD (World Bank, 2012). The flood in 2011 generated severe impact on livelihood, productivity, income and consumption. The Thai government has always assisted the affected-disaster farmers. On average, the government spends 3,350 Million Baht annually for rice farmers affected by flood, drought and pests (Chantarat, et al., 2013). However, risk management actions to prevent future flood incidence or mitigages the damage and loss of future flood events can reduce negative consequences of flood to household welfare, reducing the government budget for disaster assistance. Examples of risk prevention or mitigation actions include having savings, diversifying on farm and off-farm activities, building on-farm flood protection, having community flood protection, buying crop insurance, buying more assets, reducing rice planted areas, adjusting farming practices such as choosing short-duration variety or even changing rice cropping calendar. However, the decision to take risk prevention actions depends on households' characteristics, risk attitudes and subjective expectation of the flood risks. Therefore, it is interesting to study factors affecting rice farming households to undertake flood risk prevention or mitigation actions after the incidence of severe flood in 2011

2. Theoretical Framework

A farmer has two choices to select which is either taking or not taking risk prevention or mitigation actions (RPA). RPA will take only two values, say, 1 if farmers take RPA and 0 if not. According to the rational choice theory, the risk prevention actions can be assessed by comparing the a neoclassical random utility model for individual choice (Green, 2003) thereby the random utility functions of those two choices are described as follows.

Utility of taking RPA $U_{RPA} = X'\beta_1 + \varepsilon_{RPA}$

Utility of not taking RPA $U_{NRPA} = X'\alpha_1 + \varepsilon_{NRPA}$

Thereby the measurable vector of characteristics of the farmer is shown by X'. This might include gender, age, income and other demographics, risk attitudes and subjective expectation of the flood risks and ε_i for i=RPA and NRPA is the error term.

The rational farmers will take an actions if his or her utility function is greater than the utility of not taking $(U_{RPA} > U_{NRPA})$ or the utility from benefits of prevent income or asset losses due to flooding are higher than the cost of doing RPA. On the other hands, those who will not take any actions, his or her utility function of taking any actions is less than the utility of not taking.$(U_{RPA} < U_{NRPA})$. However, the observed choice only reveal which one provides the higher utility but the magnitudes of the utilities are unobserved. Therefore the probability that a farmer will takes RPA or the probability that Y=1 and the probability that a farmer will not take RPA or the probability that Y=0 can be given as

Probability of taking RPA $\text{Prob}(Y = 1|X) = \text{Prob}(U_{RPA} > U_{NRPA})$

Probability of not taking RPA $\text{Prob}(Y = 0|X) = \text{Prob}(U_{RPA} \leq U_{NRPA})$

To estimate the probability of RPA, the binary choice model or a latent regression model will be applied since the theory states that the farmer make marginal benefit/marginal cost based on the utilities achieved by taking RPA and by not taking thus the difference between benefit and cost, which is net utility can be described as an latent unobserved variable Y* such that

$Y^* = X'\beta + \varepsilon$

Assuming that ε has zero mean and has either standard normal distribution or standardized logistic, therefore

$Y = 1$ if $Y^* > 0$ or $Y^* = X'\beta + \varepsilon > 0$ and $Y = 0$ if $Y^* \leq 0$ or $Y^* = X'\beta + \varepsilon \leq 0$

3. Methodology

The research methodology including of sample and the approach employed are discussed in the following.

3.1 Data Collection

This study focuses on factors affecting rice farming households to undertake flood RPA after the incidence of severe flood in 2011. As a results, two rice-growing regions of Thailand: central and northeastern region are chosen as the study area. Four rice-growing provinces that experienced the severe flood in 2011: Pitsanulok and Suphanburi in the central region, and Khonkaen and Nakorn-Ratchasima in the northeastern region are chosen as samples. In addition, the survey data covers farmers from different agricultural risk zones (flood-prone areas and non-flood prone areas). A flood prone area is defined as an area that has had a frequency of flood occurring every year or occurring 3 to 4 years within the past 5 years. The chosen provinces in the central region represent flood prone area and the chosen provinces in the northeastern region represent non-flood prone area. The field-survey included a total of 426 respondent rice farmers in two regions (226 samples in Central area and 200 samples in the Northeastern area), described in Table 1. It is noted that the field-survey data used in this study was taken in 2013 from a collaboration between Samphantharak and Chantarat (2014) for the ERIA project "The Effects of Natural Disasters on Household's Preferences and Behaviors: Evidence from Thai Farmers During and After the 2011 Mega Flood"and the Agricultural

Research Strategy Unit, Faculty of Economics, Kasetsart University for the study under the title of "Demand Assessment for Area Yield Index Insurance"of Thai rice-farming households.

Region/Provinces	Number of samples
Central region (flood-prone area)	
Suphanburi	104
Phitsanulok	122
Northeastern region (non flood-prone area)	
Khon Kaen	104
Nakhon-Ratchasima	96
Total	**426**
Source: from survey in 2013	

Table 1: Sample classified by areas and provinces

The questionnaires were developed for collecting (1) socio-economic characteristics of rice farming, (2) agricultural information:rice planted area, production and income, (3)risk perceptions: source of risks, frequency and impact of risks, experice of shocks and a chance that the occurrence of severe flood events future, (4) risk management actions to prevent future flood incidence or mitigages the damage and loss of future flood events and (5) farmer's Judgment on ability to protect from flood risk.

3.2 Research approach

Both qualitative and quantitative approaches are employed in this research. Firstly, the descriptive analysis are utilized to identified or to addressed agricultural risks assessment of rice farmers in the studied area and then analyze the risk prevention or mitigation actions of rice farmers. In order to analyze the relationship among the factors effecting risk prevention activities of rice farmers, t the logistic distribution function was constructed as the following.

$$P_i = E(Y = 1|X_i) = \frac{1}{1 + e^{-(\beta_1+\beta_1 X_i+\varepsilon_i)}} = \frac{1}{1 + e^{-Z_i}} = \frac{e^{Z_i}}{1 + e^{Z_i}}$$

And

$$\log\left(\frac{P_i}{1 - P_i}\right) = \beta_1 + \beta_1 X_i + \varepsilon_i$$

Where $Z_i = \beta_1 + \beta_1 X_i + \varepsilon_i$., $-\infty \leq Z_i \leq \infty$ and P_i is the probability that the farmers take a risk prevention action and it ranges between 0 and 1($0 \leq P_i \leq 1$). The general model of logit model in this study can be written as

$$Prob(Y = 1|X_i) = P_i$$
$$= f\,(Gender(MALE)\,, HH\ members(HHSRICE), Rice\ income\ share(SHRICEINCOME), Rice\ production\ area(RICEAREA), Areas\ characteristics(DLOWLAND), Flooding\ frequency\ (F\_FLOOD), \text{Expected numbers of severe flood in the future}\ (N\_FLOOD), \text{Cost of taking RPA}(EXPENSE), Ability\ to\ cope\ with\ flooding(ABILITY))$$

where Y=1 if farmers taking at least one flood-RPA such as having saving account, diversifying on farm and off-farm activities, building on-farm flood protection, having community flood protection, buying crop insurance, buying more assets, reducing rice planted areas, or adjusting farming practices such as choosing short-duration variety or even changing rice cropping calendar and Y=0 if not. The independent variables included in the model can be described as following table.

Independent variables	Unit classification	Expected effect
Gender (*MALE*)	1=male, 0= female	+/-
HH members (HHSRICE)	Household members (persons)	+
Rice income share (SHRICEINCOME)	Income from rice production (%)	+
Rice production area (RICEAREA)	Size of rice area (Rais)	+
Areas characteristics (DLOWLAND)	Lowland=1, highland=0	+
Flooding frequency (*F_FLOOD*)	Frequency of flooding in past 5 years, 1= at least once 0=otherwise	+
Expected severe flood in future(N_FLOOD)	Expected number of servere flood in the next ten years	+
Cost of taking RPA (EXPENSE)	Cost of adopting prevention activities (thousand bahts)	-
Ability to cope with flooding (ABILITY)	Be able to cope with flooding=1 Unable to cope with flooding=0	-

Table 2: Unit and expected sign of independent variables

4. Research results and discussions

4.1. Agricultural risk assessment

Farmers were also asked to rank the impact of those risks on rice income (0=no impact, 1= low impact and 2 = high impact).The results in Table 3 indicated that river flooding is the natural hazard that most rice farmers in the central region (flood-prone area) identified as the risk caused high impact on rice income, followed by high temperature and rainfall flooding, respectively. On the other hand, most rice farmers in the Northeast region (non flood-prone area) identified that drought was the majority natural risk problem with high impact on rice income followed by river flooding and rainfall delay, respectively. For the price risks, the farmers in both areas also indicated that price risk in the form of low rice price and high input costs had a major impact on their rice incomes. For other production risks, pests and weedy rice were also considered as the factors having high impact on rice income of farmers in the central area (Table 3).

Unit: %

Agricultural Risks	Central (Flood-prone area))			Northeast (Non flood-prone area)		
	0	1	2	0	1	2
Production Risk						
Natural risks						
Drought	37.61	25.66	36.73	12.50	26.00	**61.50**
Rainfall delay	54.42	23.01	22.57	15.00	37.00	48.00
River flooding	15.93	19.91	**64.16**	40.00	11.50	**48.50**
Rainfall flooding	28.76	34.07	37.17	60.50	12.00	27.50
High temperature	15.93	44.69	39.38	37.00	35.50	27.50
Disease	9.29	55.75	34.96	16.50	46.50	37.00
Pest (rat, golden apple snail)	3.98	38.94	**57.08**	16.50	40.00	**43.50**
Weedy rice	7.52	30.09	**62.39**	57.00	32.50	10.50
Price Risk						
Low rice price	15.93	12.83	**71.24**	22.00	27.50	**50.50**
High input cost	8.85	15.49	**75.66**	17.00	23.50	**59.50**
Source: survey 2013						

Table 3:Rating Impact of Agricultural Risks (0= No Impact, 1= Low Impact, 2= High Impact) classified by regions

The results in Table 4 showed that most of rice farmers in northeastern area revealed that in the past 5 years the production risk such as high temperature and flooding were happened one or two times while pests infestination occured every year. On the other hands, high cost of production was the most frequency of the price risk. While most of central rice farmers revealed that in the past 5 years the production risk such as drought, hign temperature and flood due to rainfall were happened one or two times while the river flooding happened every year. Furthermore, pest and weedy rice happened every year and cost of production also was the most frequency of the price risk. Overall, most rice farmers in thecentral region (flood-prone area) gave higher weight to flood incidences as risks likely to occur more frequently than those in the northeastern region (non flood-prone area).

Unit: %

Agricultural risk	**Frequency of risk in the previous 5 years**			
	0	**1**	**2**	**3**
Northeast				
Natural risks				
Drought	14.00	37.50	26.00	22.50
Rainfall delay	13.50	**40.00**	24.50	22.00
River flooding	13.50	**40.00**	24.50	22.00
Rainfall flooding	53.50	18.00	12.50	16.00
High temperature	24.00	**44.50**	17.00	14.50
Disease	11.50	33.00	18.50	37.00
Pest (rat, golden apple snail)	11.00	26.00	15.50	**47.50**
Weedy rice	53.00	18.00	9.50	19.50
Low rice price	26.00	37.50	21.00	15.50
High input cost	14.50	20.00	13.50	**52.00**

Agricultural risk	**Frequency of risk in the previous 5 years**			
	0	**1**	**2**	**3**
Central				
Natural risks				
Drought	38.94	**49.56**	9.29	2.21
Rainfall delay	50.88	34.96	11.06	3.10
River flooding	11.50	29.65	20.35	**38.50**
Rainfall flooding	28.76	**37.17**	11.50	22.57
High temperature	16.81	**49.56**	15.04	18.58
Disease	7.96	32.30	19.91	39.82
Pest (rat, golden apple snail)	3.98	26.11	18.58	**51.33**
Weedy rice	6.19	7.08	10.18	**76.55**
Low rice price	19.03	37.61	20.35	23.01
High input cost	9.73	10.18	14.60	**65.49**

Source: survey 2013

Table 4:Rating Frequency of Agricultural Risks [0= Not occur, 1= Occur in some year (1-2 in 5 years) 2= Occur almost every year (3-4 in 5 years) and 3= Occur every year (5 in 5 years)]classified by regions

The results in Table 5 indicated that most of the rice farmers in both areas, about 60.99% of the total respondents in the central region and 53.75% of the respondents in the Northeast took risk prevention or mitigation actions (RPA). The most common activities that the rice farmers in both areas have done was building flooding protection system such as building road ridge or earthen dyke following by changing croping calendar such as grow faster than the previous schedule or using shortern-growing rice variety.

	Central		Northeast		Total	
	Number	%	Number	%	Number	%
Don't take any action	68	39.31	37	46.25	105	41.50
Take any action	105	**60.69**	43	**53.75**	148	58.50
Diversifying off-farm activities	20	11.56	12	15.00	32	12.65
Buying crop insurance	14	8.09	7	8.75	21	8.30
Having saving account	15	8.67	14	17.50	29	11.46
Buying more assets	3	1.73	2	2.50	5	1.98
Having crop diversification	11	6.36	5	6.25	16	6.32
Reducing rice areas	3	1.73	2	2.50	5	1.98
Changing rice cropping calendar	39	**22.54**	14	**17.50**	53	20.95
Changing rice growing techniques	14	8.09	5	6.25	19	7.51
Building flooding protection system	76	**43.93**	34	**42.50**	110	43.47
Total	**173**	**100.00**	**80**	**100.00**	**253**	**100.00**

Table 5:Numbers and percentage of rice farmersclassified bytakingrisk management actions and regions

Note: A farmer reported more than 1 risk prevention or mitigation action

The empirical results of the study shown in Table 6 indicated the corresponding explanatory variables included in the logit models have the expected signs. It also showed that rice farming hosueholds with higher share of rice income are more likely to take RPA. This factor is statistically significant at 95% confidence intervel in both regions. The margial effect is 0.0037 for the central region and 0.0034 for the northeastern region. That is, the probability of farmers in the central area to take RPA increases by 0.37% as the share of rice income increases while that in the northeastern area increases by 0.34 percentage points.

In addition, the expansion of rice planted areas and the increase of expected number of flooding in the future are statistically significant for central region. Rice farmers in the central area are more likely to take RPA if the rice planted areas increase.The incease in the expected number of flooding in the future (next ten years) will increase the probability of taking RPA by 0.8 percentage points. In addition, farmers with larger rice farm size are more likely to take RPA compared with those with smaller rice farm size. This factor also has a positive impact but not statistically significant at 5% level of significance on the probability to take actions in flooding prevention practices for those rice farmers in the Northeast.

The result also expressed that the location and the ability to cope with flood is statistically significant at 10% level of significance in the case of central area (flood-prone area). The marginal effect of this determinant indicated that the likelihood to take RPA by farmers in the central area whose rice planted area located in lowland area is 13.79 percentage point higher than those whose rice planted area located in upland. In addition, the probability of taking RPA for respondents who judged that theycan protect themselves from flood risk is 8.49 percentage point higher than those judged that they cannot protect at all. However, in the case of the farmers in the northeastern areas, it is not statistically significant.

Comparing marginal effects among explanatory variables in the central region and those in the northeastern region reported in table 6, all marginal effect of all determinants on probability of taking RPA of the farmers in the central region is higher than those from rice farmers in northeast region.For the central region, the ability to cope with flooding has the highest influence on the likelihood to take RPA, followed by the area characterstics, whether the rice planted area is lowland and the expected number of flooding in the next ten years.

Explanatory variables	The central region			The northeastern region		
	Coefficient	p-value	Marginal Effect	Coefficient	p-value	Marginal effect
Constant	-3.0006	0.000		-0.9677	0.122	
Gender	-0.5573	0.163	-0.1135	-0.1801	0.594	-0.0437
HH members	0.0588	0.617	0.0116	0.0380	0.661	0.0093
Rice income share	**0.0187****	0.000	**0.0037**	**0.0140****	0.002	**0.0034**
Rice production area	**0.0257****	0.017	**0.0051**	0.0086	0.302	0.0021
Area characteristics	**0.7072***	0.057	**0.1379**	0.0599	0.855	0.0146
Flooding frequency	0.5459	0.182	0.1084	0.2416	0.464	0.0594
Expected number of flooding in the future	**0.2516****	0.008	**0.0497**	0.0760	0.285	0.0186
Cost of taking RPA	-0.0026	0.591	-0.0005	-0.0022	0.441	-0.0005
Ability to cope with flooding	**-0.8049****	0.049	**-0.1661**	-0.1567	0.625	-0.0384
LR Chi Square		60.41			31.76	
Pseudo R^2		0.2455			0.1078	

Remarks: ** significant at 95% confidence interval (5% level of significance)
* significant at 90% confidence interval (10% level of significance)

Source: from own calculation by using statistical software package EViews

Table 6:Estimated coefficients and marginal effects of the logit modelsby using maximum likehood estimation

6. Conclusion and Recommendation

The study indicated that farmers in different regions will face the production risk differently such as the farmers in the central areas faced with river flooding, pest and high temperature, respectively. While rice farmers in the northeastern areas faced with the drought, pest and disease outbreaks. Most of the rice farmers in these two regions has done flooding protection management such as building road ridge or earthen dyke and changing croping schedule by growing faster than the previous schedule or using shortern-growing rice variety.

Based on the results of the logit models, the most important and significant determinants of taking flooding protection activities are the ability to deal with flooding, location of rice farm, the expected number of flooding in the future, rice land size, and rice income share, respectively. The result of the impact of ability to deal with flooding on the probability of taking RPA was the same as the study result of Takasaki et al. (2002),Samal and Pandey (2005), and Hung et al. (2007) and the expected number of flooding in the future provided the same answer of the study of Sebstad and Cohen (2000). The positive impact of rice income share on the probability to take RPA can be convinced by the study of Dercon (2000)and Tongruksawattanaet al. (2010)which implied that the more income from rice production, the less likely to take high risk and the more likely to take RPA.
These findings confirm our research expectation and also confirm that the rice farmers in central area or in flood-prone area are more likely to take RPA than those farmers in the northeast or in non flood-prone area due to the fact that flood occurred almost every year in the flood-prone area, they have to use shorten-growing rice variety or changing their cropping calendar to harvest before the flood occurred, usually in September of the year

Recommendations

Strengthening the risk awareness and promoting RPA to rice farmers in northeastern region or non flood prone areas are necessary. In addition, the results of the study found that the small-scale farmers are less likely to take RPA. Therefore, the government should support small-scale farmers, particularly in the northeastern region with relatively low rice income share, by providing the support of credits and knowledge, including providing basic risk management manual or try to solidate the small-scale farmers to be big plantation and support them with the community risk management project.

7. Limitation of the Study and Direction for Future Research

Due to the limitation of the study that focuses on the risk management decision in response to flood, future research should explore factors affecting risk management decision in response to other perils such as drought.

Bibliography

Chantarat Sommarat, Pannangpetch Krirk, Puttanapong Nattapong, Pakwatinband anompongphandh Thanasin. 2013. Index-Based Risk Financing and Development of Natural Disaster Insurance Programs in Developing Asian Countries. (online) http://www.eria.org/publications/discussion_papers/index-based-risk-financing-and development-of-natural-disaster-insurance-in-developing-asian-countri.html

Dercon Stefan. 2000. Income risk, coping strategies and safety nets. The Annual Bank Conference in Developing Economics in Europe.

Greene, W.H. 2003. Econometric Analysis. 5th Edition. Prentice Hall. Upper Saddle River.

Hung V. Dao, Canh X. Ttan and Hung M. Tran. 2007. Assessing opportunities for agricultural insurance and risk coping strategies. Developing Agricultural Insurance for Vietnam: Interim report.

Rashid A. Dewan, Langworthy Mark and Aradhyula Satheesh. 2006. Livelihood shocks and coping strategies: An empirical study of Bangladesh household. American Agricultural Economics Association Annual Meeting.

Roumasset, J., J. Boussard, and I. Singh. 1979. Risk, Uncertainty and Agricultural Development. 3rd edition. New York: Southeast Asian Regional Center for Graduate Study and Research in Agricultural and the Agricultural Development Council.

Samal Parshuram and Pandey Sushil. 2005. Climatic risk, rice production losses and risk coping strategies: A case study of a rainfed village in Coastal Orissa. Agricultural Economics Research Review 18: 61-77.

Takasaki Yoshito, Bradford L. Barham and Olliver T. Coomes. 2002. Risk coping strategies in tropical forests: flood, health, asset poverty and natural resource extraction. The 2nd World Congress of Environmental and Resource Economists 2002.

Tongruksawattana Songporne, Waibel Hermann and Schmidt Eric. 2010. Shock and coping actions of rural household: Empirical evidence from northeast Thailand. The CPRC International Conference 2010.

World Bank. 2012. Thai flood 2011 : rapid assessment for resilient recovery and reconstruction planning : Overview (English). Washington, DC: World Bank. http://documents.worldbank.org/curated/en/677841468335414861/Overview

Informal economy as a cause for understating actual rates of entrepreneurship among blacks in the U.S. and in Africa

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Key words
Informal economy, Africa, black entrepreneurship, Nigeria

Abstract

The study presents considerations for African countries that build off of Crump, Hill, and Taylor (2017). In that study, Crump et al. (2017) argue and present empirical evidence to support the notion that rates of black entrepreneurship (measured by black business ownership) in the U.S. currently presented in entrepreneurship literature are misleading and understated. Once formal and informal economy are considered together, the authors propose that entrepreneurship rates of blacks drastically increase, and likely surpass many other groups. This exploratory study similarly argues and presents evidence that actual rates of business ownership and entrepreneurship derived from formal economy activities in Africa likewise understate the actual rates of entrepreneurship and business ownership there.

This study also shows that there are many more advantages to operating in the formal economy than there are to operating in the informal economy. A tool is provided that can aid entrepreneurship educators to highlight some hidden advantages and disadvantages to people choosing to operate in either economy.

1. Introduction

1.1 Understated Black Entrepreneurship Rates

Crump, Hill, & Taylor (2017) argue that in the United States the rate of black entrepreneurship, measured by black business ownership, currently presented in the entrepreneurship literature is misleading and understated. The extant findings in the entrepreneurship literature indicate that blacks in the U.S. have the lowest rates of established business ownership at just four percent (Fairlie & Meyer, 1996, 2000; Fairlie & Robb, 2007) while also having the highest rates of entrepreneurial propensity, interest, and nascent entrepreneurship (Köllinger & Minniti, 2006; Walstad & Kourilsky, 1998). This rate is one third that of white established business ownership which is 12 percent, and this one-to-three percentage ratio has remained constant for more than the past 100 years (Bates, 1996; Fairlie, 1999; Fairlie & Meyer, 1996, 2000).

The literature also shows that blacks in the U.S. are unique relative to most other major racial and ethnic groups studied in the literature (Bradford, 2003; Butler, 1991; Hout & Rosen, 2000; Singh, Crump, & Zu, 2009). They are likely to engage in entrepreneurial activities differently than others (Crump 2013; Crump et al., 2017). Most of the findings on them relate to entrepreneurs who operate registered businesses in the formal economy. This led Crump et al. (2017) to question if the exceptionally low rates of black business ownership in the U.S. relative to non-black population groups there result primarily from a measurement issue.

From the literature, the researchers hypothesized that certain forces act greater on blacks relative to non-blacks leading blacks to operate businesses in the informal economy at a significantly higher rate (see Crump 2013 for a more detailed explanation). Given the challenges of measuring informal economy activity (Macias & Cazzavillan, 2010; Schneider, 2005a, 2005b) among racial and ethnic groups, Crump et al. (2017) analyzed indirect measures and found that as the percentage of black population density increases in areas in the United States, those areas are more likely to contain a higher proportion of entrepreneurs operating in the informal economy. The researchers further established an *Informal Economy Index* (IEI) that can be used to measure the level of a city's informal economy activity based on its percentage of black population.

Crump et al.'s (2017) *IEI* supports their proposition that the well-established findings surrounding the underrepresentation of blacks in entrepreneurship compared to other groups diminish when the informal economy is factored into consideration. Once formal and informal economy are considered together, the authors propose that the sum of entrepreneurship rates of blacks drastically increase and likely surpass many other groups who operate in both economies. Similarly, actual rates of business ownership and entrepreneurship derived from formal economy activities in Africa likewise may understate the actual rates of entrepreneurship and business ownership there.

The implications of understated entrepreneurship rates among a population group may carry severe negative consequences. Such consequences may be experienced by the group, or by other affected outside groups and the broader community, society, and economy. Examples include prospective suppliers, partners, and investors who forego opportunities because the opportunities remain hidden. Additional groups include policy-makers, government officials, and grant funding institutions that divert resources elsewhere because of distorted perspectives on the actual entrepreneurial opportunities that exist among these hidden entrepreneurs. If systemic forces act more strongly on any particular ethnic, racial, or national group to understate that group's entrepreneurship rates, then research efforts to reveal these hidden forces should prove a worthwhile undertaking.

1.2 Aims of this Research

One aim of this exploratory study is to investigate whether any adverse impacts stemming from an underestimation of black entrepreneurs in the U.S. likewise relate to entrepreneurs and business owners in Africa whose entrepreneurship rates may also be largely understated. A second aim of this study is to explore any importance to policymakers and educators in both Africa and in the U.S. teaching entrepreneurs and business owners about differences and trade-offs of operating in either the formal or informal economy. Finally, we hope that this study contributes to the growing body of work that aims to increase the rate of entrepreneurship among blacks both in the U.S. and in African nations.

2. Literature Review

2.1 What is the Informal Economy?

The informal economy is difficult to clearly define (Chen, 2012; Macias & Cazzavillan, 2010; Schneider, 2005a). Yet, it is active in all countries around the world (Schneider, 2002 & 2005b), and is increasing (Schneider, 2005b). Chen (2012) shows how four different schools of thought (*Dualist, Structuralists, Legalists*, and *Volunteerists* schools) distinctively view and define this economic sector differently than each other. The International Conference of Labour Statisticians (ICLS) defines the informal sector as employment and production that takes place in unincorporated small and/or unregistered enterprises, and includes all types of informal employment both inside and outside informal enterprises (Chen, 2012).

This informal economic sector is comprised of several sub-dimensions that are easier to define. Some researchers partition the informal economy based on illegal versus legal activities, overlaid against illegitimate versus legitimate activities (e.g., Crump et al., 2017; Schneider, 2005a; Williams & Shahid, 2016). For our current discussion, we focus on the dimension that consists of business trade activities that would otherwise be lawful if the activities were taxed, licensed, regulated, and recorded.

2.2 What Causes People to Choose the Informal Economy Option?

Many forces lead people to operate in the informal economy, such as high unemployment, regulation, corruption, taxation, administration, and low salary levels and quality of public goods such as infrastructure (DeSoto, 1989; Dreher & Schneider, 2010; Khavul, Bruton, & Wood, 2009; Maloney, 2004; Schneider, 2005a; Schuck & Litan, 1987). People with high income levels choose the informal economy option out of having the discretion to run a business or not to run a business as a secondary source of income (Williams, 2008; Williams & Round, 2010). High income people also choose this option to increase wealth, business acumen, and access to resources (Webb et al., 2009), to escape corruption and bribes (Williams & Round, 2008), and to exploit opportunities from pre-existing formal employment (Williams, 2008; Williams, 2010; Williams & Nadin, 2010). People with middle income levels choose to operate in the informal economy also out of choice (Williams & Round, 2010, 2007), for hobby/personal interest reasons (Williams & Round, 2007), and to reduce risks with formal employment (Williams & Round, 2007).

People with low income have additional reasons to choose the informal economy. These include (1) for survivalists purposes, out of necessity, and as a main source of income (Edgcomb & Thetford, 2004; Williams, 2008; Williams, 2010; Williams & Nadin, 2010; Williams & Round, 2010); (2) because they are undercapitalized, and because they perceive themselves as targets of discriminatory practices in the formal labor market (Webb et al., 2009); (3) to reduce risks associated with formal employment (Williams & Round, 2007) such as demotion or dismissal; (4) to gain dignity and autonomy that they believe cannot easily be attained in formal employment (Maloney, 2004); (5) to favorably transform their work identity (Cross, 2000); and (6) because of hobbies, or personal interest (Edgcomb & Thetford, 2004; Williams & Nadin, 2010).

Some entrepreneurs make the choice to operate in either the formal or informal economy, only (Schneider, 2005a). Others choose to operate in both simultaneously by formalizing their business activities while also keeping some portion of their trade activities hidden. The criteria that guide this choice relates to perceived positive and negative tradeoffs that accompany both choices (Guillermo, 2008). Some of these trade-offs are advantages, and others are disadvantages. A third group of people *unwittingly* find themselves simply trading in a non-formal way in the informal economy, without really giving any thought to the existence of any official rules and regulations governing their business trade. This highlights that many who operate in the informal economy never make an explicitly conscious choice to do so.

2.3 Trade-offs: Formal Versus Informal Economy

In a nation's formal economy, primarily all businesses are registered and their income taxed. Most new and existing businesses are required to secure some sort of industry-specific license to ensure safety and harm remain in balance. Businesses must also obtain some type of general license(s) that grants permission to sell to the public and hire employees. These businesses, then, are registered, taxed, licensed, and regulated.

Incentives for accepting these regulations are many. By becoming registered on public registries, the businesses enjoy more visibility to a broader market of potential customers, suppliers, investors, and other types of strategic partners. In contrast, if a business does not register, it typically remains visible only to smaller localized markets of customers at *arm's length* of the business owner.

By becoming a legally identifiable business, the owner can convert the business into a separate legal entity such as a corporation or limited liable company. Prior to such a change, that business can be thought of as only being a *verb*. That is, the business is not a thing or *noun*. Instead, the business is simply an action (*i.e.,* a verb) that an owner *does*. When a business remains a verb, it and the owner are one in the same. Thus, no portion of the business can be traded as equity ownership in exchange for needed capital because a business owner cannot sell a portion of his *actions*. Additionally, the owner is personally and fully liable for all of the business' actions and liabilities.

When an entrepreneur instead registers his/her new or existing business as a legal entity, the business becomes a *noun*, and any portion of that business (the legal entity that is separate from the owner) can be sold or traded in exchange for equity. Formalizing one's business also enhances its legitimacy and brand to most stakeholders including customers, lenders, investors, and key recruits. Additionally, formalizing a business secures the right to use court services to settle disputes, and police and emergency fire services without reparation. Chen (2012) summarizes these benefits as providing: access to finance and market information; access to public infrastructure and services; enforceable commercial contracts; limited liability; clear bankruptcy and default rules; access to government subsidies and incentives including procurement bids and export promotion packages; membership in formal business associations; and access to a formal system of social security.

We ask: *Do trade-offs differ among entrepreneurs who operate in the informal economy in the U.S. relative to those who operate in the informal economy in Africa?* Africa is an enormous, multifaceted, and highly diverse geographic area that consists of many countries. These countries vary drastically from each other in many ways including climate, religion, culture, political system, language, ethnicity, infrastructure development, and legal/regulatory environment. Research efforts to identify specific barriers and opportunities that relate unilaterally to the region are scant. Thus, literature available on African countries typically focuses on some smaller subset of countries. Nonetheless, some generalizations have been identified in the literature.

2.4 Entrepreneurship Education in Africa

Africa is a very young population with nearly 60 percent of its people estimated at younger than 25 years. Only one in four children receive a secondary education, and less than five percent of these receive any type of vocational training (Kshetri, 2011). Entrepreneurship education could provide a helpful addition. DeJaeghere and Baxter (2014) point out, however, that much of the entrepreneurship education currently in Africa consists of necessity-driven training aimed at creating micro-enterprises and livelihood options aimed at getting out of poverty. In contrast, opportunity entrepreneurship education there would more so be aimed toward broader business and economic development. But such improvements rely on national and local governments cultivating the necessary conditions for youth to succeed in entrepreneurship. Otherwise, necessity entrepreneurs will fail as they transition into competitive and struggling marketplaces (DeJaeghere & Baxter, 2014; Libombo & Dinis, 2015).

2.5 Perceptions of Entrepreneurship in Africa

In general, people in West Africa value being an entrepreneur (Amine & Staub, 2009; Kiggundu, 2002; Rheault & Tortora, 2008). Yet, negative perceptions also exist. Many in Africa including some governments believe that being self-employed in a small enterprise equates to being *unemployed* (Amine & Staub, 2009). Given that West African countries are primarily collectivist societies (Hofstede, 1983) others believe that entrepreneurial status creates a duty that an entrepreneur share his/her income with extended family members and others when needs arise. This belief and practice is seen as negatively disadvantaging one's business performance, and for many, it serves as a deterrent to business ownership (Kiggundu, 2002).

Some West African entrepreneurs even relocate their businesses away from their hometown because of fear of the business becoming encumbered with family members (Robinson et al., 2009).

Further, especially in rural areas, there is a strong incidence of belief in witchcraft where sorcerers provide blessings, curses, and protection. Amine and Staub (2009) explain the widespread belief that entrepreneurs who are perceived as shirking their expectations to support extended family members through hard times may risk becoming the object of a curse. This fear likewise discourages some potential entrepreneurs from actually venturing into entrepreneurship.

Loyalty to such strong ties is also causally linked to fewer innovations coming from African businesses than from those in other more developed countries (Robinson et al., 2009). In the case of Ghana, there is a tendency for entrepreneurs to employ family members rather than more qualified applicants which likely result in a workforce that is less creative and lacking independent thinking (Robinson et al., 2009). Additionally, Robinson et al. (2009) show that people in Ghana view and treat older people as wiser and more knowledgeable. These tendencies serve to counter creativity and innovation by younger minds in favor of the more conventional wisdom of older people.

2.6 Women and Entrepreneurship in Africa

While there is a general sense among Africans that entrepreneurship has value and is regarded favorably, there is also a strong negative attitude toward women entrepreneurs at the community level (Amine & Staub, 2009; Rheault & Tortora, 2008). Amine and Staub (2009) provide a detailed explanation on many systemic barriers that women in Africa face in trying to become entrepreneurs. So while many exceptions exist where African women are making huge strides and becoming successful global entrepreneurs, the bulk of women-owned businesses in Africa are informal economy firms, formed out of necessity, and small-scaled enterprises (Amine & Staub, 2009; DeJaeghere & Baxter, 2014).

2.7 Political Environment in Africa

Throughout much of Africa, government and the private sector share the factors of production. Therefore, in these mixed economies the governments are the largest employers since they have nationalized many of the nation's firms. Governments also control large portions of countries' national resources (Kshetri, 2011; Mvunganyi, 2010).

African entrepreneurs in Africa compete with many ethnic migrants from outside regions who have moved to Africa in search of entrepreneurial opportunities. These non-African immigrants typically possess more formal education and better business networks, and are therefore able to establish competitive advantages over indigenous black entrepreneurs there. As a result, these non-African immigrant entrepreneurs stake out strongholds in certain markets, and create restricted access to those markets by prospective local African entrepreneurs (Amine & Staub, 2009).

Kshetri (2011) explains that these types of activities in Africa from foreign firms come at the expense of local entrepreneurs. Citing an example from *illegal-fishing.info* (2007) where thousands of fishermen on Africa's coast have lost jobs, Kshetri (2011) argues that the political process in a given country has a built-in bias that favors organized groups and industries compared to those that are unorganized (Mitra, 1999, as cited in Kshetri, 2011). Because most African countries do not have large and organized local commercial fishing industries to pressure their governments, outside organized groups and industries out lobby the local African groups to enacts laws and policies in the outside groups' favor, and to the local citizens' demise (Kshetri, 2011).

2.8 Regulatory Environment in Africa

Africa creates fewer new firms than any other region in the world (Klapper & Love, 2010; Munemo, 2012). Regulation is largely to blame. In Sierra Leone, for example, formal firms often pay as much as three times their profit in taxes. In Angola, the procedures to formalize a business often take 1,000 days or more (The Economist, 2006). These examples illustrate why many entrepreneurs throughout the continent strategically remain small and informal (Fadahunsi & Rosa, 2002). In response, many African countries are attempting substantial business entry reforms (Atchoarena & Delluc, 2001; Kent & Mushi, 1995; Okpara & Wynn, 2007). Some governments have even given small business owners the option to pay for a license that allows them to do business, while also remaining informal when it comes to paying taxes (Amine, & Staub, 2009). Most African countries also lack strong protection for property rights (Mbaku, 2007) in spite of available knowledge that developing economies cannot reach their economic potential without the ability to ensure impartial enforcement of contracts (Olson, 1996; Sievers, 2001).

2.9 Entrepreneurship and Corruption in Africa

Corruption causes a tremendous and detrimental impact on economic growth (Svensson, 2005). In Africa, corruption is identified as a major impediment to entrepreneurship (Goedhuys et. al., 2016). World Bank enterprise survey data (2015) shows some African countries are ranked 2nd in all categories behind Asia for corruption activity and its impact on factors that influence entrepreneurial growth.

2.10 Digital Divide in Africa

Accessing technology is a critical determinant to entrepreneurial success. Murthy et al. (2015) show that recent internet access by countries in Africa is enormously low, and that the observed digital divide is continually widening. In spite of this divide, however, explosive internet connectivity is occurring in some countries on the continent. Nigeria is leading the charge in millions of new internet users. Kenya, Madagascar, Malawi, Mali, Sudan, and Tanzania are some of the other top ten countries in millions of new internet users on the continent (Musarurwa & Jazri, 2014). Sadly though, this sudden increase across the region is also a major cause of an increase in cybercrime there (Krizinger & Solms, 2012). This phenomenon has prompted Oladipo (2015) to explain that cyber-crime is Africa's next big threat.

2.11 Informal Economy in Africa

The portion of Africa's economic activity that occurs in the informal economy is listed as 41.3 percent (Schneider, 2005). Although motivations for becoming an entrepreneur is increasingly becoming opportunity-based instead of necessity-based (Kshetri, 2011), a primary reason such a large portion of Africans trade in the informal economy is out of necessity (Schneider, 2005). For many citizens, the informal sector is the only place they can work in order to achieve a minimum standard of living (Schneider, 2005). But as we have presented earlier, excessive regulation is also a primary reason why people trade in the informal economy in Africa. Zimbabwe, Tanzania, and Nigeria contain the largest portion of informal economy activity accounting for 63.2, 60.2 and 59.4 percent respectively of official GDP.

Nigeria contains the largest population size of 182.2 million people out of all African countries, with Tanzania containing 53.5 million residents, and Zimbabwe having 15.6 million (Worldbank, 2015). One study found that 69 percent of potential entrepreneurs in Nigeria would not formally register their businesses, while only 19 percent would (Kshetri, 2011; Rheault & Tortora, 2008).

With a population of 55.0 million, South Africa is considered the largest center of entrepreneurial activities in Africa (Ford, 2009). Along with Mauritius (1.3 million population), Namibia (2.5 million population) and Botswana (2.3 million population), these four countries rank among the world's top 50 countries in entrepreneurial climate and ease of doing business (Kshetri, 2011; The Economist, 2006a).

3. Findings and Discussion

There are several findings we wish to highlight. First, the findings on corruption in Africa lead us to question whether *corruption* as language and practice leads to a broadly accepted notion that corruption exists much more so in the region than it actually does. Many practices that are referred to as "corruption" in informal settings are actually similar to actions that are considered *license-*, *permits-*, *expedite fees-*, and other similar collections in formal settings. If any of these practices are otherwise identical with the exception being the level of formalization among a particular governing institution or person, then this phenomenon currently conceptualized as corruption should be shed in a different light.

Consider any country in a least developed nation that has government bodies spread throughout the country. The degree of formalization and centralization of many of its government practices and procedures may be far less formal than those same practices and procedures in highly developed nations. Thus, the only difference between some of that which is considered corruption in Africa, and which is broadly accepted as legal and legitimate in developed countries, may simply be a matter of language. If some activities in Africa are no different than a city comptroller or cashier in a small city in the U.S. performing the same action, except in a formal manner, then the implications to the broadly accepted notion of Africa being highly corrupt could be substantial.

Second, the findings and statistics presented above on the informal economy in Africa reveal an interesting story when population sizes are factored into consideration. The combined populations in 2015 of the previously presented top four countries in Africa based on entrepreneurial activities, Mauritius, Namibia, Botswana, and South Africa amount to one-third (33.5 percent) of Nigeria's total population (Worldbank, 2015). If 69 percent of potential entrepreneurs in Nigeria's population go on to operate in the informal economy, then this number of informal economy entrepreneurs likely far exceeds the total number of entrepreneurs in all four of the top African entrepreneurial countries. It is also quite conceivable that the number of informal economy entrepreneurs in Nigeria may also exceed the *total combined population* in all four countries as well (See Table 1).

Top Informal Economy Countries in Africa	Population in 2015	
Tanzania	53,470,420.00	
Nigeria	182,201,960.00	
Zimbabwe	15,602,750.00	
Total	251,275,130	
In World's Top 50 Entrepreneurial Countries	Population in 2015	% of Nigeria's Population
South Africa	55,011,980.00	30.2%
Namibia	2,458,830.00	1.3%
Botswana	2,262,490.00	1.2%
Mauritius	1,262,610.00	0.7%
Total	60,995,910	33.5%

Table 1: Population per Top Entrepreneurship Countries in Africa

Nigeria's population size in 2015 is nearly three-fourths that of the U.S. white population (73.52 percent), and is four and one-quarter times larger than the U.S. black population (426.2 percent). Nigeria's population is more than half, 56.7 percent, that of the total U.S. population (U.S. Census, 2015). Given the enormous size of Nigeria's informal economy (approximately 60 percent of official GDP) we can surmise that self-employment and entrepreneurship are tremendously prevalent in that country.

Even after considering the number of micro-enterprises in the country, with such a large population size, the number of entrepreneurial firms larger than micro-enterprises may also be substantial. Certainly, empirical investigations in this area will yield interesting results that are likely hidden among mainstream research. Similar investigations in Tanzania and Zimbabwe may also yield surprising and interesting results relative to other regions around the world, including in *OECD* countries.

These statistics help shed light on a particular angle not well-discussed in the entrepreneurship literature: While the state of African entrepreneurship can benefit from improvement, it may not be as dismal as it currently seems, especially to outsiders. Researchers can likely learn from insiders who are privy to a different and more complete perspective on African entrepreneurship and thereby help to minimize any possible distortions and omissions. Implications of minimizing such distortions are many. Some are discussed later in this paper.

Third, earlier in this paper, we questioned whether any trade-offs between the advantages and disadvantages of operating in either the informal or formal economy differ among entrepreneurs in the U.S. compared to those in Africa. From the findings above on Africa, we now expand our list of trade-offs (See Table 2). We believe Table 2 can serve as a helpful teaching tool to expose entrepreneurs to some of the hidden benefits and costs that accompany their choice of *in which economy to operate*. Table 2 shows that the choice to operate fully in the formal economy carries 15 advantages, compared to only 6 advantages for choosing to operate fully in the informal economy. Note that the opposite form of each advantage serves as a disadvantage for the counter choice. Solely from a quantitative perspective the choice to operate in the formal economy far surpasses the informal economy choice. Though we do acknowledge that this analysis weights all trade-offs equally. Further studies should assess the relative weights that people making such choices assign to each trade-off.

Advantages of Formal Economy		Advantages of Informal Economy	
1	access to finance and market information		
2	access to public infrastructure and services	1	legal barriers to entry are sidestepped
3	enforceable commercial contracts	2	set up, licenses, taxation fees avoided
4	limited liability	3	quicker time to launch
5	clear bankruptcy and default rules	4	regulation avoided
6	access to government subsidies and incentives, including procurement bids and export promotion packages	5	non-exposed …not targeted for non-business-related expenses (e.g., bribery, extortion).
7	membership in formal business associations	6	"unemployed" and "employed" (dual identity)
8	access to a formal system of social security		
9	eligibility for external financing		
10	enhanced growth opportunity		
11	property rights protection		
12	ability to establish a *brick-and-mortar* presence		
13	assets need not remain liquid		
14	business can exist on public registries		
15	undisputedly employed		

Table 2: Trade-offs of Informal vs. Formal Economy in Africa

4. Summary and Conclusions

This study provides two main contributions. First, it argues and introduces evidence to support that, just as the prevalence of black entrepreneurship in the U.S. is likely understated, so too is the prevalence of African entrepreneurship likely understated. Moreover, given Nigeria's huge and growing population size, our study suggests that the number of entrepreneurs in Nigeria may exceed that of many other countries throughout the world. Kenya, Tanzania, Zimbabwe, Ghana, Sierra Leonne, Zambia, and others may be similar.

The second contribution is that this study shows that there are many more advantages to operating in the formal economy than there are to operating in the informal economy. Educators can use our typology in Table 2 to highlight some of these hidden aspects to people who will be confronted with this choice. This study also argues that "*corruption*" as language and usage may serve as a barrier to connecting entrepreneurs in Africa and outsiders who may be seeking people and places to partner with for entrepreneurship. We believe that if people more critically control for regional behaviors, they will find more grounds of commonality than otherwise obvious. Nonetheless, the need to minimize corruption and regulation for new and existing entrepreneurs to increase formal economy entrepreneurship is supported in also this paper.

5. Policy Implications

Policy-makers should implement strategies to minimize distortions on entrepreneurship across the African region. For Nigeria, these strategies should include articulating, conveying, and leveraging the large competitive advantage that Nigeria offers in terms of entrepreneurship capital. The way Nigeria is captured in the global entrepreneurship and economic literature versus the way it actually *is* likely differs. Potential outcomes to minimizing such distortions are many. First, a more favorable environment for FDI may be revealed. This change could encourage Africa's foreign trade partners to participate more strategically in helping to create the types of institutional, legal, and regulatory environments that attract sufficient FDI. Second, a more accurate assessment of entrepreneurial intentions, propensity, and activities may entice investors to look more favorably at social, micro-, and entrepreneurial investment opportunities in the region. Third, given Africa's enormous entrepreneurship human capital, external private foundations may view the entrepreneurial opportunities in partnering with Africans in an increasingly favorable light. Fourth, entrepreneurial universities may look more favorably at recruiting prospective African entrepreneurs to study in their programs abroad.

Because of bounded rationality, informal economy entrepreneurs are likely to perceive only the positive benefits of trading in the informal economy. When more complete information is considered which includes the costs of forgoing the advantages of the formal economy, the rational choice seems to favor choosing to operate in the formal economy. Quantitatively, there are 12 advantages and 6 disadvantages to operating in the formal economy. In contrast, there are only 6 advantages in addition to 15 disadvantages to operating in the informal economy. Recall that the opposite of each advantage is a disadvantage for the opposite choice. Hence, 15:6 yields a much better ratio than 6:15. We therefore believe that education policies promoting awareness of these differences to current and prospective entrepreneurs will yield tremendously positive results.

Governments, academicians, and researchers should investigate the language of *corruption,* considering the broader political interpretations and implications of its usage. If an outside group such as investors, co-members in a multi-nation organization with regulatory oversight, or larger trade partners, learns that a nation collects license, permits, expedite fees, and other forms of taxation, but that it does so in an informal manner, the potential for interpretational distortions are substantial.

6. Limitations of Study

One limitation to this study is that there is no such thing as a *one-Africa* as a research subject. Africa is extremely rich and diverse in social and political culture, geography, religion, and business contexts. Much more in-depth and country-specific research is needed, versus treating Africa as a singular research subject. An additional limitation to our work is that we do not consider qualitative nor weighted values in our analysis of trade-offs.

7. Future Research Recommendations

We have identified several research directions that should help advance knowledge in this very important area of advancing entrepreneurship models in Africa. First, future research studies should survey informal economy entrepreneurs to identify weighted averages that these entrepreneurs assign to each trade-off. Research should also identify if any patterns exist among the weights as people change from one economy to the other, or among people who trade simultaneously in both economies. Second, research should investigate the actual number of micro-enterprises versus non-micro-enterprises in countries such as and similar to Nigeria, Tanzania, and Zimbabwe with high informal economy activity. Third, research should investigate how *informalization* moderates or mediates corruption. Fourth, research should investigate if additional hidden entrepreneurial competitive advantages exist in other African countries. Fifth, research should investigate best practices for decreasing regulation in a manner that attracts informal economy entrepreneurs in Africa to the formal economy. Sixth, research should investigate if "*corruption*" is used as a political language tool for Africa. Our seventh and final recommendation is to investigate ways in which entrepreneurial education programs in outside countries can partner with informal economy entrepreneurs, students, and other entrepreneurs to create entrepreneurial solutions to regional, international, and global problems.

References

Amine, L.S. & Staub, K.M. (2009). Women entrepreneurs in Sub-Saharan Africa: An institutional theory analysis from a social marketing point of view. *Entrepreneurship & Regional Development, 21*(2), 183-211.

Atchoarena, D., & Delluc, A. M. (2001). Revisiting technical and vocational education and training in Sub-Saharan Africa. *IIEP Paris*.

Bates, T. (1996). The financial capital needs of Black-owned businesses. *Journal of Developmental Entrepreneurship*, *1*(1), 1-15.

Bradford, W. D. (2003). The wealth dynamics of entrepreneurship for black and white families in the U.S. *Review of Income and Wealth*, *49*(1), 89-116.

Butler, J. S. (1991). Entrepreneurship and self-help among black Americans: A reconsideration of race and economics. Albany: State University of New York Press.

Chen, M.A. (2012). The informal economy: Definitions, theories and policies. *Women in Informal Employment: Globalizing and Organizing (WIEGO),* Working Paper, 1-26.

Cross, J.C. (2000). Street vendors, modernity and postmodernity: Conflict and compromise in the global economy. *International Journal of Sociology and Social Policy*, *20*, 29-51.

Crump, M.E.S. (2013). Black entrepreneurship: Formal versus informal economy exploitation. *Washington Business Research Journal, 3*(1), 85-111.

Crump, M.E.S., Hill, N.J., & Tayor, P.G. (2017). Examining minority population and the impact of informal economy activity on collected revenues in U.S. cities. *Washington Business Research Journal*, (*in-press*).

DeJaeghere, J. & Baxter, A. (2014). Entrepreneurship education for youth in sub-Saharan Africa: A capability approach as an alternative framework to neoliberalism's individualizing risks. *Progress in Development Studies, 14*(1), 61-76.

De Soto, H. (1989). The other path: The invisible revolution in the third world. London: Tauris.

Dreher, A., & Schneider, F. (2010). Corruption and the shadow economy: an empirical analysis. *Public Choice*, *144*(1/2), 215-238.

Edgcomb, E.L., & T. Thetford (2004). *The Informal Economy: Making it in Rural America*. Aspen Institute: Washington, DC.

Fadahunsi, A., & Rosa, P. (2002). Entrepreneurship and illegality: Insights from the Nigerian cross-border trade. *Journal of Business Venturing*, 17, 397–429.

Fairlie, R. W. (1999). The absence of the African-American owned business: An analysis of the dynamics of self-employment. *Journal of Labor Economics*, *17*(1), 80-108.

Fairlie, R. W., & Meyer, B. D. (1996). Ethnic and racial self-employment differences and possible explanations. *The Journal of Human Resources*, *31*(4), 757-793.

Fairlie, R. W., & Meyer, B. D. (2000). Trends in self-employment among white and black men during the twentieth century. *Journal of Human Resources*, *35*(4), 643-669.

Fairlie, R. W., & Robb, A. M. (2007). Why are black-owned businesses less successful than white-owned businesses? The role of families, inheritances, and business human capital. *Journal of Labor Economics*, *25*(2), 289-323.

Ford, N (2009). Low valuations hide true worth of Africa's best. African Business, (352), 14-21.

Goedhuys, M., Mohnen, P., & Taha, T. (2016). Corruption, innovation and firm growth: firm-level evidence from Egypt and Tunisia. *Eurasian Business Review*, *6*(3), 299-322.

Guillermo, V. (2008). What is the size of the pie? Measuring the informal economy in Latin America and the Caribbean. *Money Affairs, 21*(2), 161-191.

Hofstede, G. (1983). National cultures in four dimensions – A research-based theory of cultural differences among nations. International Studies of Management and Organization, 13(1-2), 46-74.

Hout, M., & Rosen, H. S. (2000). Self-employment, family background, and race. *Journal of Human Resources*, *35*(4), 670-692.

Kent, D. W., & Mushi, P. S. (1995). *The Education and Training of Artisans for the Informal Sector in Tanzania. Education Research. Serial No. 18*.

Khavul, S., Bruton, G. D., & Wood, (2009). Informal family business in Africa. *Entrepreneurship: Theory & Practice, 33*(6), 1219-1238.

Kiggundu, Moses N. (2002). Entrepreneurs and entrepreneurship in Africa: What is known and what needs to be done. *Journal of Developmental Entrepreneurship, 7*(3), 239-258.

Klapper, L., & Love, I. (2010). The Impact of Business Environment Reforms on New Firm Registration. World Bank Policy Research Working Paper No. 5493. Available at SSRN: https://ssrn.com/abstract=1721331

Köllinger, P., & Minniti, M. (2006). Not for lack of trying: American entrepreneurship in black and white. *Small Business Economics, 27*(1), 59-79.

Krizinger, E. & von Solms, SH (2012). A framework for cyber security in Africa. *Journal of Information Assurance & Cybersecurity, (2012)*, p. 1-10.

Kshetri, K. (2011). Institution and economic foundations of entrepreneurship in Africa: An overview. *Journal of Developmental Entrepreneurship, 16*(1), 9-35.

Libombo, D.B. & Dinin, A. (2015). Entrepreneurship education in the context of developing countries: Study of the status and the main barriers in Mozambican higher education institutions. *Journal of Developmental Entrepreneurship*, *20*(3), 1-26.

Macias, B. & Cazzavillan, G. (2010). Modelling the informal economy in Mexico. A structural equation approach. *The Journal of Developing Areas, 44*(1), 345-365.

Maloney, W. F. (2004). Informality revisited. *World Development, 32*(7), 1159-1178.

Mbaku, JM (2007). Institutions and Poverty Alleviation in Africa. African & Asian Studies, 6(1/2), 107-134.

Mitra, D (1999). Endogenous Lobby Formation and Endogenous Protection: A Long-Run Model of Trade Policy Determination. American Economic Review, 89(5), 1116-1134.

Munemo, Jonthan (2012). Entrepreneurship in developing countries: Is Africa different? *Journal of Developmental* Entrepreneurship, *17*(1), 1-12.

Murthy, V. N., Nath, R., & Soleimani, M. (2015). Long term factors of internet diffusion in Sub-Saharan Africa: A Panel Co-Integration Analysis. *Journal of International Technology and Information Management*, *24*(4), 5.

Musarurwa, A., and Jazri, H. (2014). A proposed framework to measure growth of critical information infrastructure protection in Africa. International Conference on Emerging Trends and Computer Communications, May. Namibia. p. 85-90.

Mvunganyi, J (2010). African Youth Bear Brunt of Global Economic Crisis, 25 January, available at: http://www1.voanews.com/english/news/africa/African-Youth-Bear-Brunt-of-Global-Economic-Crisis-82601422.html

Okpara, J. O., & Wynn, P. (2007). Determinants of small business growth constraints in a Sub-Saharan African economy. *SAM advanced management journal*, *72*(2), 24.

Oladipo, Tomi (2015). Cyber-crime is Africa's 'next big threat', experts warn. BBC.

Olson, M (1996). Big bills left on the sidewalk: Why some Nations are rich, and others are poor. *Journal of Economic Perspectives*, 10, 3-24.

Omer, N., Van Burg, E., Peters, R. M., & Visser, K. (2015). Internationalization as a "work-around" strategy: How going abroad can help SMEs overcome local constraints. *Journal of Developmental Entrepreneurship*, *20*(2), 1-22.

Prahalad, CK (2005). Aid is not the answer. Wall Street Journal (Eastern edition), A.8.

Rheault, M and B Tortora (2008). Nigeria: Drivers and challenges of entrepreneurship. www.gallup.com/poll/106345/nigeria-drivers-challenges-entrepreneurship.aspx.

Rin, M., Sembenelli, A., & Giacomo, M. (2010). Corporate taxation and the size of new firms: evidence from Europe. *Journal of the European Economic Association*, *8*(2-3), 606-616.

Robinson, P.J.A., Haugh, H.M., & Obeng, B.A. (2009). Entrepreneurship and innovation in Ghana: Enterprising Africa. Small Business Economics, *32*, p.331-350.

Schneider, F. (2002). Size and measurement of the informal economy in 110 countries around the world. Paper presented at Workshop of Australian National Tax Centre, Canberra, Australia.

Schneider, F. (2005a). Shadow economies around the world: what do we really know? *European Journal of Political Economy*, *21*(3), 598-642.

Schneider, F. (2005b). The size of shadow economies in 145 countries from 1999 to 2003. *The Brown Journal of World Affairs. 11*(2), 113-129.

Schuck, P. H., & Litan, R. E.. (1987). Regulatory reform in Peru regulation. *AEI Journal on Government and Society, 11*(1), 36-43.

Sievers, SE (2001). Competitiveness and foreign direct investment in Africa. In Policies to Promote Competitiveness in Manufacturing in Sub-Saharan Africa, SM Nsouli (eds.). Paris: Organization for Economic Cooperation and Development.

Singh, R. P., Crump, M. E. S., & Zu, X. (2009). Family matters: Examining how self-employed blacks and whites differ in having self-employed parents. In Bradshaw, M..V. & Carrington, P. T. (eds.) *Entrepreneurship and its Economic Significance, Behavior and Effects* (pp. 1-20). New York, NY: Nova Science Publishers.

Snyder, K.A. (2004). Routes to the informal economy in New York's East village: crises,economics and identity. *Sociological Perspectives*, *47*, 215-240.

Svensson, J. (2005). Eight questions about corruption. *Journal of Economic Perspectives, 19*(3), 19-42.

The Economist (2006). Special Report: The flicker of a brighter future - Business in Africa, Business in Africa, 380(8494), 80.

Walstad, W. B., & Kourilsky, M. L. (1998). Entrepreneurial attitudes and knowledge of black youth. *Entrepreneurship Theory & Practice*, *23*(2), 5-18.

Webb, J.W., L. Tihanyi, R.D. Ireland, & D.G. Sirmon (2009). You say illegal, I say legitimate: Entrepreneurship in the informal economy. *Academy of Management Review, 34*, 492 – 510.

Williams, C.C. (2008). Beyond necessity-driven versus opportunity-driven entrepreneurship: a study of informal entrepreneurs in England, Russia and Ukraine. *International Journal of Entrepreneurship and Innovation, 9*, 157-166.

Williams, C.C. (2010). Spatial variations in the hidden enterprise culture. *Entrepreneurship and Regional Development*, *22*, 403-423.

Williams, C.C, & S. Nadin (2010). The commonality and character of off-the-books entrepreneurship: a comparison of deprived and affluent urban neighbourhoods. *Journal of Developmental Entrepreneurship, 15*, 1-14.

Williams, C.C., & J. Round (2007). Entrepreneurship and the informal economy: a study of Ukraine's hidden enterprise culture. *Journal of Developmental Entrepreneurship, 12*, 119-136.

Williams, C.C., & J. Round (2008). Retheorizing the nature of informal employment: some lessons from Ukraine. *International Sociology, 23*, 367 – 388.

Williams, C.C., & J. Round (2010). Spatial variations in the character of off-the-booksentrepreneurship: lessons from a study of contrasting districts in Moscow. *International Journal of Entrepreneurship and Small Business, 10*, 287-301.

Williams, C.C., & Shahid, M.S. (2016). Informal entrepreneurship and institutional theory: Explaining the varying degrees of (in)formalization of entrepreneurs in Pakistan. *Entrepreneurship & Regional Development, 28*(1-2), 1-25.

Worldbank.org (2015). http://data.worldbank.org/indicator/SP.POP.TOTL?cid=GPD_1 Accessed May, 14, 2017.

Social enterprises: challenges, constraints and operating conditions regarding moderation of social injustice

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Abstract
No matter what the guiding mission, social entrepreneurs face a host of challenges and limitations regarding their stated objectives. This paper examines some of issues and provides an analytical framework for the clarification of those engaging or evaluating the performances of such organizational units. It reviews current developments with the aim of presenting a limited research agenda going into the future.

1. Introduction

No matter what the nature or their implied individual guiding mission, social enterprises (SEs) face a host of challenges and limitations regarding the implementation of their stated or implied objectives. This study examines the expanding but fragmented state of social enterprises (SEs) (see Milway, 2014), with a view to getting a better grasp, of the challenges associated with their contributions to the moderation of what are generally perceived and accepted as social injustices.

A social enterprise, for the purpose of this discussion therefore, may be defined as a *for-profit or non-profit business that employs people, and earns income in order to help address perceived social or environmental imbalances* (adapted from Business Dictionary.com). Three key issues emerge from this definition: a) a social enterprise is a for-profit or a non-profit organization; b) it employs people and earns income; and c) it uses people and income to tackle perceived social and environmental ills. Alternatively, SEs may be defined as "… *entrepreneurial organizations that innovate to solve problems*" (Bugg-Lavine, Kogut, & Kulatilaka, 2012).

Social entrepreneurs working through social enterprises, on the other hand, may be defined as *independent business individuals, who act as change agents for society, working towards innovative approaches to existing systems or conditions, by seizing opportunities others may have missed, in order to develop positive sustainable solutions for society* (adapted from *Business Dictionary.com*). From this, three key issues may be highlighted: 1) social entrepreneurs are business individuals; 2) these individuals are involved in innovative approaches aimed at missed opportunities; and 3) those opportunities are associated with sustainable solutions for societal improvement or betterment.

Drawing heavily on the themes identified above, and for the purposes of this paper, *social entrepreneurship may be defined as the activities of independent business individuals working to provide innovative changes to existing systems, developing sustainable solutions for societal improvement and larger mega outcomes* (see Kaufman, 2014). As such, it is the is the behavior and coming together of people with business-like methods, applying innovative solutions to social problems (see K@W, 2003).

Social injustice, on the other hand, is a recurring phenomenon which presents itself with variability in many social circumstances, entrenched by law and custom, and in many cases, that has become buttressed into broad normalized societal, passive acceptance and tolerance. As such, social injustice may be defined as *the unfair and improper administration of laws, such that persons, of particular ethnic origins, gender types, levels of wealth, racial types, or religion, are treated unequally, and with varying degrees of bias and prejudice* (compare with "*social justice*" in BusinessDictionary.com).

Having set the parameters for this discussion, the remainder of this paper is organized in this way: The following section examines social enterprises, in terms of the challenges facing those units.

The next section focuses on the constraints and limitations facing social enterprises, in terms of "*the delivery of the goods*." This is followed by a discussion of the ideas presented. The paper then concludes with some recommendations for future research.

2.0 Social Entrepreneurship in Action Today.

Social ventures can be regarded as hybrids of government intervention in the economy, and in the operations of business enterprises. Sometimes, as will be discussed later, the regulatory environment warrants strict adherence to their social goals and financial reporting requirements. One enduring characteristic of such organizations is the concern to address the needs of disadvantaged and marginalized groups, by effecting changes in the status quo or "equilibrium" (see Osberg & Martin, 2015), regarding the moderating the severity of those, for quality of life improvements. Sometimes, the benefits of the entity's output may be extended to other groups, and to the wider society as with environmental issues. Besides, some ventures may be operating in a hybrid form, as for-profits and non-profits entities, conditions that would be difficult for governments and businesses, in their search for viability, and moderation of the dependence on government aid and charitable donations (see TKacz, 2016; Martin & Osberg, 2015; Osberg & Martin, 2015). Some SEs might provide goods and services to some groups of customers, who, for a social good, may be willing to pay a premium. Here, those ventures might have market offerings that are necessary services, sold at more affordable prices than other providers, while making a profit (see Bugg-Lavine, Kogut, & Kulatilaka, 2012). An element of this can be seen in SE adoption and adaptations of the *Freemium model* (see Businessdictionary.com). This, a business model, permits free basic services provision, with the requirement to pay for any service deemed to be of premium quality.

Social entrepreneurial enterprises also convert the uncertainties found in their respective environments (the status quo and the existing economic "equilibrium"), into manageable risks. Thompson & MacMillan (2010) posit that the entrepreneurs behind those ventures, create models that go through iterations that test their operating assumptions. These models are altered continually, by what is termed "*discovery-driven planning,*" thereby lowering the costs of SEs. Here, too, the entrepreneurs within those ventures envision the uncertainties of what has not yet perceived by would-be competitors (see McGrath & MacMillan, 1995).

2.1 Funding

A constant in the organizational life of SE ventures is the need for sustainable cash flows. And as will be discussed later, an SE that delivers social returns can gain access to seed capital from donor groups—without having to sacrifice claims on its assets in exchange. Such seed capital, too, can be increased with equity capital, that can create residual claims on assets and debt capital, with claims on assets and cash flow. Note also, that this is in addition to government-provided subsidization from taxpayers or donors, whether or not the entity is operating as a for-profit or a non-profit (see Bugg-Levine et al., 2012; Osberg & Martin, 2015). Some tax-reform initiatives may moderate some existing relationships. However, the largest group of beneficiaries are potentially, those who suffer most from the disadvantages being experienced under the status quo, or the accepted economic "equilibrium" as a societal norm (see Martin & Osberg, 2015).

Crowdsourcing. Two general approaches used to finance SEs today, especially during the start-up phase, are crowdsourcing and crowdfunding. One notable and enduring feature of SEs, especially those in the startup phase, is the challenge of time management. It can play a very significant role in finding financial resources. This challenge also relates, in part, to positioning the SE to take advantage of available resources on the internet. The crowdsourcing funding model is regarded as a quick way of finding interested investors, by using available websites dedicated to this purpose. As startups, SEs can organize around the benefits that can be gained from these websites, which, among other things, include:

1. Providing a virtual marketplace for investors, addressing needs associated with a variety of budgets requirements in different economic sectors.
2. Giving SE founders a place to showcase their businesses, such that this makes them more attractive to would-be investors.
3. Bringing investors and founders together, harmonizing their common business interests, their deadlines, and their finances.
4. Sharing communication, and thus providing founders and investors with positive, effective, and easy-to-use fora, to discuss projects in which they have a common interest.
5. Assisting founders and investors throughout the critical negotiation phase, offering advice and consultation, with the goal of ensuring that all parties are satisfied, before investments are finally secured (Cremades, 2016).

Crowdfunding. SEs also have available to them the crowdfunding model. Here, social entrepreneurs can avail themselves of another funding method, but one which requires financial discipline and organization, by tapping into the traditional crowd funding phenomenon that has been taking place online since 2003 (see Rose, 2016). Crowd funding is about individuals coming together to finance a business startup. It is important to note that crowd funding can take place both online and off-line, falling into two subcategories: a) donation crowd funding, and b) equity crowd funding.

With donation-based crowd funding, donors do not have any ownership or partnership related to the launching of the business. This is encouraged where money can be had, without giving any equity. Among the organizational benefits are: a) access to capital, b) availability of a great marketing tool to gain more exposure, and c) free PR or public relations. Addressing SE capital deficits by way of equity crowd funding is a matter for individual angel investors (funding capital investment in amounts of about $150,000). Among the SE benefits would be: a) the use of web platforms to get funding from a broader online group; b) greater visibility and credibility; and c) being able to generate buzz (see Cremades, 2016).

An interesting phenomenon regarding donation-based funding has been the donor interest of hedge-fund managers. Constable (2017) in a report in the *Wall Street Journal* suggests that hedge fund managers' donations to SEs stem, in part, from a motivation to survive. Accordingly, donations are less a reflection of benevolence, and are much more an issue associated with company survival. This is especially so, when those businesses are facing financial difficulties. This sentiment was supported by McCambridge (2017b), who adds that SEs must come to expect, therefore, only one-time donations from such entities facing financial distress.

Nonetheless, more recent innovations in SE financing have provided a fillip to the sector in terms of positioning then for greater effectiveness. Regarding these innovations, some initiatives, such as loan financing guarantees, are of special import. Such guarantees allow for commercial debt with low interest payments, saving the ventures and their donors from significant outflows in terms of interest payments. Quasi-debt securities, straddling some of the characteristics of: a) a form of debt, and b) as an equity investment for those registered as non-profits, represent another financing option. As such, they provide financial resources for entities registered as nonprofits, which debars them from obtaining equity capital. Such instruments are linked to the financial performance of the organization, while the holder of the security does not have direct claim on, and ownership of the venture. Terms and conditions of loan disbursements are calibrated such that, they incentivize managers to operate efficiently. The institutions making a loan, may seek a sharing of revenues, thus participating in the risk and returns. Since the loan is tied to the top revenue line, with covenants to contain organizational mission drift, this provides an incentive for efficient management (see Bugg-Levine et al., 2012).

The growing sophistication of the pooling of funds offers another channel of capital funding for today's social enterprise (SE). Here, financial intermediaries match their liabilities to investor needs. For example, the pooling intermediary keeping an investment share, may bundle portfolios from many micro lenders, separating them into lots, with varying gradations of risk: lower or safe returns for lower risk, purchased by normal or more conventional investors; and with the highest returns (which come with greatest potential for loss), and those with lower expected returns are attended by lower risk, similar to a convertible bond. Social impact bonds (SIBs) represent another dimension of innovative financing to assist SE ventures. Bonds are sold to private investors, who get a return, only if ventures succeed. The risk of failure is thus shifted from ordinary taxpayers to investors, taking calculated risks (see Bug-Levine et al., 2012). Some observers argue, however that social impact bonds (SIBs) are not bonds. In the United States, they are not considered to be present in sufficiently large enough numbers to dominate the economic space occupied by social enterprises (Cohen, 2014).

2.2 Some Institutional Challenges

The need for a compelling and clear vision of the future enables SE effectiveness. The strategic vision required must: a) provide direction; b) serve to mobilize followers; c) rationalize and align activities; and d) bring into being, the will required by actors as individuals or as teams, to achieve desired ends (that is, the effectiveness in changing the status quo or economic "equilibrium"). Yet, while all of this is necessary, it not sufficient for effectiveness. Another critical component is the necessity to have in place, clarity in terms of concrete measures to achieve the SE's vision. This strategic vision must also be aspirational. In terms of SE effectiveness, winning (the achievement of mission goals) must be given full meaning for actors within the various executing organizations (see Martin & Osberg, 2015).

In order to deliver the societal goods and the perceived necessary mega outcomes (see Kaufman, 2011), SEs must target customers and clients, as would pure for-profit, single bottom line ventures (see Martin & Osberg 2015). To achieve this end too, social entrepreneurship ventures, to be effective forces for social change, must mobilize capital for investment, to generate greater opportunities to finance projects that result in economic change, resulting in enhanced social conditions for people. This however, presupposes engagement of financial innovation, to enable access to larger amounts and suppliers of capital than before, for the benefit of those in greatest need of help (Bugg-Levine et al., 2012).

A very important determination, therefore, is the choice of business model. In this regard, SE ventures have available to them new possibilities as: a) for-profit models; b) Certified B Corps and B Corps; and c) L3Cs (Low-profit Limited Liability Companies) (See Leimsider, 2014; Honeyman, 2014). The B Corps are social enterprises verified by B Lab, a nonprofit organization certifying that those entities have attained high standards of transparency, accountability, and social and environmental performance. With the letter "B" standing for "benefit," the certification is open to corporations worldwide, and not just the legal entity called the "*benefit corporation*," found in the United States. Benefit corporations are pro-business, pro-market, pro-environment and pro-community corporations. B Lab certification is based on how companies create value for non-shareholding stakeholders, such as their employees, the local community, and the environment.

Going past performance standards based on the afore-mentioned dimensions, a firm would have to make amendments to its corporate charter, and to incorporate the interests of all stakeholders into the fiduciary duties of its directors and officers. Taking such steps means that firms are guided by fundamentally different governance philosophies than would traditional shareholder-centered corporations (see About B Lab, n.d.; What are B Corps? n.d.). Structurally speaking, too, however, McCambridge (2017a) reports that a recent study concluded, that in terms of perception, the public favors nonprofit SEs over for-profit social enterprises.

3.0 Some Growth Constraints: The Operationalization of Scaling

Some social Enterprises (SEs) face daunting challenges regarding efficiency and effectiveness (see Thompson & MacMillan, 2010). Collectively, their ability to supply products and services, and to secure mega outcomes (see Kaufman, 2014), remains a function of capital availability. Beyond institutional and structural constraints, associated with this, too, are those issues related to fundraising. A number of social venture goals are stymied by the inability to use the balance sheet and the business plan to present various combinations of risk and return to certain investor types. Among these would be equity investors, banks, Bond funds, venture capitalists, and the like. However, Bugg-Levine et al. (2012) posit that, properly enabled, they could be offering different risks and returns to different investors, instead of a blended return that holds for all, but would really be acceptable to just a few. Increasingly, those in SEs and some investors have concluded that all types of social enterprises can deliver returns that will make them attractive, given the right investors. Some businesses intending to use their ventures as forces for good, can use an assessment tool, which translates into a series of concrete actionable steps to assess, compare and improve social entrepreneurial impacts (Honeyman, 2014).

3.1 Scaling

Sustainability is a key factor for focssing efforts regarding nonprofits and for-profits (see Weerawardena, McDonald, & Mort, 2010). Social enterprises, especially those at the micro-enterprise level, face huge difficulties in their attempts to grow and scale. Beyond the need to have sustainable cash flows and sustainable business models, such ventures scale quite differently. In this regard, Gilkey (2014) posits that businesses have unique lifecycles. At the micro-level, many businesses start off with little or no upfront capital. At this stage, issues relating to capital may be tied to dealing with resource needs. Surpluses, if any, may go to more strategic uses for people, processes, and systems. Gilkey (2014, p.5) traces a five-stage transition process regarding business growth and scaling:

a) **Stage 0**—the Aspirational stage. Here, individuals, desirous of starting a business are in love with the notion of having a business, but also have an entrepreneurial commitment deficit.
b) **Stage 1** — the Early stage. Here, entrepreneurs, having made a decision to start, are in the process of establishing their market offerings.
c) **Stage 2** — the Growth stage. At this stage, entrepreneurs having a business plan would be growing revenue streams, new customers and new clients. At this stage too, entrepreneurs have an effective business model, even when they are not working at full tilt.
d) **Stage 3** — the Crucible stage. Here, entrepreneurs are operating at full capacity, but the supply of product lags the demand. There is also the resistance to give up on tried organizational production patterns that have brought them to this point. Therefore, this stage may also have, a persistent "stickiness" to it.
e) **Stage 4** — the Cruise stage. Having arrived at stage 4, this provides evidence that entrepreneurs: a) have gained insights into what constrained them at Stage 3; b) have removed some bottlenecks; and c) would be operating at full tilt. Should they not have the balanced team and support systems necessary to concentrate on core competencies, a plan would be in place to gain those.

Having arrived at Stage 4, social enterprises may face new challenges and possibilities. Among them would be to move to a new business model, or to create a franchise. Nevertheless, the business may lose a critical resource at this juncture. Competitors may cause a loss of market share, thus adversely affecting operations. Key personnel may leave, which, while not causing a reversion to either Stage 0 or Stage 1, can erode the SE's ability to carry out its mission, or its effectiveness regarding the provision of solutions for clients and customers. The owners of social enterprises at this stage too, may also move on to other, or even sell their businesses. Thus they become serial entrepreneurs either by: a) design, or b) getting back into a new entrepreneurial activity because of disenchantment, or c) being drawn back in to repeat a past success. Gilkey (2014) argues that it is more difficult to move up the organizational life cycle from Stage 3, than it is to remain there.

However, to operationalize scaling, and although some approaches may not apply to all ventures across the board, certain pre-conditions must be in place. Several models have been advanced suggesting the correct path and the critical success factors (CSFs) that entrepreneurial units should address, in order to ensure growth and sustainability. For Harnish (2014), key factors include: 1) attraction of the right people, meaning, a team; 2) creation of a truly differentiated strategy, meaning, the organization has modified and improved upon the seeming weaknesses of competitive groups; 3) flawless execution; and 4) possession of a great deal of cash to ride out economic storms. The cash factor brings with it, other conditions of its own: a) the need to understand how to manage cash flow, b) how to fund growth, and c) knowledge of the basics of financial control (Hoffman & Finkel, 2014).

3.2 Accounting-related Risks

Some SEs, especially non-profits, face especially, serious financial risks, in the general spectrum of other organizational risks they face. Among them are: a) managing the venture's cash and investments; b) accounting for grants, activities, and overhead; and c) a discretionary, ad hoc, or emergency project (Feiler & Nayowith, 2017). Irrespective of the structure of the enterprise, or the manager types associated with the SE's finances, be they part-time, expert, volunteer, in-house or outside accountants; they need to be knowledgeable about all the reporting GAAP requirements that apply. If the venture's chart of accounts, however, is set up correctly, some necessary reporting will be facilitated. Cost accounting systems must be organized and set up for all possible audits, if especially, SE operations involve government contracts. First-time women- and other minority-owned businesses, in particular, could face an uphill task of dealing with the required paperwork associated with government contracts. To gain necessary experience, however, some women- and other minority-owned businesses can team up with bigger firms, as part of the bigger companies' supply chains (see Rawson, 2016).

4. Discussion

Even when examining the work of the most successful SEs, they are reportedly meeting only a small portion of the needs of their constituents (see Milway, 2014). Women- and other minority-owned businesses operating as a subset within the broader economic space of SEs, face some characteristically unique challenges related to some persistently stubborn historical patterns. Today, to gain access to the "American Dream," entrepreneurship is being used as a lever by women and minority groups. However, appropriately integrated approaches may be needed to moderate centuries-old institutional biases. The role played by access to government contracts has already been referenced. Social entrepreneurial businesses, nonetheless, require the economic cultural acceptance and existence, of more inclusive supply chains, and their corresponding value chains (see Harper, 2010). Survival at the growth stage of some related women- and other minority-owned businesses may require, in some instances, acceptance of second-tier supplier roles to larger businesses. This may lead however, to positive mention by first-tier suppliers, and can position some SEs to become eventually, prime suppliers themselves (see Bari, 2016).

A number of socio-economic groups have historically been excluded from operating in some of the more valuable sections of the national supply chains in the economy. The complexity of the problems faced, both social and economic, warrants multidimensional approaches and solutions. Reflecting that complexity, some solutions by the SE sector have created several organizational and corresponding legal structures to address the related issues. As discussed above, SE structures have basically taken the form of for-profits and nonprofit entities. In the broader economic sphere, too, SE units have ranged in size from micro, to small-to-medium enterprises (SMEs). Some SE may have well-defined missions. However, they vary in the performance outcomes of effectiveness and efficiency, based on: a) the nature and quality of personnel, 2) their staffing levels, 3) on-board training, and 4) paid or all-volunteer employee units (see Love, 2016; Rose, 2016; Maurya, 2016). Critical elements facing all the social enterprise types discussed have been those of finance and funding. Of the several funding and innovative financing models presented, some liabilities associated with funding SE ventures however, are now being securitized and sold (see Bugg-Levine et al., 2012).

6. Conclusion

Drawing heavily on secondary sources, this paper attempted to provide insights into some of the new directions and opportunities available to enable SEs to execute their individual missions. In this regard, a suggested area for research would be the creation of surveys to measure the extent of the penetration and impact of some of these new financing options on the operations of SEs. Another area of useful research would be the existential issue of the extent to which SE start-ups have ---using the Gilkey Model, (say) for example---are remaining at, or reverting back to Stage-03 of the model, thus seeking to identify causes of SE failure to graduate to Stage-04. From the above, it follows therefore, that where the missions of SEs entail the reduction or moderation of the sometimes, ill-defined social injustices tied to socio-economic ills of the society, knowledge of available options and techniques must become more widespread, in order to gain more traction regarding the delivery of promises and mega societal outcomes.

References

About B Lab (n.d.). About B Lab. Available at https://www.bcorporation.net/what-are-b-corps/about-b-lab

Bari, S. (2013). Breaking through. Washington, DC: Women's Business Enterprise National Council.

Bugg-Lavine, A., Kogut, B., & Kulatilaka, N. (2012, Jan-Feb). A new approach to funding social enterprises. *Harvard Business Review.* Available at https://hbr.org/2012/01/a-new-approach-to-funding-social-enterprises?autocomplete=true

Cohen, R. (2014, April 28). Some unanswered questions about benefit corporations, L3Cs, and social enterprise more generally. *NPQ*. Available at https://nonprofitquarterly.org/2014/04/28/some-unanswered-questions-about-benefit-corporations-l3cs-and-social-enterprise-more-generally/

Constable, S. (2017, December 3). Give to get: what motivates some hedge funds' charity. *Wall Street Journal*. Available at https://www.wsj.com/articles/give-to-get-what-motivates-some-hedge-funds-charity-1512356640

Cremades. A. (2016). *The art of startup fundraising*. Hoboken, New Jersey: Wiley.

Feiler, J. & Nayowith, G. B. (2017). *The non-profit risk book*. Boston, USA: Walter de Gruyter Press.

Gilkey, C. (2014). *The small business lifecycle*. USA: ProductiveFlourishing.com.

Greenhalgh, L. & Lowry, J. H. (2011). *Minority business success*. Stanford, California: Stanford Business Books.

Harnish, V. (2014). *Scaling up.* Ashburn, Virginia, USA: Gazelles, Inc.

Harper, M. (2010). *Inclusive value chains*. New Jersey: World Scientific.

Hoffman, J. & Finkel, D. (2014). *Scale: Seven proven principles to grow your company and get your life back*. USA: Penguin.

Honeyman, R. (2014). *The B Corp handbook*. San Francisco, USA: Barret-Koehler Publisher, Inc.

Kaufman, R. (2011). *The manager's guide to Mega thinking and planning*. Amherst, Massachusetts: HDR press, Inc.

K@W (2003, Dec 17). New Definitions of Social Entrepreneurship: Free Eye Exams and Wheelchair Drivers. Available at http://knowledge.wharton.upenn.edu/article/new-definitions-of-social-entrepreneurship-free-eye-exams-and-wheelchair-drivers/

Leimsider, R. (2014, June). 5 Bad reasons to start a for-profit social enterprise. *Harvard Business Review.* Available at https://hbr.org/2014/07/5-bad-reasons-to-start-a-for-profit-social-enterprise?autocomplete=true

Love, H. (2016). *The start-up J Curve*. Austin, Texas: Greenleaf Book Press

Martin, R. L. & Martin, R. L. (2015, October). How social interpreters make change happen. *Harvard Business Review.* Available at https://hbr.org/2015/10/how-social-entrepreneurs-make-change-happen?autocomplete=true

Maurya, A. (2016). *Scaling lean*. New York: Portfolio/Penguin.

McCambridge, R. (2017a, August 3). Public favors nonprofit over for-profit social enterprise. *NPQ.* Available at https://nonprofitquarterly.org/2017/08/03/public-favors-nonprofit-profit-social-enterprise/

McCambridge, R. (2017b, December 3). What does "*Strategic Philanthropy*" mean to a hedge fund manager? *NPQ*. Available at https://nonprofitquarterly.org/2017/12/04/strategic-philanthropy-mean-hedge-fund-manager/

McGrath, R. & MacMillan, I. (1995, July-August). Discovery-driven planning. *Harvard Business Review*. Available at https://hbr.org/1995/07/discovery-driven-planning?autocomplete=true

Milway, K. S. (2014, May). How social entrepreneurs can have the most impact. *Harvard Business Review*. Available at https://hbr.org/2014/05/how-social-entrepreneurs-can-have-the-most-impact?autocomplete=true

Osberg, S. R. & Martin, R. L. (2015, May). Two keys to Sustainable Social Enterprise. *Harvard Business Review.* Available at https://hbr.org/2015/05/two-keys-to-sustainable-social-enterprise

Rawson, L. (2016). *The minority and women-oriented small business guide to government contracts: everything you need to know to get started*. Morgan, UT: Dana Grace Enterprises.

Rose, D. S. (2016). *Startup checklist*. Hoboken, New Jersey: Wiley.

Social Enterprise (n.d.). Social enterprise. *Business Dictionary.com.* Available at
http://www.businessdictionary.com/definition/social-enterprise.html

The Editors (2018, Feb 1). The financial risks of us nonprofits and how to manage them. *NPQ.* Available at
https://nonprofitquarterly.org/2018/02/02/financial-risks-us-nonprofits-manage/

Thompson, J. D. & MacMillan, I. (2010, September). Making social ventures work. *Harvard Business Review*. Available at
https://hbr.org/2010/09/making-social-ventures-work?autocomplete=true

Tkacz, M. (2016). New generation of social entrepreneurs: exploratory research and cross case study analysis of new generation of social enterprises, *Ekonomia Spoleczna*, (2) 20-37.

Weerawardena, J, McDonald, R. E. & Mort, G.S. (2010). Sustainability of nonprofit organizations: An empirical investigation. *Journal of World Business*, 45: 346-356.

What are B Corps (n.d.). What are B Corps? *Bcorporation.net.* Available at
https://www.bcorporation.net/what-are-b-corps

Exploring the factors of startup success and growth

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Keywords
Innovation, Startup, Internal Market Openness, Internal Market Dynamics, Government Policies, Econometrics.

Abstract
Most developing economies relies heavily on startups, startups has been identified to be the measure of innovation and development and countries that has more startups have higher economic stability. The aim of this paper is to identify factors that influence the success of startup in this ever changing world. Factors such as turnover, internal Market openness, Market dynamic and Government policies turns to influence capital investors decision and affect the confidence of the entrepreneur.

Introduction

Entrepreneurship, innovation, and creativity have been the epitome of modern industrialization. World economies are experiencing a massive boost because people are fast adapting to the concept of entrepreneurship and innovation. This in turn puts less pressure on the government in the job creation sector of the economy. In 1949 Economist Joseph Schumpeter's theory of entrepreneurship focused on three main characteristics of the entrepreneur. These are Innovation, Foresight and Creativity

A better understanding of the factors that contribute to startup failure represents a critical aspect of entrepreneurship studies. the startup literature has spent disproportionately more attention on success stories and factors rather than on new business failures (Deakins, 1996). From the GEM (2017) report, sixty-two (62) economies around the world were surveyed, more than sixty-seven percent (67%) of the adult population believe that entrepreneurs are well-respected and enjoy high status within their societies. This percentage encourages young and upcomings desire in entrepreneurship, which is positive to the future of their economies.

Moderate average scores for media visibility. Around 60% of adults, in all three economic development groups, believe that entrepreneurs garner substantial media attention. On average, sixty-seven (67%) of the adult population in the efficiency-driven economies consider starting a business a good career choice, compared to around 60% in the factor - and innovation-driven economies. Africa is the region reporting the most positive attitudes towards entrepreneurship, with three quarters of working-age adults considering entrepreneurship a good career choice while 77% believe that entrepreneurs are admired in their societies. In contrast, Latin America and the Caribbean reports the lowest proportion of adults believing that entrepreneurs are highly regarded(63%) while Europe has the lowest belief in entrepreneurship as a good career (58%) and the lowest media publicity for this activity (55%).

Two factors of success of every startup is it consistency with innovation and continuous flow of funds. But there are a number of factors which affect these two factors, mostly financing due to the high level of risk involved in startups, looking at the statistics, it makes it much more difficult for any investor to trust in any startup. So the focus of this research is to find out factors that influences innovation and makes startup attractive for financing. Many great companies have exited the market because of lack of innovation and foresight of it leaders, there are a number of factors that influences the decision of corporate and startup leaders in their choice to be innovative or not. There has been a lot of research which identified financing of startup as the main hindrance to innovation in startup. There is a strong relationship between financing and innovation.

Financial and innovation

Innovation is a strong pillar to the success of every startup known in the world, Business that are not able to invest in research and development dies in the striving market. the capital cycle has become the main feature of the innovative market, as indicated by (Gompers and Lerner 2004), (Kaplan and Schoar, 2005), (Gompers, Kovner, Lerner and Scharfstein 2008). (Rhodes-Kropf, M. 2015) indicated that the market plays a vital role in the financing and financing also has a strong linkage with innovation. Financing hinders innovation in small scale enterprises in Europe (Ghisetti Et al, 2017). (Nanda, R., Rhodes-Kropf, M. 2017) and (Ou, C. 2011) indicated that strong financial support for startups can trade off high-level risks. Many business failures are mostly attributed to lack of financing, internal market dynamics and lack of innovations. there is a concern over declining innovation in small and medium-sized enterprises, most particularly in the case of family businesses(Schäfer, D., Stephan, A., Mosquera, J.S. 2017). the research indicated the inefficient realization of innovative practice by families businesses due to funding in R&D. which means that if enough financing allocated to such business it will increase their survival and innovativeness. The gap between innovation and financing seems too difficult to close as noted by (Czarnitzki and Hottenrott, 2011; Mohnen et al. 2008; Canepa and Stoneman 2008; Freel 2007). Source of funding of innovative activity becomes the other of the day since there would not be innovation without research.

From the literature, we come up with these set of Hypothesis.

H1: Innovation is influenced to a certain level by Internal market Openness:

A theoretical model describing the dependence of innovation activity of enterprises on the degree of competition in the market can also be found in Aghion, Bloom, Blundell, Griffith and Howitt, 2002. (Berger, 2010) in his work he established an empirically positive relationship between competition in the market and innovation. Significant is also the effect of economies of scale and greater ability to raise funds for innovative research. openness bring competition and ensures the quality of product and services,

H1: Turnover influence the decision of a corporation to be innovative.

Innovation has a major effect on the turnover and general growth of companies (Capasso, M., Treibich, T., Verspagen, B. 2015). We want to find out if turnover also influences the decision of corporation to invest much in R&D.

Financing and startups

Financing of startups is the most changing thing for entrepreneurs. most investors are afraid of the high risk involved in investing in startups and companies that do not have sustainable returns. This is due to the credit crisis of 2008 and 2009 which has made it more difficult for entrepreneurs to secure financing as banks have become risk-averse in lending money to new startups (Nutting, 2009). with the reduced access to financing from banks, it has increased drastically the competition for venture capitalist funding. Recently governments in most developing countries are trying to finance startups in other to create employment for its citizenry, but that also has a high competition in securing funds.As indicated by (Dilger, R.J., Gonzales, O.R. 2011) the USA H.R. 5297, the Small Business Lending Fund Act of 2010, which would authorize the Secretary of the Treasury to create a $30 billion Small Business Lending Fund to encourage community banks to provide small business loans, a $2 billion State Small Business Credit Initiative to provide funding to participating states with small business capital access programs, and a $1 billion Small Business Early-Stage Investment Program to provide venture capital funding for startup companies. This is to ensure job creation and

employment in the country, but this type of financing can not be accessed by all, so the focus of this research is to find out the factors that influence startup financing.
Based on this, we formulated this hypothesis.

H3: Government policies places a high constraint on the financing decision of investors.
some policies of the government either make investing in startups attractive or not attractive. some policies scare investors off certain locations, due to unattractive of government policies.

Data structure

The data is a panel data consisting of developed countries and this selection was done assessing the GDP of the various countries. The 13 countries are include: Belgium, Canada, France, Germany, Italy, Japan, Netherlands, United kingdom, United States, Switzerland, Sweden, Russia, and China. The years selected for the analysis were selected because of the availability of data; data was selected from the year 2006-2015. Missing data are replaced with the mean.The GDP per capita is not presented in percentage but in raw figures to know the actual value in dollars.

The data below describes the factors considered in the data structure and what each factor represent. The GDP per capita is not presented in percentage but in raw figures to know the actual value in dollars.

Factors	Representation
Turnover	Measures the percentage of Return on Investment over the course of the year
Financing	The availability of financial resources as equity and debt for small and medium enterprises (SMEs) (including grants and subsidies)
governmental_support_and_policies	The extent to which public policies support entrepreneurship - entrepreneurship as a relevant economic issue
taxes	The extent to which public policies support entrepreneurship - taxes or regulations are either size-neutral or encourage new and SMEs
Basic_education	The extent to which training in creating or managing SMEs is incorporated within the education and training system at primary and secondary levels
post_education	The extent to which training in creating or managing SMEs is incorporated within the education and training system in higher education such as vocational, college, business schools, etc.
r&d	The extent to which national research and development will lead to new commercial opportunities and is available to SMEs
internal_market_dynamics	The level of change in markets from year to year
internal_market_openness	The extent to which new firms are free to enter existing markets
cultural_and_social_norms	The extent to which social and cultural norms

	encourage or allow actions leading to new business methods or activities that can potentially increase personal wealth and income
GDP_per_capital	GDP per person in the economy
Employment	This discuss the percentage of people who are employed out of the total population from various countries.

Correlation Coefficient

	1	2	3	4	5	6	7	8	9	10	11	12
1	1.00											
2	0.12	1.00										
3	0.07	0.60	1.00									
4	0.01	0.50	0.63	1.00								
5	-0.03	0.43	0.25	0.59	1.00							
6	-0.02	0.56	0.50	0.55	0.48	1.00						
7	0.01	0.67	0.59	0.63	0.42	0.61	1.00					
8	0.10	-0.42	-0.21	-0.38	-0.38	-0.52	-0.42	1.00				
9	-0.03	0.60	0.43	0.53	0.71	0.43	0.60	-0.44	1.00			
10	-0.06	0.32	0.12	0.42	0.58	0.31	0.24	-0.12	0.39	1.00		
11	0.11	0.44	0.28	0.51	0.49	0.39	0.52	-0.29	0.43	0.58	1.00	
12	0.10	0.31	0.34	0.64	0.48	0.22	0.39	-0.14	0.40	0.58	0.57	1.00

Data analysis structure

First created a simple linear regression using the lm command of the R-Studio, Setting R&D as the dependent variable for the first model, I then checked for heteroskedasticity using the plot command and two other mathematical models, namely the Breusch Pagan Test and the NCV Test. All the test showed the presence of heteroskedasticity. The Box-Cox Transformation for correcting heteroskedasticity. We primarily focus on the dependent variable , after the transformation, it was tested again for heteroskedasticity.

After eliminating heteroskedastic from the data, the data was then analysed using the Fixed effect model with dummies of Years and country and the second model was with dummies,

Innovation

Log r.d	Oneway (individual) effect Random Effect Model With dummies of Year and Country	Oneway (individual) effect Random Effect Model Without Dummies
Turnover	-4.1264e-03.	-4.9285e-04

	2.4105e-03	1.2053e-03
Government Policies	.0245e-01*** 2.8435e-02	9.6744e-02** 2.8527e-02
xinternal_market_openness	1.5338e-01*** 3.5389e-02	1.5633e-01*** 3.4642e-02
Employment	3.3923e-03 6.3146e-03	2.4362e-03 4.9234e-03
Cultural and social Norms	-1.0568e-02 2.6148e-02	-1.9972e-02 2.5559e-02
xtaxes	4.0454e-02 3.0548e-02	5.6835e-02* 2.7605e-02
xGDP_per_capital	-3.1232e-06 5.9685e-06	-9.4631e-07 1.9265e-06
xinternal_market_dynamics	1.7991e-02 7.3356e-02	1.9939e-02 7.2424e-02
R^2	0.56729	0.48925
F statistics	6.32382 on 17 and 82 DF, p-value: 3.6795e-09	10.8962 on 8 and 91 DF, p-value: 1.184e-10

The first hypothesis Innovation is influenced to a certain level by Internal market Openness, this was seen to be positive with the Fixed effect model in table 2. this confirms another finding by (Berger, 2010), which stated that openness of the market create competition which intends makes leaders focus much on innovations. as the market is open, it attracts a lot of participants, which create the atmosphere for innovation and development. when there is no competition, leaders becomes reluctant with the creativity. Like the case of Nokia, because there was a high competition on the smartphone market, those companies that still lived in the past were left behind. Facebook is still Facebook after a decade because they understand the competition and always tries to kill the competition, Facebook buying WhatsApp because they realized people were switching their attention to WhatsApp at the time of purchase. Openness keeps good leaders on their toes, which wakes their innovative instincts. competition is good for every economy.

It was realized that turnover did not have any influence on the innovation of startups.

The analysis shown a strong impact of Governmental policies on innovation, this takes into account the sound economic policies, good trade practices, knowledge sharing and good environment for business

Financing

Log Financing	Oneway (individual) effect Random Effect Model With dummies of Year and Country	Oneway (individual) effect Random Effect Model Without Dummies
Turnover	5.7657e-03* 2.6098e-03	2.5570e-03. 1.3835e-03
Government Policies	1.0836e-01***	1.1611e-01***

	3.0786e-02	3.2745e-02
xinternal_market_openness	8.8976e-02* 3.8315e-02	1.2841e-01** 3.9764e-02
Employment	9.9723e-03 6.8367e-03	1.4194e-02 * 5.6513e-03
Cultural and social Norms	-1.4463e-03 2.8311e-02	1.0912e-02 2.9337e-02
xtaxes	5.0201e-02 3.3074e-02	1.1988e-02 3.1686e-02
xGDP_per_capital	-8.9482e-06 6.4620e-06	-9.9709e-07 2.2114e-06
xinternal_market_dynamics	-1.7017e-01* 7.9421e-02	-1.7854e-01* 8.3131e-02
R^2	0.57577	0.43717
F statistics	6.54653 on 17 and 82 DF, p-value: 1.8182e-09	8.83536 on 8 and 91 DF, p-value: 7.118e-09

Financing has been identified to have a strong correlation with innovation and success in most startups. it has also been identified to be the best mean to the trade of risk is by high initial investment in startups. But there are other unknown factors that influenced the behaviour of of investors.from the results indicated above, it shows that turnover, internal market openness and Government policies are characteristics that investors looks at before committing their monies to any venture. The internal dynamics of the market scares investors off due to the higher risk associated with the market dynamics.

Discussion

Based on our findings, this section discusses the factors which influence startup success. It is divided into two subsections with discussions on the research question.

Turnover

With respect to the financing factor, our analysis revealed that turnover, internal market openness and government policies highly influence the financing of startups. The results confirm the findings of Diamond (2012), Tanrısever et al. (2012) and Cusumano (2012). According to Tanrısever et al. (2012), profit maximization is key to investment decision which in turn influences the survival of startups. Facebook's success hinges upon pressure to innovate and aggressively compete against other technology companies which led to massive turnover that in turn attracted more investors (Diamond, 2012).

A positive turnover has a positive effect on a firm's performance builds its reputation in the marketplace and influences the desire for investors to invest in the said firm. Conversely, Cusumano (2012) reported that, within a week of the social networking giant Facebook's initial public offering (IPO), their stock market value fell by 25% which affected its first earnings, thereby disappointing investors. Thus, low capital turnover influences investor confidence.

Government Policies

The results confirm the findings of Minniti (2008), Cheah et al. (2016), Colwell & Narayanan (2010), Patanakul & Pinto (2014) and Dolfsma & Seo (2013) that government policies have an effect on financing of startups and innovation in startups which lead to growth and success. With respect to financing, policies implemented by governments are capable of fostering or retarding financing and investment opportunities in the business and entrepreneurship ecosystem of a country. Similar to spheres such as agriculture and education where government policies drastically influence the outcome over a period of time, one can infer that government policies are the fuel of an economy. As argued by Minniti (2008), the place of government as a body in regulating rules both formal and informal places constraints on entrepreneurial activities. The author concluded that government policies are powerful influencers of entrepreneurial activity by structurally setting the tone in the business world thereby encouraging certain activities which will favour one group of startups which fall within laid out criteria and disfavour another (leading to loss of investment opportunities).

A classic example of a society where startups flourish is Singapore and the success is attributed to government policies purposefully aimed at innovation-driven economic growth. Cheah et al. (2016) pointed out that the government of Singapore established venture-friendly legislation in areas such as taxation and bankruptcy laws (where the procedure duration drastically was cut down from 29 months to 10 days) to encourage the formation of innovative startups and investment. Thus, government policies are capable of changing the entrepreneurial culture of the country by fostering a climate in which entrepreneurship is viewed by citizens as a means to create value for the economy (Colwell & Narayanan, 2010) and drawing in investment opportunities.

Next, we discuss the influence of government policies and their impact on innovation in startups. Government policy framework, according to study is a progress or hindrance to innovation and the determines the course of the country's development; within which the startup and innovation landscape is constituent. In America, the government launched an initiative - Startup America - aimed at promoting entrepreneurship and accelerating the transfer of research breakthroughs from universities to businesses, improving the regulatory environment for starting and growing new businesses, and increasing connections between entrepreneurs and prolific business mentors (Patanakul & Pinto, 2014). A policy framework of this nature serves as a launching pad for startups and gives rise to sporadic quality innovation due to the fact that government policy has made provision for building an ecosystem that promotes startup growth. A strategic policy by the government of the Netherlands aims at strengthening its position as one of the world's top five most competitive economies by increasing spending on research and development to 2.5% of the gross domestic product (GDP) by 2020. Thus, creating a ripe environment for more startups to spring up with highly innovative products. Government policies such as lower corporation taxes, provision of funding opportunities, tax credits, intellectual property rights as well as antitrust law are examples of policies which exist to protect small players active in the startup market, hence creating a level playing field to encourage healthy competition (Dolfsma & Seo, 2013).

Internal Market Openness

Our analysis revealed that internal market openness is essential to startup financing and innovation, and back the findings of Li et al. (2004) and Zilgalvis (2014). The level of openness of a country's internal market is to external investors and trade opportunities is a gateway to drawing in investment opportunities which will contribute to the economy of the country as well as drive innovativeness and competitiveness. Foreign investments made possible by market capital openness as a result of trade openness boosts innovation by local startups which motivates startups to outperform rivals (Li et al., 2004).

Zilgalvis (2014) described the U.K. withdrawing from the European Union as a move from openness toward isolation which could damage the talent and investment base of the emerging startup ecosystem. The author made reference to the need for more accelerators and incubators in the UK due to the huge operational costs associated with running a startup in London. Thus, the market structure here calls for more investment, yet the changing scene from an open to closed system is potentially threatening to startups gaining financial backing.

The open nature of markets in the United States, Netherlands and Switzerland make them powerhouses for startup innovation.

On the other hand, observing countries such India and China which were closed until the last decade and two decades respectively, levels of innovativeness has skyrocketed and the outcome of startups in these countries are evident all over the world.

Internal Market dynamics

Our analysis revealed a negative significance of market dynamics on financing of startups. A country or region's entrepreneurial landscape is dependent on the systems that form the economy and is filled with uncertainties with various risks associated. Giardino et al. (2014) pointed out that despite the uncertain nature of certain or all aspects of the market, a good entrepreneur is proactive, has foresight and is capable of anticipating unforeseen events. This means, new startups are at risk of failing which poses a threat to financial investment opportunities. Also, the unpredictable nature of the market puts investors in a position whereby financing startups is done in a cautious and rigorous manner so as to avoid risks, and it affects the chances of other equally innovative startups being financed. Hence, the market dynamics of a region highly influence the financing of startups and for that matter, startup growth.

Conclusion

Two factors were considered for the dependent variable Innovation (R&D) and Financing, and factors like Government policies, Internal market openness, internal market dynamic, are considered as independent variables with GDP per capita and employment as controlled variables.

The finding will help policymakers strengthen their policies in the area of trade and investment. Increasing government support for startup and making the trade environment more easy. Government has a major rule to play in ensuring growth in the success of startups.

Future work should focus on assessing closed markets at a regional level to establish the impact of financing, innovation (R&D), government policies, internal market openness, and internal market dynamics on the success of startups.

References

Aghion, P., Bloom, N., Blundell, R., Griffith, R. and Howitt, P., 2005. Competition and innovation: An inverted-U relationship. The Quarterly Journal of Economics, 120(2), pp.701-728.

Berger, L.A. and Berger, D.R., 2010. The talent management handbook: Creating a sustainable competitive advantage by selecting, developing, and promoting the best people. McGraw Hill Professional.

Capasso, M., Treibich, T. and Verspagen, B., 2015. The medium-term effect of R&D on firm growth. Small Business Economics, 45(1), pp.39-62.

Cheah, S., Ho, Y.P. and Lim, P., 2016. Role of public science in fostering the innovation and startup ecosystem in Singapore. Asian Research Policy, 7(1), pp.78-93.

Colwell, K. and Narayanan, V.K., 2010. Foresight in economic development policy: Shaping the institutional context for entrepreneurial innovation. Futures, 42(4), pp.295-303.

Cusumano, M.A., 2012. Reflecting on the Facebook IPO. Communications of the ACM, 55(10), pp.20-23.

Czarnitzki, D. and Hottenrott, H., 2011. R&D investment and financing constraints of small and medium-sized firms. Small Business Economics, 36(1), pp.65-83.

Diamond, S.F., 2012. Facebook's failed IPO and the era of insider capitalism.

Dilger, R.J. and Gonzales, O.R., 2012. Sba small business investment company program. Journal of Current Issues in Finance, Business and Economics, 5(4), p.407.

Dolfsma, W. and Seo, D., 2013. Government policy and technological innovation—a suggested typology. Technovation, 33(6-7), pp.173-179.

Ewens, M. and RHODES-KROPF, M.A.T.T.H.E.W., 2015. Is a VC Partnership Greater than the Sum of its Partners?. The Journal of Finance, 70(3), pp.1081-1113.

Freel, M.S., 2007. Are small innovators credit rationed?. Small Business Economics, 28(1), pp.23-35.

Ghisetti, C. and Quatraro, F., 2017. Green technologies and environmental productivity: a cross-sectoral analysis of direct and indirect effects in Italian regions. Ecological Economics, 132, pp.1-13.

Giardino, C., Wang, X. and Abrahamsson, P., 2014, June. Why early-stage software startups fail: a behavioral framework. In International Conference of Software Business (pp. 27-41). Springer, Cham.

Gompers, P.A. and Lerner, J., 2004. The venture capital cycle. MIT press.

Gompers, P., Kovner, A., Lerner, J. and Scharfstein, D., 2008. Venture capital investment cycles: The impact of public markets. Journal of Financial Economics, 87(1), pp.1-23.

Kaplan, S.N. and Schoar, A., 2005. Private equity performance: Returns, persistence, and capital flows. The Journal of Finance, 60(4), pp.1791-1823.

Li, K., Morck, R., Yang, F. and Yeung, B., 2004. Firm-specific variation and openness in emerging markets. Review of Economics and Statistics, 86(3), pp.658-669.

Minniti, M., 2008. The role of government policy on entrepreneurial activity: productive, unproductive, or destructive?. Entrepreneurship Theory and Practice, 32(5), pp.779-790.

Mohnen, P., Palm, F.C., Van Der Loeff, S.S. and Tiwari, A., 2008. Financial constraints and other obstacles: are they a threat to innovation activity?. De Economist, 156(2), pp.201-214.

Nanda, R. and Rhodes-Kropf, M., 2017. Innovation Policies☆. In Entrepreneurship, Innovation, and Platforms (pp. 37-80). Emerald Publishing Limited.

Ou, C., 2011. Statistical Databases for Research on the Financing of Small and Start-Up Firms in the United States: An Update and Review. In Advances in Entrepreneurial Finance (pp. 219-250). Springer, New York, NY.

Patanakul, P. and Pinto, J.K., 2014. Examining the roles of government policy on innovation. The Journal of High Technology Management Research, 25(2), pp.97-107.

Ram, M. and Deakins, D., 1996. African-Caribbeans in business. Journal of Ethnic and Migration Studies, 22(1), pp.67-84.

Schäfer, D., Stephan, A. and Mosquera, J.S., 2017. Family ownership: does it matter for funding and success of corporate innovations?. Small Business Economics, 48(4), pp.931-951.

Schumpeter, J.A., 1949. Science and ideology. The American Economic Review, 39(2), pp.346-359.

Tanrısever, F., Erzurumlu, S.S. and Joglekar, N., 2012. Production, process investment, and the survival of debt-financed startup firms. Production and Operations Management, 21(4), pp.637-652.

Zilgalvis, P., 2014. The need for an innovation principle in regulatory impact assessment: The case of finance and innovation in Europe. Policy & Internet, 6(4), pp.377-392.

Development of women entrepreneurs in Bangladesh: Opportunities and challenges

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Keywords
Development, Challenge, Women Entrepreneur, Vision, Bangladesh.

Abstract

Women entrepreneurs can play a very significant role for the overall economic development in Bangladesh. Recently, Bangladesh have obtained the lower-middle income country in the world. Now, Bangladesh are trying to obtain the middle –income country status within 2021. In the meantime, the Government of the People's Republic of Bangladesh has taken many initiatives to o0btain the vision 2021. One of the important initiatives has taken by the government of Bangladesh is to create significant number of women entrepreneurs. Thus, this paper attempts to explore the opportunities to develop the women entrepreneurs in Bangladesh. The number of women entrepreneurs is very few in Bangladesh although the government of this country has taken many initiatives for the development of women entrepreneurs. Beside government, individual entrepreneur, different national and international agencies/organizations, NGOs, etc. are trying to create significant women entrepreneurs for the sustainable economic of Bangladesh. Despite their sincere endeavors, the number of women entrepreneurs is not increasing in expected numbers in Bangladesh. Therefore, this paper also attempts to find out the problems of the development of women entrepreneurs in Bangladesh and suggest some measurers to overcome the problems associated with the development of women entrepreneurs in Bangladesh at present.

Internationalizing a financial firm in small developing markets

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Keywords
Internationalization strategy, Dynamic capabilities, Caribbean, Financial firm, Business model, Corporate transformation

Abstract

This study explored how the business model of a Jamaican financial firm evolved for regional expansion in the Caribbean. There is a paucity of research on firm internationalization in small markets. These markets constrain economies of scale and financial institutions often face more regulatory restrictions to foreign market entry than encountered by other firms.

The research methodology involved an in-depth case study of Jamaica Money Market Brokers (JMMB), a family-run financial firm, using qualitative and quantitative data from both primary and secondary sources, covering the period 1992 to 2016. A conceptual framework, derived from literature on the Uppsala model of multinational enterprise evolution and dynamic capabilities, guided the analysis.

JMMB followed the decision path described by the Uppsala model and leveraged its family culture to forge strategic partnerships for penetrating target markets. Dynamic capabilities enabled gradual business model replication overseas, based on psychic distance, and subsequent corporate transformation to diversify the range of services. However, market conditions forced JMMB to trade-off profitability for asset growth.

The findings imply that successful internationalization in small markets involve a differentiation strategy with product innovation to cope with market saturation. The study contributes to the development of internationalization theory by illustrating business model as a unit of analysis in the Uppsala model of MNE evolution.

Authors note
The author conducted this study at the University of the West Indies, Mona as part of the National Commercial Bank Jamaica Limited sponsored applied research programme in corporate renewal and transformation.

1.0 Introduction

Financial firms often pursue opportunities for profitable growth in more than one country (Engwall & Hadjikhani 2014; Grant & Venzin 2009). While several approaches exist for financial firm internationalization, the Uppsala model is a popular choice (Ahmad 2012; Parada, Alemany & Planellas 2009). This model posits that firms begin the internationalization process in nearby foreign markets, in terms of psychic distance, and then gradually enter other markets further away (Johanson & Vahlne, 1977, 2009; Vahlne & Johanson, 2017). During the process, firms learn from exploration and experience and use this knowledge to make decisions about the level of commitment, organizational processes, investment and risk. Multinational Enterprise (MNE) evolution and performance depend on firm resources, capabilities, and networking to build relationships.

According to Rask (2014, p. 147), 'When a firm decides to internationalize its activities, its focus is on business model innovation.' Business model refers to the architecture used by the firm to conceptualize, create, deliver and capture value for organizational stakeholders (Zott & Amit 2013). The MNE needs to design and orchestrate an appropriate business model and embed this intangible asset in routine operations for profitable entry and growth in foreign markets (Teece 2014). Extant literature on the Uppsala model presumes that the size of target foreign markets will accommodate business models based on economies of scale. However, this might not be the reality of the MNE and can be a problem for financial firms because they rely on asset growth in the normal course of business. Moreover, Ellis (2008) reported a negative relationship between market size and entry sequence. This suggests that small markets are less attractive for international expansion by way of the Uppsala model. Therefore, the purpose of this study was to explore how the business model of a financial firm evolves during internationalization in small markets that constrain economies of scale.

The Caribbean provides an interesting context for this study because this region consists of small island developing states weakened by low growth and high public debt (international Monetary Fund 2013). Moreover, the intensity of competition is high because Caribbean financial institutions tend to offer similar and mature services in saturated markets (Ogawa, Park, Singh & Thacker 2013). These factors constrain economies of scale. Yet, Jamaica Money Market Brokers (JMMB) adopted the Uppsala model to transform itself from a private, family-owned brokerage firm, serving only Jamaica, to a publicly traded and diversified financial institution with facilities and operations in three Caribbean countries. Therefore, this case study explored the answer to the following question: How did the business model of JMMB evolve for successful internationalization in Caribbean markets? The answer contributes to international business literature by illustrating a process for regional expansion in small markets.

The next section of this article discusses how business models relate to the Uppsala model and dynamic capabilities to develop a conceptual framework for the case study. Then the methodology for data collection and analysis is described. JMMB's internationalization journey is documented. The article concludes by discussing the new insights, areas for future research, limitations of the study and implications for managerial practice.

2.0 Conceptual Framework

Based on earlier work by Penrose (1959) and Cyert and March (1963), Johanson and Vahlne (1977) proposed a model of internationalization they developed at Uppsala University from studies of Swedish firms. Johanson and Vahlne (2009) further developed the Uppsala model to recognize foreign networks of relationships for building trust and commitment to overcome liabilities of newness, foreignness and outsidership. Firms are often involved in a set of close and enduring relationships with critical suppliers and customers. These relationships arise from social exchange processes that build trust then reciprocal commitment between the firm and connected parties. Firms need effective participation in one or more networks of relationships for success. These networks can create new knowledge through exchanges in critical areas, such as resources and capabilities. The MNE can more easily build the relationships necessary for spotting and exploiting opportunities when there is minimal perceived difference in conditions, called psychic distance, between home and foreign country.

Some scholars challenged the prescriptions of the Uppsala model. Forgren and Hagstrom (2007) argued that the notion that firms begin internationalization in nearby markets overlooks e-Commerce that makes business transactions less constrained by time or geographic location. Furthermore, Oviatt and McDougall (1994) and other researchers posit an alternative to the Uppsala model, called "born global," to describe some entrepreneurial firms that begin internationalization very soon after their establishment rather than incrementally. Yet, Outreville (2013) observed that financial groups from emerging economies preferred to internationalize incrementally in their respective home regions. Ahmad (2012) attributed this behaviour to the perception of lower risk due to market familiarity. Parada, Alemany and Planellas (2009) noted that Banco Santander developed and mastered a business model to build a strong lead position in its home market and then took this architecture successfully to foreign countries. However, the literature does not address the issue of how to internationalize in small markets.

Vahlne and Ivarsson (2014) noted that MNEs develop dynamic capabilities for competing in varying institutional contexts of the global arena. Dynamic capability refers to the capacity for purposeful and agile bundling of resources and this enables the firm to create adjust, and replace business models (Teece 2014). The roots of scholarly research on dynamic capabilities reside in the resource-based view that firms achieve competitive advantage and growth by combining resources in ways superior to rivals in the marketplace (Penrose, 1959). Resources refer to tangible or intangible assets used to perform activities and are strengths or weaknesses relative to competitors (Wernerfelt 1984). Barney (1991) attributed sustainable competitive advantage to resources that are valuable, rare, inimitable and non-substitutable (called VRIN resources). Grant (1991) argued that distinctive resources and capabilities enable the firm to establish its identity and mission formulate strategy and earn corporate profits in excess of the cost of capital.

Dynamic capability determines the organization's capacity for strategic change to adapt to the environment (Winter 2003). Helfat and Peteraf (2015) assert that these capabilities involve the capacity to perform not only physical but also mental activities. Dynamic capabilities reside largely in the domain of top management although impacted by organizational systems and structures (Teece 2014). Dynamic capabilities are leveraged through three sets of organizational processes or activities:

sensing opportunities and threats through market probing, listening to customers and scanning elements of the ecosystem

seizing opportunities by securing and orchestrating the necessary assets, motivating employees by way of incentives and building strong relationships with critical constituents

transforming capabilities to maintain competitiveness by enhancing, combining, protecting and reconfiguring tangible and intangible assets

Importantly, dynamic capabilities do not lead automatically to superior firm performance. They need proper deployment for best results. Successful transformation becomes evident when the organization embeds behavioural change for long-term financial success (Blumenthal and Haspeslagh 1994).

Figure 1 combines the main elements of the Uppsala model with the concepts of business model and dynamic capabilities to show the firm internationalization process as four sequential and overlapping phases. The firm builds VRIN assets and capabilities for cost leadership or product differentiation in its home market, explores nearby markets overseas for opportunities to leverage these assets and capabilities, uses networks of relationships to enter foreign markets, and eventually reconfigures the assets and capabilities to pursue new opportunities.

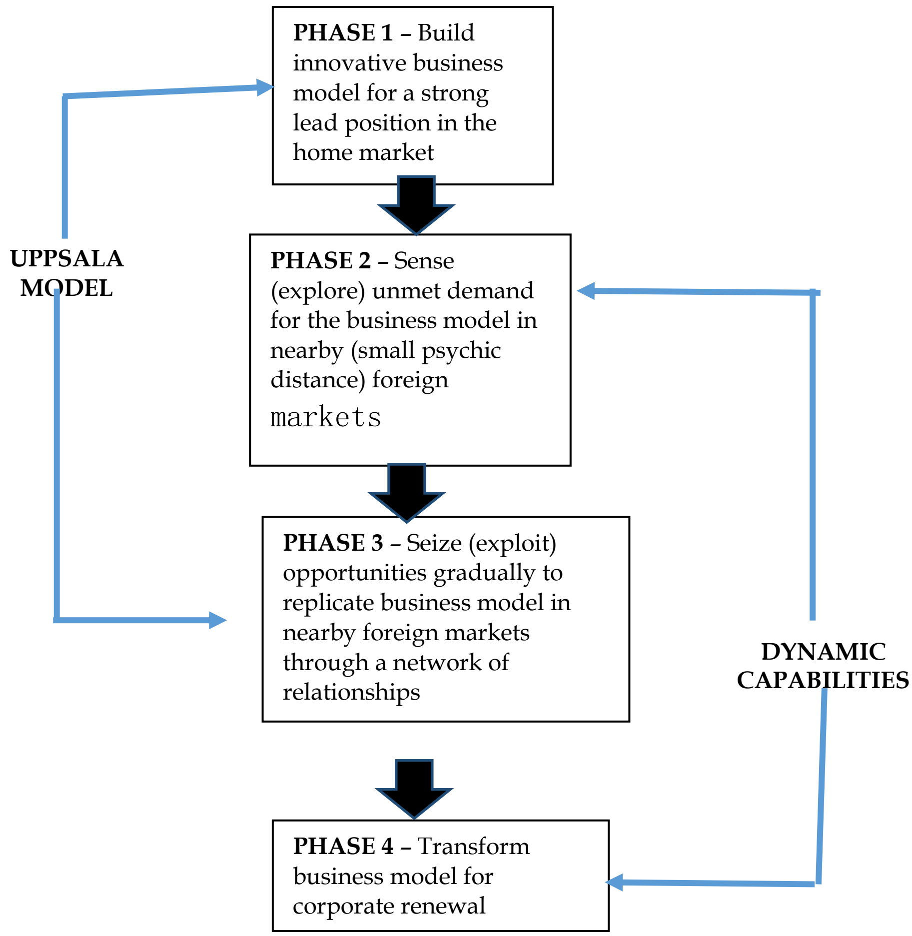

Figure 1. Four sequential and overlapping phases for financial firm internationalisation

During Phase 1, the firm builds superior assets and competences in its home market. Phase 2 involves probing the ecosystem to detect latent demand, for existing resources and competences, in foreign markets that have short psychic distance or cultural conditions similar to those of the home market. Managers should discern potential opportunities, risk exposures and regulatory conditions by searching for evidence and testing assumptions under different scenarios of market, profit potential and competitor responses. Phase 3 involves developing a business model by configuring the firm for around the fundamental areas for competitive advantage (Rask 2014). During Phase 4, managers learn from research and experience to generate new knowledge for business model innovation and redeployment to strengthen competitive advantage and seizes new opportunities (Teece 2014). Aspara, Lamberg, Laukia and Tikkanen (2011, p. 622) asserted, 'The difference between success and failure of transformative activities boils down to the firm's ability to change its business model effectively and in rhythm with the dynamics of the external business environment.' The main concepts in Phase 4 include organizational learning and business renewal.

Risks are embedded in all decisions made for firm internationalization (Vahlne & Johanson 2013, p. 199). Risk refers to the likelihood that an outcome can vary from expectation and may present an opportunity or a hazard (Bromiley, McShane, Nair & Rustambekov 2015). Financial firms need to manage strategic and financial risks during the process of internationalization (Grant & Venzin, 2009).

3.0 Methodology

3.1 Research Setting

The research setting is the Caribbean comprised of the islands and surrounding coasts of the Caribbean Sea (Caribbean Centre for Money and Finance 2013). Economic growth in the region remained anaemic with high levels of poverty and underemployment (International Monetary Fund 2013). Jamaica's public debt became the highest in the region, following liberalisation of trade and foreign exchange controls in 1991, rising to over 130% of GDP by 2011 compared with the regional average of 79%. The financial sector is large relative to the size of Caribbean economies in terms of GDP (Ogawa *et al*. 2013). Banks represent the largest category of assets with consumer transactions their main business (Holden & Howell 2009).

The rest of the Caribbean financial services sector is comprised of insurance companies, credit unions, securities dealers, microfinance firms, cambios, and building societies (Holden & Howell, 2009). Securities dealers buy and sell securities, such as stocks and bonds, for fees and hold securities for resale. They offer a distribution channel for new issues and those resold on the secondary market. JMMB is the largest securities dealer in the Caribbean and listed among the top eight regional financial institutions (Ogawa *et al*. 2013).

3.2 Research Design

Similar to Parada et al. (2009), this study uses a single case study to explore the Uppsala process of internationalization at a financial firm. This qualitative method can provide a holistic account of the nuances of specific phenomena to uncover organizational concepts and dynamics hidden from other forms of empirical inquiry (Cresswell 2008, p.476). While the case method is susceptible to researcher bias and the findings are not generalizable to the population of interest, this approach is particularly useful for understanding the way a decision-making process unfolds (Eisenhardt 1989). The intention of this single case design is not to generalize findings to the population but instead illustrate a decision pathway and mechanisms.

3.3 Data Collection and Analysis

The conceptual themes in Figure 1 formed the basis of data collection over a period of four months to track JMMB's business model evolution and performance during internationalization. The method of data collection is similar to the approach taken by Ahmad (2012) and Parada *et al*. (2009). Table 1 summarizes the data types, sources, collection methods, documents and information retrieved for this study. JMMB's business model was the unit of analysis. The study made observations of JMMB's regional expansion in accordance with the phases shown in Figure 1. Phase 1 (1992 to 1999) focused on how JMMB created capability to retail debt securities on the secondary market in Jamaica. Phase 2 (1998 to 2003) identified how the firm sensed opportunity to replicate its business model in other Caribbean countries. Phase 3 (1999 to 2007) looked at how JMMB extended its business model from Jamaica to seize opportunities in Trinidad and Tobago and, subsequently, the Dominican Republic. Phase 4 (2004 to 2014) noted how JMMB transformed its business model to enter the banking segment of the market. The measures of financial success of the internationalization process were growth of total assets, an indicator used to rank financial institutions, and return on equity (ROE) which is an indicator relevant for company shareholders.

Data types	Sources	Collection methods	Documents	Data extracted for content analysis
Primary	Two JMMB Board directors	Face-to-face interviews	Two transcripts	Insights on corporate governance and risk management
Primary	Two JMMB senior managers	Face-to-face interviews	Two transcripts	Insights on managerial cognitions, decisions, strategy and operations
Secondary	JMMB's website	Collected at source	12 Annual Reports	Financial data and commentaries from the Board and Management
Secondary	Jamaica Stock Exchange yearbooks and website	Retrieved from website	14 public releases and one prospectus for initial public offering	Stock market data; financial reports, and company releases to shareholders
Secondary	Bank of Jamaica economic and social statistics	Publications in the University's library	Annual social and economic surveys and statistical digests	Economic on and social data on GDP, exchange rates, interest rates and financial sector profile and performance
Secondary	Newspapers (Gleaner, Observer, Guardian)	Collected from archive	67 Articles	Public commentaries on JMMB's decisions, events and performance
Secondary	Google Scholar (Internet)	Retrieved from website	4 Articles	Published research articles on JMMB's performance
Secondary	ABI/Inform (from the UWI electronic library)	Retrieved from website	2 articles	Published research articles on company structure and operations

Table 1. Data collection for content analysis of JMMB's internationalisation process

4.0 JMMB's Internationalization Journey

The JMMB Group began operations, in 1992, as the first licensed money market broker in Jamaica. By 2006, the company was the Caribbean's largest investment brokerage firm with diversified operations in Jamaica, Trinidad and Tobago and the Dominican Republic. JMMB's stock traded on exchanges in Jamaica, Trinidad and Tobago, and Barbados and ranks among the top eight regional financial institutions (Ogawa *et al*. (2013). JMMB's total assets increased from US$0.2 billion in 1998, before internationalization, to US$2.1 billion by 2015 with the number of clients growing from under 40,000 to over 200,000 (Figure 2). However, return on equity declined from over 50% in 2003 to less than 15% in 2015 because of declining interest rate spreads in Jamaica and maturation of financial products in Caribbean markets.

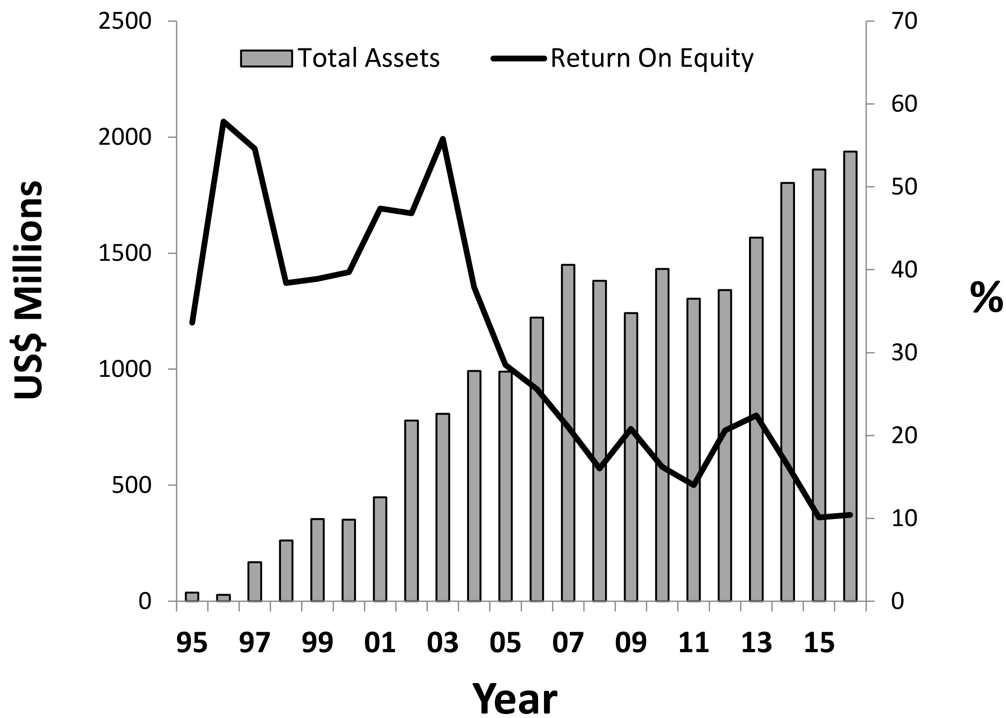

Figure 2. Financial performance of JMMB during internationalization

4.1 Phase 1 - Building Competitive Advantage at Home (1992 – 1999)

JMMB began in 1992 as a joint venture entity with financing from four Jamaican financial firms. The founder leveraged her banking experience to make JMMB the first retailer of Government debt securities on the secondary market, using repurchase agreements with clients. This money market trader had a small staff of mainly family members. By 1994, the workforce grew to 30 employees operating in 1,600 square feet of office space in the capital city, Kingston. JMMB became proficient at managing the spread between long-term and short-term interest rates. The institution also earned fees by placing the idle cash balances of companies in government secured promissory notes. Clients earned returns above bank rates and could use their investments as collateral for loans from JMMB. The other financial institutions were unwilling to take the higher risk associated with small investors on a secondary market, especially in the aftermath of the local financial crisis of the mid-1990s. JMMB established an effective risk management system. According to JMMB's risk manager:

Our [risk management] practice far exceeds the requirements of regulators … The mission of our risk team is not risk elimination but risk management. We ensure that we understand our risks and have sufficient capital to support our business activities.

The owner/managers infused their family values, called the vision of love, in the organization by providing a home-like office climate with genuine and personalized care for stakeholders. Management held frequent meetings with clients and employees to obtain feedback on how to improve customer service and risk management practices. Employees benefited from attractive compensation, performance incentives, day-care facilities for their children, subsidized meals, and a fitness gymnasium.

4.2 Phase 2 - Sensing Threats and Opportunities (1998-2003)

By the late 1990s, there was a crisis in financial sector due to liquidity problems. The Government of Jamaica intervened to restore stability and tighten financial regulations. The spread on interest rates declined and JMMB searched for opportunities to provide other services in Jamaica and replicate its business model elsewhere in the Caribbean. JMMB expanded its range of loan products to clients using their investments as collateral and developed a strategic plan for growth and country risk mitigation. JMMB listed on the Jamaican Stock Exchange in 2002 to obtain capital for regional expansion. This initial public offer (IPO) was oversubscribed. JMMB's 70,000 clients took a substantial amount of the shares on offer. The corporate governance practices were strengthened for the increased public scrutiny and information disclosure. JMMB changed its corporate slogan from "Nobody knows the money market better than we do. Full Stop." to "Your Goals. Full stop." JMMB's IPO prospectus stated in 2002:

We intend to fulfil our mission of being an international institution by continuing local and regional expansion in the short term and going truly international in the long term.

The criteria for foreign market selection included unmet customer demand, regulatory regimes, and cultural similarities. The psychic distance between Jamaica and Trinidad and Tobago was short because both countries are English-speaking members of the Caribbean Common Market (CARICOM) with similar political and regulatory regimes. Furthermore, Trinidad & Tobago had a strong oil-based economy and an underserved capital market (Ogawa *et al.* 2013).

4.3 Phase 3 - Seizing Opportunities for International Expansion (1999-2007)

JMMB extended its business model overseas by entering a joint venture agreement with two reputable local firms, CL Financial (10% ownership) and its subsidiary CLICO Investment Bank (45% ownership) to form Caribbean Money Market brokers (CMMB) in Trinidad and Tobago. CMMB traded fixed income securities including government treasury bills, bonds and commercial paper on the secondary market in the two major cities, Port-of-Spain and San Fernando. JMMB provided management oversight of CMMB's operations of CCMB with mostly local employees, including the Chief Executive Officer. In mid-2004, CMMB opened an associate company in Barbados aimed at taking at least 10% of the island's fixed income market. This full service brokerage house also offered stocks and money markets funds. JMMB owned 50% of CMMB Barbados with 10% owned outright and 40% through its joint venture partner Caribbean Money Market Brokers (Trinidad). CMMB Barbados had six employees and the company operated from rented space in Bridgetown, the capital city, with a capitalization of US$5 million.

In 2006, JMMB started operations in the Dominican Republic, a Spanish-speaking country in close geographic proximity to Jamaica. The company launched its subsidiary JMMB BDI America at a cost of US$5 million, in equity partnership with Banco BDI and Corporacion de Credito America (CCA), to retail Government repurchase agreements. A senior JMMB executive commented:

JMMB was attracted to the Dominican Republic because this market is larger than the combined markets of the CARICOM [Caribbean Common Market] states and the services that JMMB have pioneered in Jamaica could be appreciated by potential clients in this market.

However, in 2007, JMMB sold its shares in CMMB to its partner and withdrew from Barbados. Shortly after, JMMB also sold its 45% stake in CMMB (in Trinidad) to CL Financial. This decision arose from unforeseen differences in risk appetite and management styles between JMMB and CL Financial.

4.4 JMMB Transforming Capabilities for Corporate Renewal (2004-2014)

According to Vahlne and Johanson (2013, p. 199): 'While exchanging products, services and knowledge in the network relationships, new opportunities emerge.' JMMB became adept at managing the spread between savings and loans based on lending practices in Jamaica. This added capability created the opportunity for the company to enter the banking industry. In 2004, JMMB purchased 50% equity stake in Intercommercial Bank (IBL), a small commercial and merchant bank in Trinidad with two branches. In the 2006 annual report, JMMB's Board Chairman declared:

Diversification spreads our risk, enhances our understanding of financial markets elsewhere, strengthens our management capabilities and has added to our profitability.

In 2009, JMMB acquired 80% ownership of CCA. JMMB Investments Trinidad and Tobago opened in late 2012. By June 2012, the company also acquired the Capital and Credit Financial Group in Jamaica to offer merchant banking, remittance and unit trust products. JMMB gradually reduced its reliance on repurchase agreements and increased its loan portfolio, traded equities, and offered insurance brokerage services. In 2013, the company acquired the remaining stake in IBL to assume 100% ownership and further pursue its goal of being a fully integrated regional financial services company with securities dealing, stock brokering, foreign exchange trading, banking and insurance brokerage. In 2014, JMMB acquired 90% ownership of Banco Rio de Ahorro y Credita with plans to merge this entity with CCA to offer a broad range of savings and loan products. JMMB also acquired a Trinidad-based firm, AIC Securities. Management transferred the shares of all JMMB subsidiaries to a newly formed holding company JMMB Group.

5.0 Conclusion

JMMB's process of internationalization was consistent with the stipulations of the Uppsala model and dynamic capabilities theory as shown in Figure 1. During Phase 1, the institution used product innovation to satisfy unmet demand, from small investors, for higher interest rates. In Phase 2, declining spreads on local interest rates triggered JMMB's active search to replicate the business model overseas. During Phase 3, JMMB accepted a minority stake in its first overseas venture to overcome liabilities, of newness, foreignness, and outsidership. During Phase 4, JMMB displayed dynamic capabilities to transform its business model by entering the banking segment of the financial services industry. JMMB had to trade-off return on equity for asset growth and focused on economies of scope, by offering various financial services, rather than economies of scale.

Contrary to literature that family firms tend to avoid external ownership to stay independent (Kraus, Fink and Harms 2011), JMMB leveraged the Jamaica Stock Exchange to obtain equity financing for regional expansion. The presence of non-family members on the Board and in management provided knowledge, competencies, and network contacts. However, JMMB family members retained majority stake in the parent company and occupied senior positions in management including the post of Group Chief Executive Officer. Family control was a critical component of JMMB's enterprise risk management to propagate its vision of love during the process of internationalization.

A limitation of the study is the single case examined. This constrains the extent to which the observations are generalizable to all financial firms. The impact of country-of-origin on the relationship between internationalisation and performance is an area for study (Elango & Sethi 2007). Teece (2014, p. 24) noted that "regional and national systems of innovation. For instance, shape firm experiences, knowledge, and capabilities." The role of family as a concept also needs further investigation.

The findings imply that successful internationalization in small markets involve a differentiation strategy with product innovation to cope with market saturation. Although JMMB had asset growth during regional expansion, its return on equity declined (Figure 2). This may be due to product maturation of securities brokerage and banking. The study contributes to the development of internationalization theory by illustrating business model as a unit of analysis in the Uppsala model of MNE evolution.

6.0 References

Ahmad, SZ 2012, 'The internationalization of Malaysian-based multinational banks.Journey towards globalization', *Asia Pacific Journal of Business*, vol. 4, no. 1, pp. 58-81.

Aspara J, Lamberg J, Laukia, A & Tikkanen, H 2011, 'Strategic management of business model transformation: Lessons from Nokia', *Management Decision,* vol. 49, no. 4, pp. 622-647.

Barney, J. 1991, 'Firm resources and sustained competitive advantage', *Journal of Management*, vol. 17, no. 1, pp. 99-120.

Blumenthal, B & Haspeslagh, P 1994, 'Toward a definition of corporate transformation',*Sloan Management Review*, vol. 35, no. 3, pp. 101-106.

Bromiley, P, McShane, M, Nair, A & Rustambekov, E 2015, 'Enterprise risk management: Review, critique, and research directions', *Long Range Planning*, vol. 48, no. 4, pp. 265-276.

Caribbean Centre for Money and Finance 2013, Caribbean Economic Performance Report, The University of the West Indies, St. Augustine, Trinidad & Tobago.

Creswell, JW 2008, *Educational Research, third ed. Pearson Education Inc.*, Upper Saddle River, New Jersey.

Cyert, R.M. and March, J.G. (1963). *A Behavioral Theory of the Firm*, Prentice-Hall, Englewood Cliffs, NJ.

Eisenhardt, KM 1989, 'Building theories from case study research', *Academy of Management Review,* vol. 14, no. 4, pp. 532-550.

Elango, B & Sethi, SP 2007, 'An exploration of the relationship between the country of origin and the internationalization-performance paradigm', *Management International Review*, vol. 47, no. 3, pp. 369-392.

Ellis, PD 2008, 'Does psychic distance moderate the market size entry sequence relationship?' *Journal of International Business Studies*, vol. 31, no 3, 351-369.

Engwall, L & Hadjikhani, A 2014, 'Internationalization of financial services in turbulent Markets', *International Business Review*, vol. 23, no. 6, pp. 1035-1039.

Forsgren, M & Hagstrom, P 2007, "Ignorant and impatient internationalization?: The Uppsala model and internationalization patterns for Internet-related firms", *Critical Perspectives on International Business,* vol. 3, no. 4, pp. 291-305.

Grant, RM 1991, 'The resource-based theory of competitive advantage: Implications for strategy formulation', *California Management Review*, Spring, pp. 114-135.

Grant, RM & Venzin, M 2009, 'Strategic and organisational challenges of internationalization in financial services', *Long Range Planning*, vol. 42, pp. 561-587.

Helfat, CE & Peteraf, MA 2015, 'Managerial cognitive capabilities and the microfoundations of dynamic capabilities', *Strategic Management Journal*, vol. 36, no. 6, pp. 831-850.

Holden, P & Howell, H 2009, 'Enhancing access to finance in the Caribbean', Private Sector Development Discussion Paper #4. Inter-American Development Bank. October.

International Monetary Fund 2013, 'Caribbean Small States: Challenges of High Debt and Low Growth', Prepared by the Western Hemisphere Department. February 20.

Johanson, J & Vahlne, J 2009, 'The Uppsala internationalization process model revisited:From liability of foreignness to liability of outsidership', *Journal of International Business Studies*, vol. 40, pp. 1411-1431.

Johanson, J & Vahlne, J 1977, 'The internationalization process of the firm: A model of knowledge development and increasing foreign market commitments', *Journal of International Business Studies*, vol. 8, no. 1, pp. 23-32.

Kraus, S Fink, M & Harms, R 2011, 'Family firm research: Sketching a research field' *International Journal of Entrepreneurship & Innovation Management*, vol. 13, no. 1, 32–47.

Ogawa, S Park, J Singh, D & Thacker, N. 2013. Financial interconnectedness and financial sector reforms in the Caribbean. IMF Working Paper. International Monetary Fund. WP/13/175. July.

Outreville, JF 2013, 'A commentary on home-region internationalization in financial groups from emerging economies', *Multinational Business Review,* vol. 21, no. 2, pp. 195-207.

Oviatt, BM & McDougall, PP 1994, 'Toward a theory of international new Ventures', *Journal of International Business Studies*, vol. 25 no. 1, pp. 45-64.

Parada, P Alemany, L & Planellas, M 2009, 'The internationalization of retail banking: Banco Santander's Journey towards globalization', *Long Range Planning*, vol. 42, pp. 654-677.

Penrose, ET 1959, *The Theory of the Growth of the Firm*, Basil Blackwell: Oxford.

Rask, M 2014, 'Internationalization through business model innovation: In search of relevant design dimensions and elements', *Journal of International Entrepreneurship*, vol. 12, 146-161.

Teece, D J 2014, 'A dynamic capabilities-based entrepreneurial theory of the Multinational Enterprise', *Journal of International Business Studies*, vol. 45, pp. 8-37.

Vahlne, J & Ivarsson, I 2014, 'The globalization of Swedish MNEs: Empirical evidence and theoretical explanations', *Journal of International Business Studies*, vol. 45, pp. 227-247.

Vahlne, J & Johanson, J 2017, 'From internationalization to evolution: The Uppsala Model at 40 years', *Journal of International Business Studies*, vol. 48 no. 9, pp. 1087-1102.

Vahlne, J & Johanson, J 2013, 'The Uppsala model on evolution of the multinational business enterprise – from internalization to coordination of networks', *International Marketing Review*, vol. 30 no. 3, pp. 189-210.

Wernerfelt, B 1984, 'A resource based view of the firm', *Strategic Management Journal*, vol. 5 no. 2, pp. 171-180.

Winter, SG 2003, 'Understanding dynamic capabilities', *Strategic Management Journal*, October Special Issue, vol. 24, pp. 991-996.

Zott, C & Amit, R 2013, 'The business model: A theoretically anchored robust construct for strategic analysis', *Strategic Organization*, vol. 11 no. 4, 403-411.

Merging traditional with modern: the role of possessions in liminal transitions

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Key Words
Indigenous, Liminal Transition, Self-Identity

Abstract

A liminal transition is a period of time in which a person feels caught between two identities: who they are and who they want to become (Kevina 2012). Fighting the tension between purchasing in line with current self-identity (how a person perceives himself or herself now) and purchasing in line with aspirational identity (who a person longs to become), self-identity becomes internally conflicting, and consumers are unsure how to purchase products.

This research specifically investigates liminal transitions among indigenous people who are faced with choosing between the traditional and the modern. By indigenous individuals, I refer to those who are a native member or are ancestrally native of an ethnic community having participated in traditional ways of dress, cultural practices, etc. This research has two purposes. The first is to further understand liminal transitions and the role of products in liminal transitions. The second purpose is to examine how businesses can play a role in creating a sense of balance between the traditional and the modern. The first purpose was met through a literature review of liminal transitions, and the second purpose was met through analyzing case studies of artists and businesses who have successfully been able to bridge the gap between the traditional and the modern.

My contribution to this area of research is the connection of liminal transitions to business strategy and economic development. It is known that products and possessions play a role in easing the transition between liminal states. However, what many businesses do not recognize is that this creates a product need and a new market that have yet to be fully taken advantage of. Using liminal transitions as a source of strategy can allow businesses to produce products that bring empowerment to consumers and economic development to the community.

I. Introduction

A liminal transition is a period of time in which a person feels caught between two identities: who they are and who they want to become (Kevina 2012). For members of indigenous communities, this transition involves shifting from a highly traditional lifestyle to a contemporary one. It creates uncertainty for them as they are unsure how to fully express their self-identities. For businesses and entrepreneurs, this opens the door to a new market: creating products that merge the traditional with the modern to create balance and allow indigenous community members to express both who they are and who they want to become at the same time, which reduces the feeling of internal conflict during a liminal state.

II. A Literature Review on Liminal Transitions

As people begin to enter into a liminal stage, they undergo what is considered to be an "identity crisis" due to the imbalance of managing two identities (Szabo & Ward 2015); they exist as a social anomaly (Kevina 2012). Separated from their prior role and not yet having attained the attributes of their future state (Noble & Walker 1997), individuals will play out various roles until their identity becomes consistent with what they imagined (McCracken 1986). In the case of those who are raised in a highly ethnic environment, they can be made to feel as if they are under suspicion of being too ethnic or not ethnic enough (Zukin & Maguire 2004).

In the liminal state, consumers are unsure whether to purchase in line with their current self-identity (who a person perceives himself or herself to be currently) or their aspirational identity (who a person desires to become). It is as if they are straddling two separate worlds, not truly belonging to either (Kevina 2012). The objects in our lives that we possess are an extended part of the self and play a role in not only communicating self-identity but also in the development of the self (Belk 1988). As people undergo liminal transitions, possessions play two essential roles: preservation of the past and construction of the new, helping to facilitate the liminal transition (Noble & Walker 1997). For example, when entering into motherhood, certain consumption rituals, such as having baby showers and preparing a nursery room, can gradually transform the “mother-to-be” into a “mother” (Afflerback, Anthony, Carter, & Grauerholz 2014). The liminal state is proof of the need for a new market for individuals in these transitional stages. Products, such as clothing, should combine both the past, traditional aspects of dress mixed with the modern style in order to meet the needs of consumers undergoing this transition (Khare, Mishra, & Parveen 2012).

Liminal transitions are commonly thought to be developmental changes such as growing from a child into a teenager, but they can also be situational, such as moving to college or moving to an modern, contemporary community after living in a rural, traditional community (Szabo & Ward 2015). As that person begins to consider who they need to become in order to do well in this new community, the vision of future self conflicts with a person’s current self-identity, as they don’t want to let go of their past and previous cultural traditions while assimilating to this new environment.

This paper is specifically viewing indigenous individuals, who have moved from a traditional community into a modern, contemporary community and are working to find a balance in this liminal state. There are certain values and beliefs that people hold onto for their entire lives, but as we grow, change, and enter into different life stages, our self-identity evolves.

III. Results

From this literature review, it is clear that consumption and possessions do play a large role in liminal transitions. They allow people to develop and communicate their sense of identity as a public expression. They preserve the past version of self as well as construct a new version of self. In order for indigenous community members to find a sense of balance during the transition from a traditional to a contemporary society, products must also merge the traditional with the modern.

IV. Market Implications

The sense of conflict that exists between traditional and modern identities proves that there is a niche market that is yet to be fully taken advantage of. Those belonging to indigenous communities are choosing between products that are traditional and products that are modern. Because they are faced with this choice, they currently exist as an anomaly searching for a market that meets the needs of being traditional and modern simultaneously. Currently, there aren’t many products that blend the two, and few have taken advantage of this market opportunity.

A. Case Study: Virgil Ortiz

Virgil Ortiz, of Pueblo descent, has built onto his family’s traditional occupation as potters by combining art, fashion, and film, modernizing the traditional Pueblo American patterns and designs. Rather than forsake the traditional pottery with techniques passed down for generations, he has added a contemporary spin that embraces his identity as a modern member of the Pueblo community. The Pueblo Revolt in 1680, when the Pueblo people fought to overthrow Spanish rule, has been a major source of inspiration for Ortiz in his designs. Creating apparel designs, sculptures, pottery, and murals, Ortiz has launched the past into the future by creating a replication of the revolt while incorporating futuristic people, designs, and technology, calling this collection “Revolt 1680/2180.” Ortiz has not only managed to master balancing traditional with modern, but has also blended in the future by merging it with his own storytelling of science fiction. He continues to incorporate the patterns and figures of Pueblo culture into all of his products including his pottery, videography, photography, accessories, and apparel. His work has been exhibited around the world at various museums, including the Albuquerque Museum where I learned of his work, bringing awareness and appreciation to the history and art of Pueblo Americans.

B. Case Study: Sadakalo

Sadakalo is a retail company in Bangladesh whose intent is to market traditional clothing in a modern fashion industry. Historically, there have been two very distinct markets: one for traditional dress and one for modern apparel. The fashion market for women in Bangladesh is largely traditional in style, with 80 percent wearing traditional clothes and 20 percent wearing modern clothing. For men, the fashion market is the opposite, with 85 percent wearing modern clothing and 15 percent wearing traditional clothing. With citizens of Bangladesh being increasingly attracted to ready-to-wear clothing, Sadakalo took advantage of this new niche market by creating a product that blends traditional with modern to maximize the reach with both men and women. Sadakalo's vision revolves around creating clothing that is unique and different from other brands. At the time that the company began, most companies were focused on creating products full of vibrant color. Sadakalo's decision to produce all products in only black and white was a risky maneuver, but it has paid off well. Since first launching, the company continues to see success, opening a new outlet every year. It also partners with leading craftsmen and women of the region to keep the originality alive and incorporate the spirit of the artisans into the designs. This helps to preserve the handloom industry in Bangladesh, which provides livelihood for 1.5 million people in the country. Sadakalo's approach not only works to build the economy through a new, thriving business, it also works to preserve the country's heritage and the jobs of the handloom industry.
(Ahmed, Chowdhury, Uddin, & Ferdouset 2014)

C. Case Study: Bogolan

The ancient, Malian tradition of creating bogolan cloth (mudcloth) has turned modern, transforming the outdated art practice into an income-generating variety of products. Bogolan was once a labor-intensive and time-consuming practice where weavers would build fabric strips from cotton thread and hand-sew them together, dye the cloth, and then hand paint patterns in the negative space of the design. This cloth became an iconic symbol of Malian culture, one that tourists started to demand. Innovation of the production process was necessary in order to keep up with this growing demand, so the manufacturers started using sewing machines instead of stitching by hand and used stencils to paint the patterns to increase speed of production. This change pushed the limits of the cloth's authenticity, through efforts to speed up production while still preserving the bogolan's character and history. But for the tourist market, consumers looked for the aesthetic appeal. Bogolan didn't need to be an exact reproduction of the original process to sell, it only needed to be close enough to be associated with the original cloth that was its inspiration.

The fashion industry is what truly allowed bogolan to gain visibility and popularity, not only locally, but internationally. Bogolan was no longer used only in its traditional sense, as loose fitting garments, but started to be incorporated into a variety of consumer products: hats, scarves, jackets, miniskirts, neckties, and dresses along with household decor such as tablecloths, pillows, curtains and even made its way onto notebook covers for young children going to school. These products made bogolan a part of the consumer, a part of the extended self. "By wearing bogolan clothing, consumers make the cloth a part of themselves, a direct visual statement inseparable from their personal presence" (Rovine 2001, pg. 94). Designer Chris Seydou is credited by many for bogolan's revival in and outside of Mali as he started to design fabric prints that had subtly modulated tones to mimic the handmade imperfections in original bogolan cloth.

For artists and designers of products that use bogolan patterns, there is a tension between tradition and modernity. The artists and designers wanted to meet the demands of consumers without losing the symbolism and history of the Malian tradition. However, as Seydou has discovered, the two are not mutually exclusive; a balance can be found.
(Rovine 2001).

A few additional designers and businesses have been able to find a balance in making products that combine the traditional with the modern. Mimi Plange (of African origin), Lila Downs (a Hispanic musician), and Nuuk Couture (located in Greenland) all have been able to tie history and tradition into contemporary designs.

D. Case Study Cross-Sectional Analysis

A balance between the traditional and the modern can be found in all of these case studies. They help to create a sense of appreciation for their traditional cultures and a sense of awareness among those who are unfamiliar with where these patterns and symbols come from that have been seen in contemporary communities around the world. Ortiz creates this appreciation and awareness by having his artwork displayed at various museums where anyone can visit and see his work. Sadakalo does this by providing a product that both men and women can enjoy, which allows them to connect on a new level. And bogolan has created an appreciation for Malian culture and tradition through the fashion industry as designers from around the world have incorporated its patterns into their products. Sadakalo goes one step further than these other two case studies by keeping the power in the hands of the people. This company makes sure to preserve the handloom industry by partnering with leading craftsmen and women of the area. As all of these cases sell multiple products as a business, they each contribute to economic development as well.

V. Conclusions

A. Impact on Economic Development and Sustainability

The development of products meant for those undergoing liminal transitions has the potential to bring economic development into indigenous communities throughout the world by driving business entrepreneurship, keeping power at the hands of the people, and empowering community members. As shown by the case studies, liminal transitions are a business opportunity to create products that merge the traditional with the modern, creating a bridge between the conflicting self-identities that exist within the individual. These businesses often help to put the power back in the hands of the people. As with the case of Sadakalo, local weavers are the craftsmen and women creating the products to be sold, helping to preserve the handloom industry, preserve the livelihood of these rural community members, and therefore, contribute to the sustainability of the local community's economy. Finally, these businesses and products help to empower the people of indigenous communities. They no longer have to choose between identities, they can be the fullest version of who they are, without the sacrifices they once had to make. When the modern merges with the traditional, indigenous people will be perceived as equals, and they will become empowered individuals with the confidence to fight for their rights, develop their own future, and contribute to the development of the economy.

B. Limitations

The market implications for this paper are strictly for indigenous communities. The internal conflict that occurs during liminal transitions may be different for those who are not members of the indigenous community. The case studies examined here only represent a few indigenous communities around the world. Each indigenous community holds its own values, beliefs, and customs, and therefore, the tension between the traditional and the modern may be experienced at different levels in each of these indigenous communities.

C. Further Research

An area of interest to build off of this research would be analyzing whether the theory of liminal transitions applies to those who are not indigenous in the same way that it applies to those who are indigenous, or if there different factors that non-indigenous communities are impacted by during liminal transitions. Another area of interest would be discovering how this initiative of merging the traditional with the modern into a single product could be implemented as a social business to further promote and impact economic development rather than as a for-profit business, which is the type of business that the designers and artists discussed in these case studies have created.

VI. References

Afflerback, S, Anthony, A, Carter, S, Grauerholz, L 2014, 'Consumption Rituals in the Transition to Motherhood', *Gend. Issues,* vol. 31, pp. 1-20.

Ahmed, J.U, Chowdhury, M, Uddin, M, Ferdous, M 2014, 'Sadakalo: Marketing of Traditional Fashion in the Modern Fashion Industry', *Sage Publications,* vol. 18, no. 2, pp. 125-135.

Belk, R 1988, 'Possessions as the Extended Self', *Journal of Consumer Research,* vol. 15, no. 2, pp. 139-168.

Kevina, C 2012, '"BeTween Two Worlds": Critically Exploring Marketing Segmentation and Liminal Consumers', *Bradford,* vol. 13, no. 3, pp. 284-302.

Khare, A, Mishra, A, Parveen, C 2012, 'Influence of Collective Self Esteem on Fashion Clothing Involvement Among Indian Women', J*ournal of Fashion Marketing and Management: Bradford,* vol. 16, no. 1, pp. 42-63.

McCracken, G 1986, 'Culture and Consumption: A Theoretical Account of the Structure and Movement of the Cultural Meaning of Consumer Goods', *Journal of Consumer Research,* vol. 13, pp. 71-84.

Noble, C & Walker, B 1997, 'Exploring the Relationships Among Liminal Transitions, Symbolic Consumption, and the Extended Self', *Psychology & Marketing,* vol. 14, no. 1, pp. 29-47.

Rovine, V 2001, *Bogolan: Shaping Culture through Cloth in Contemporary Mali*. Indiana University Press, Bloomington.

Szabo, A & Ward, C 2015, 'Identity Development During Cultural Transition: The Role of Social-Cognitive Identity Processes', *International Journal of Intercultural Relations,* vol. 46, pp. 13-25.

Zukin, S & Maguire, J 2004, 'Consumers and Consumption', *Annual Review of Sociology, Palo Alto,* vol. 30, pp. 173-197.

A proposed administrative model to improve the performance of small and medium enterprises and activate their role in economic development in Saudi

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Key words
Small business, institution performance, corporate governance, total quality management

Abstracts

The current study aimed to identify the reality of application of each of the criteria good governance and total quality management of the institutions supporting small project . to determine the requirements of the proposed model for the integration of governance, quality and availability in the study sample . The key question is the possibility of the application of the pillars of quality and governance on institutions supporting small businesses. And how to improve their performance. The study relied on the descriptive analytical method and the use of questionnaire in the data collection

The most important results: The presence of the concerns of high – investigator of them indicators of the proposed model . And quality indicators got preferences of relatively higher compared to the indicators of governance. The study found the following recommendation:

- develop a working directory for small projects involves standards of quality and governance , which are compatible with the context of economic, commercial, and legal organizations for business in Saudi Arabia

The effect of outsourcing strategy on sme's performance: an empirical study of internet services providers in Egypt

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Keywords
outsourcing, strategy, Core competencies, SMEs, performance, ISP

Abstract

The focus of this research is examining the effect of outsourcing strategy on Egyptian SMEs performance, internet services provider sector, SMEs have the same business goals as larger organizations, but may have more limited resources. Among these goals are delivering cost-savings, raising customer satisfaction, achieving high performance, extending service offerings and having access to the best people, skills and technologies. The objectives of the study are to find out the types of activities outsourced by the organizations, the reasons for outsourcing and to evaluate the effects of the outsourced activities on the organizations performance, the methodology based on quantitative analysis by using a questionnaire tools to gather required data. The result also indicates that all four hypotheses were supported by model structural equation model analyses using AMOS Ver 24,

The main conclusions drawn from this study are Outsourcing Strategy has significant positive effect on SMEs Internet Services Provider (ISP) performance. the study found that the success of strategic outsourcing depended strongly on the two factors - cost driven outsourcing and focus driven outsourcing. Finally, the study found that the need to focus on core competencies was a major reason why the company chose to outsource some of its activities.

Introduction

In today's world of ever increasing competition, firms are forced to look for new ways to generate value. The world has embraced the phenomenon of outsourcing and organizations have adopted its principles to help them expand into additional markets (Dean Elmuti 2006). Strategic management of outsourcing is maybe the most powerful tool in management and outsourcing of information technology is its frontier (Quinn 2000). Regarding to Quinn and Hilmer (1994) Outsourcing is a management strategy by which a firm delegates major, non-core functions to specialized and efficient service providers, the traditional outsourcing emphasis on tactical benefits like cost reduction have more recently been replaced by productivity, speed, innovation and flexibility in developing business applications, and access to new technologies and skills (Greer and Gary 1999).

Outsourcing is useful for business because there are certain situations that can be avoided through it. For instance, firms that perform all their business activities may have to spend huge amounts on replacing obsolete technology. However, when that business function is outsourced, then organizations will not even the feel the pinch. This means that organizations can dedicate their resources to productive activities alone and thus enhance their effectiveness and efficiency (Frayer *et al.*, 2000). Successful implementation of an outsourcing strategy has been credited with guiding to cut cost (Greer *et al.,* 1999), increase capacity, improve capacity, improve quality (Kotabe *et al.,* 1998), increase profitability and productivity (Casale, 1996), improve financial performance (Dean Elmuti, 2006), lower innovation costs and risks (Quinn, 2000), and improve organizational competitiveness (Steensma and Corley, 2000).

SMEs have the similar business aims as larger organizations, but may have more limited resources. Among these goals are delivering cost-savings, raising customer satisfaction, achieving high performance, extending service offerings and having access to the best people, skills and technologies. (Amel and Hayat, 2016). Internet Service Providers (ISP) businesses today are faced with increased competition as a result of new technologies, reduced budget and customer needs. The internet services vendors are turning to outsourcing not only to reduce their operating costs but also to transform business models to compete more effectively, a trend that will continue growing. This study's results will be of help to the internet services vendor companies especially SMEs in Egypt in choosing business models to adopt following the various outsourcing strategies that they implement.

Research aims and objectives

The overall aim of this research is to evaluating the effects of the outsourced activities on the SMEs performance of the Egyptian ISP sector and develop a framework for the relationship between outsourcing and SMEs performance. The objectives of this research are to identify the types of activities outsourced by the SMEs, the reasons for outsourcing, whether some activities have stronger effects than others, and to evaluate the effects of the outsourced activities on the SMEs performance in the Egyptian setting in ISP sector.

Research Problem

The research problem was stated in which four important gaps in the literature were stated in the area of effects of outsourcing strategies on the SMEs of ISP performance of Egyptian internet services provider sector. The first gap is no consensus about the relation between outsourcing strategy and organization performance. The second gap is little studies have examined the relationship between Marketing Activities Outsourcing and SMEs of ISP performance. The third gap is only a few focused on the effect of the outsourcing strategy on telecommunications sector and there is a shortage of research that investigates outsourcing strategy in the context of the internet services provider (ISP) sector. The forth gap is limited research was held in emerging markets. Emerging markets have different characteristics such as different political, economic and institutional conditions in general in Egyptian setting in specific.

Conceptual framework and hypotheses

The research conceptual framework encapsulated in Figure (1) about the relationship between outsourcing and SMEs performance.

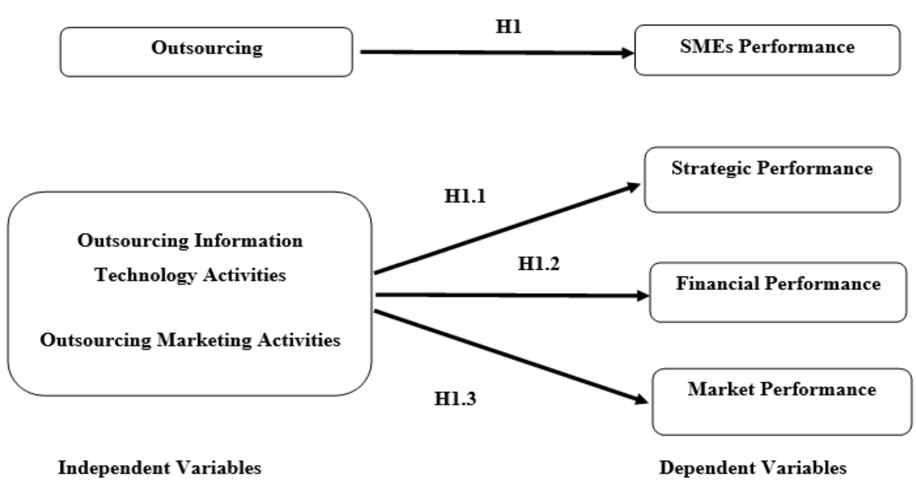

Figure: 1 Conceptual Framework

Based on the traditional core competency theory, resource-based theory and literature review analysis, the study predicts that outsourcing strategy positively affects SMEs ISP performance. The following hypothesis is:

H1: Outsourcing Strategy has a significant positive effect on SMEs ISP performance.
To test this hypothesis, the following Sub-hypotheses are formulated:
H1.1: Outsourcing Strategy has a significant positive effect on SMEs ISP strategic performance.
H1.2: Outsourcing Strategy has a significant positive effect on SMEs ISP financial performance.
H1.3: Outsourcing Strategy has a significant positive effect on SMEs ISP market performance.

Literature review

Literature of other authors was reviewed to build a theoretical foundation for the empirical research through a review of existing related literature

Organization performance

One of the most critical issues in business has been the reason a few organizations succeeded while others failed. (Abu-Jarad *et al*, 2010). It has been vital for managers to know which factors affect an organization's performance in order for them to take appropriate steps to initiate them. Moreover, according to Barney (1996) performance defining and measuring have not been a simple undertaking. scholars among themselves have different opinions and definitions of performance, which remains to be a hostile issue among organizational researchers.

Based on the articles analysis and according to Kotabe (1998), there are three types of performance measures as fundamental parts in any outsourcing performance measurement framework: strategic measures (market share and sales growth rate); financial measures (return on sales and return on investment); and quality measures. Malhorta (1997, cited in Suraju and hamed, 2013) used additional dimensions of market performance such as costs savings, cycle time, customer satisfaction, and productivity to measure the effectiveness of outsourcing strategy. In the context of this study, SMEs performance will be measured by three dimensions - strategic performance (market share and sales growth); financial performance (profitability); market performance (cost reduction and customer satisfaction)

Research Methodology and Design

The methodology for the research was developed based on the research procedures designed by Saunders *et al.,* (2016).

Research Approach: As the definition of Lancaster (2005) Deductive research develops hypotheses or theories and then tests out these hypotheses or theories through empirical observation. It is essentially a set of techniques for applying theories in the real world in order to test and assess their validity. Deductive research is the most widely used research approach in the natural sciences. This research aimed at testing theories and hypotheses through empirical observation (Creswell, 2012). Therefore, this research adopts deductive as its research approach.

Research Design: For describing trends and explaining the relationship among variables found in the literature the research will follow the quantitative research as defined by Creswell (2012) quantitative research is an inquiry approach useful for describing trends and explaining the relationship among variables found in the literature. To conduct this inquiry, the investigator specifies narrow questions, locates or develops instruments to gather data to answer the questions, and analyses numbers from the instruments, using statistics.

Data collection method: this research used a questionnaire tools to gather required data as defined by Lancaster, (2005) a questionnaire is a series of questions designed to provide accurate information from every member of the sample. To help achieve this, the questionnaire should be clear and unbiased, easy to understand and should maintain the respondent's interest, and motivation.

A five Likert scale was used to seek information from top, middle and lower level managers of the SMEs on the wide range of key measurement variables of the study.

Population and Sample: The research population will include staff of twelve SMEs of ISP, by divided' into four sectors: the first sector Greater Cairo, the second sector the Delta and Alexandria, the third sector Upper Egypt and the fourth sector governorates of Canal. The first sector includes four companies, the second sector four companies, the third sector three companies and the fourth sector one company.

The research questionnaire' was administered to three hundred (300) employees which is the study population of the 12 companies selected in Egypt. Of this lot, 254 questionnaires representing 84.6% were returned, and 42 questionnaires representing 14.7% were incomplete or ineligible or refusals and 48 were not reached. There were 212 responses, meaning a response rate of 70.6%, which is highly adequate for this study.

Unit of analysis: The unit of analysis for this research is the individual, treating employee 's response in SMEs of ISP in Egypt as an individual data source. This sector is chosen primarily because of its close relationship with the unit in the current period of time, but also due to the professional experience of the author who has worked in this sector with ISP for a period of twenty years, giving a better proximity towards obtaining valuable information via research, which would be missing if the sector were different.

Structural equation modelling (SEM)

Structural equation modelling (SEM) is a family of statistical models that seek to explain the relationships among multiple variables.

According to Byrne (2010) using the following five steps:

1) Model specification
2) Model identification
3) Model estimation
4) Testing model fit
5) Model modification

Model specification

The first step in SEM analysis is the specification of a model to be estimated. In fact, at this stage, the researcher's hypotheses are formulated as a structural equation model. Model specification involves using all available relevant theory, research and information, and developing a theoretical model. In other words, available information is used to specify the variables to be included in the theoretical model and their interrelationships.

The specification of SEM model for this component of the study involving theoretical justification of the relationships in the model was established in section 4 (Figure 1). As noted in those sections, the model is evaluating the relationship between outsourcing and SMEs performance.

Model identification

In broad terms, the issue of identification focuses on whether or not there is a unique set of parameters consistent with the data (Byrne, 2010). According to (Hair *et al*., 2010) identification refers to the correspondence between the free parameters and the observed variances and covariances. It concerns whether a single, unique value for each and every parameter can be obtained from the observed data in order to prepare for SEM procedure.

Model estimation

According to Kline (2005) the aim of this stage is to estimate the value of the unknown parameters, such as the standardized path coefficients, in such a way that the observed variance–covariance matrix is optimally adjusted to the predicted moment matrix. "Estimation concerns the procedure to be used to derive the parameter estimates, such as the coefficients and standard errors" (Schreiber, 2008).

Testing model fit

According to Hair *et al*. (2010) Once the parameter estimates are obtained for a specified model, it must be determined how well the data fit the model. Evaluation of model fit concerns the extent to which the obtained sample data support the theoretical model. Testing the structural model would be meaningless until it has been established as a good measurement model. In this study, a Confirmatory Factor Analysis (CFA) was conducted in order to establish confidence in the measurement model which specifies the posited relations of the observed variables to the underlying constructs. CFA belongs to the family of SEM techniques as it allows for the assessment of fit between observed data and a priori conceptualised, theoretically grounded model that specifies the hypothesised causal relationships between latent factors and their observed indicator variables (Kline, 2005)

Table 3: Goodness of fit (GOF) Measures

Goodness of fit (GOF) Measures	Shorthand	Recommended	Source(s)
Chi-Square/ Degrees of Freedom	χ^2/DF	≤ 2 or 3	Schreiber *et al.* (2006)
Probability value	P	> 0.05	Byrne, (2010)
Tucker–Lewis Index	TLI	≥ .95	Schreiber *et al.* (2006)
Comparative Fit Index	CFI	≥ .95	Schreiber *et al.* (2006)
Goodness of Fit Index	GFI	≥ .95	Hair *et al.* (2010)
Root Mean Square Error of Approximation	RMSEA	<.08	Hair *et al.* (2010)

Model modification – Final Analysis

Rarely is a proposed model the best-fitting model. Consequently, modification (re-specification) may be needed. This involves adjusting the estimated model by freeing (estimating) or setting (not estimating) parameters. There are potentially two possible options involved in the process of model refinement (Kline, 2005). The first option of eliminating links or "paths" with very low correlations was not applicable to the baseline model. The second option was to remove the observed variables shown by the computed modification indices as having multi-collinearity. In so doing, a total of three observed variables were deleted, one from IT outsourcing activities and two from marketing outsourcing activities. thus, leading to the best-fit measurement.

Figure 2: provides the Structural Model - Final Analysis

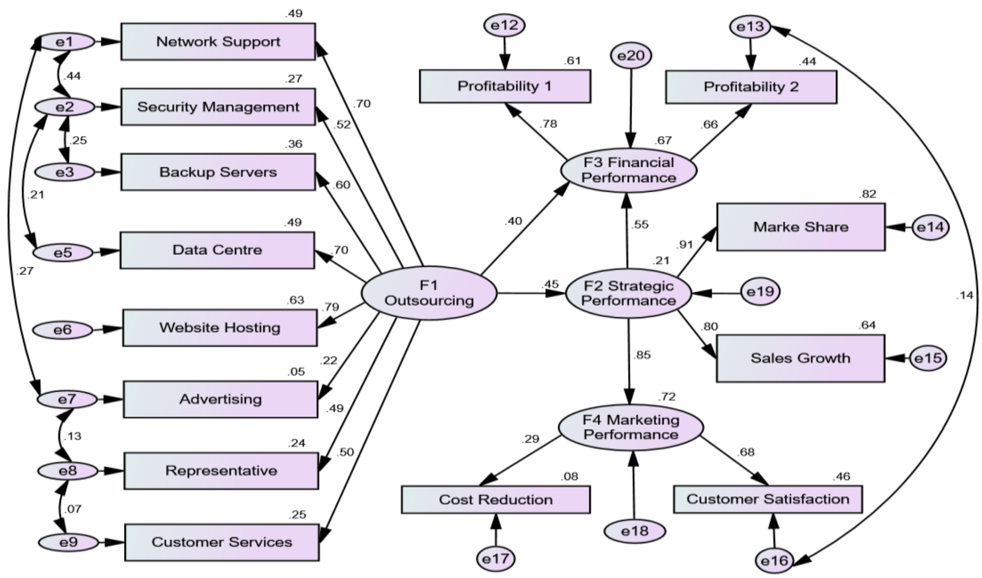

Figure 2: Structural Model - Final Analysis

The Structural Model Validity - Final Analysis:

Table (4) provides a Structural Model (Final analysis)

Table 4: Structural Model - Final Analysis

Goodness of Fit (GOF) Measures	Shorthand	Recommended	Model Result	Remark
Chi-Square/ Degrees of Freedom Ratio	□^{2}/DF	≤ 2 or 3	1. 2	accepted
Probability value	P	> 0.05	.13	accepted
Tucker-Lewis Index	TLI	≥ .95	.98	accepted
Comparative Fit Index	CFI	≥ .95	.99	accepted
Goodness of Fit Index	GFI	≥ .95	.95	accepted
Root Mean Square Error of Approximation	RMSEA	<.08	.03	accepted

Model Analysis

Based on the outcome of measurement model analysis and the structural model analysis, the hypothesized model was re-arranged to conform to the outcome of the two analyses. Having established reliability and confidence in the measurement model, an outsourcing activities measurement model and SMEs performance measurement model were developed and tested to examine the direction of assumed relationship between four latent variables (1 endogenous variable and 3 exogenous variables), depicting the postulated hypotheses under analysis. Figure (2) presents the estimated model with the respective path coefficients. The final structural model exhibited good model fit indicators (χ^2 = 78.87, DF = 65, χ^2/DF =1.2, p = 0.13, GFI = 0.95, RMSEA = 0.03, TLI = 0.98 and CFI = 0.99).

As previously mentioned, the value of SEM lies in its ability to depict both the direct and indirect effects between the variables. In light of this, the best-fit model appears to indicate that outsourcing has a significant direct relationship with strategic performance (with path coefficient = 0.45), outsourcing has a significant direct relationship with financial performance (with path coefficient = 0.40), outsourcing has a significant indirect relationship with financial performance (with path coefficient = 0.25) and strategic performance mediate the relationship between outsourcing and financial performance.

Results show in Table (7) that the estimated structural model corroborated the three hypotheses as outsourcing constructs explained 67 percent of financial performance variance (R^2 = 0.67), Besides, outsourcing constructs explained 72 percent of marketing performance variance (R^2 = 0.72) and outsourcing constructs explained 21 percent of strategic performance variance (R^2 = 0.21). A summary of the standardized path coefficients and direction of the hypothesized paths is shown in table (7). The significance of the path coefficients has been analysed using one-tailed significance ($p > 0.05$). It shows that all the hypothesized paths were supported by the result and significant at 5% significance level while the highest path loading was scored by hypothesis three which is "outsourcing activities is positively related to overall performance "

Table 7: Hypothesized path of the final structural equation model

Hypothesized path			Squared Multiple Correlations (R^2)	Remark
Strategic Performance	<---	Outsourcing	.2068	Supported
Financial Performance	<---	Outsourcing	.6671	Supported
Marketing Performance	<---	Outsourcing	.7209	Supported

Research Results

The results and hypothesis testing showed that independent variable (outsourcing strategy) had significant positive effect on Strategic Performance, outsourcing strategy had significant positive effect on financial performance and outsourcing strategy had significant positive effect on marketing performance. Finally, outsourcing strategy had significant positive effect on SMEs performance in ISP sector in Egypt See Table (8). Is to advance an understanding of the effect of outsourcing strategy on SMEs performance in details as the following:

H1: Outsourcing Strategy has significant positive effect on SMEs ISP performance.

The results indicate that Outsourcing has a significant indirect relationship with Outsourcing Strategy and SMEs ISP performance See Table (8). Previous studies by Amel & Hayat (2016) have also supported this claim. However, other studies conducted by Weigelt (2009) do not support this finding.

H1.1: Outsourcing Strategy has significant positive effect on SMEs ISP strategic performance.

The results indicate that Outsourcing has a significant direct relationship with Strategic Performance (with path coefficient = 0.45), see Table (8) and outsourcing constructs explained 21 % of strategic performance variance (R^2 = 0.21). see table 9) This finding was supported by previous literature (Agrawal and Hall, 2013). However, some studies conducted by Weigelt (2009) do not support this finding.

H1.2: Outsourcing Strategy has significant positive effect on SMEs ISP financial performance.

The results indicate that Outsourcing has a significant direct and indirect relationship with financial Performance through the mediator variable (strategic performance) and outsourcing constructs explained 67 % of financial performance variance (R^2 = 0.67). see table (8). This was supported in previous studies by (Opiyo Maurice (2017) However, other studies conducted by Gilley *et al*. (2004) do not support this finding.

H1.3: Outsourcing Strategy has significant positive effect on SMEs ISP market performance.

The results indicate that Outsourcing has a significant indirect relationship with marketing performance through the mediator variable (strategic performance) and outsourcing constructs explained 72 % of marketing performance variance (R^2 = 0.72). see table (8). This finding was supported by previous literature (Agrawal and Hall (2013)).

Table 8: Summary of Results

Hypothesis	Supported / Not Supported
H1: Outsourcing Strategy has a significant positive effect on SMEs' ISP performance.	Supported
H1.1: Outsourcing Strategy has a significant positive effect on SMEs' ISP strategic performance.	Supported
H1.2: Outsourcing Strategy has a significant positive effect on SMEs' ISP financial performance.	Supported
H1.3: Outsourcing Strategy has a significant positive effect on SMEs' ISP market performance.	Supported

Discussion and Conclusion

Evaluate the effects of the outsourced activities on the SMEs performance in Egyptian setting in internet services provider sector:

The study found that cost was the first most important driver for outsourcing in the SMEs of ISP. Although more strategic reasons are now being fronted, the traditional cost reduction driver is still a basic one in many a manager's minds. This confirms the prior studies by Kakabadse and Kakabadse (2002)

The findings from the study show that strategic outsourcing has a significant positive effect on the SMEs of ISP performance, whether it is the short run as in reduced operational costs and increased profitability; or in the long run in terms of improved market share and customer satisfaction. According to Cox *et al.*, (2011) short-term cost-based performance is almost always certain in outsourcing, but better long-term relationships may result in substantially improved terms and conditions, hence better long-term performance. The findings above present a consistent affirmation that strategic cost driven outsourcing leads to improved organizational performance.

SMEs of ISP may choose to incorporate outsourcing in their corporate strategies with a bid to reduce cost and risk while increasing efficiency. Strategic outsourcing results in improved organizational performance by reducing costs and risks associated with inhouse production, increasing operational efficiency, and therefore increasing profitability and growth. Well managed outsourcing results in both short-term cost reduction and long-term efficiency and sustainable performance.

The findings of this study indicate the need to let go of non-core functions so as to concentrate on building and sustaining a company's core competencies. This agrees with Lacity *et al.*, (2017) that there is need for organizations to let go of non-core activities so as to focus on building their core competencies. The findings confirm the research findings of Alner (2001) that concentrating on core competencies by outsourcing some activities generates numerous benefits for an organization such as creating synergy, leverage and flexibility.

Strategic outsourcing is one way by which firms may build and sustain their core competencies, which is vital for survival. Therefore, SMEs of ISP needs to create a focus around its core competencies, which entails handing over the activities of low strategic value to specialists who can do them better through strategic outsourcing. Therefore, strategic outsourcing frees up company's resources so as to concentrate on its core business. This creates competitive advantage which in turn leads to improved sales, better profits, more satisfied customers and better market share. Therefore, focus driven outsourcing leads to improved organizational performance.

The findings of this study show outsourcing can be used as a strategic tool to free up a company's resources so as to focus on its core competencies. This study confirmed that focusing on core competencies is a major contributor to improved performance and it creates competitive advantage. The findings of this study agree with the prior studies that strategic focus driven outsourcing leads to improved organizational performance.

Research Recommendations

Based on the findings of the study, the following recommendations can be summarized:

SMEs may choose to incorporate outsourcing in their corporate strategies with a bid to reduce cost and risk while increasing efficiency. Strategic outsourcing results in improved organizational performance by reducing costs and risks associated with inhouse production, increasing operational efficiency, and therefore increasing profitability.

The study recommends that SMEs should clearly identify their core competencies from the non-core activities. Managers should review the potential benefit to be gained if the non-core activities are outsourced. Outsourcing strategy should be so structured that it enables the organization to concentrate its efforts on building its core competencies to a best-in-world level, so as to generate competitive advantage. Core competencies can never be outsourced. In case of shortage of skills and required expertise if development of such skills is challenging and availability of external contractors for conducting the activities is ensured, it is suggested to outsource this ISP SMEs activities.

The recommendation of this research is in its relevance to SMEs managers in Internet Services Provider (ISP) in seeking to go the way of outsourcing as it will guide them in their outsourcing decision-making process. It presents the essential details they need to know about this strategy as applied in Egypt and the benefits and challenges associated with it.

Furthermore, the results of this study can also be used as relevant guidelines for developing future business plans and making changes or improvements in the current activities of players in the Egyptian SMEs sector. It gives an idea of the areas which need to be emphasized more for better development and future growth.

Research limitations

External validity can be defined as refers to the degree to which the results can be generalized to the wider population, cases or situations. (Cohen et al 2007). Therefore, researcher cannot assume that research findings generalize to other settings, so the research does not consider:

The sample in this study is restricted to one country (Egypt) and one sector (Internet services provider); consequently, the findings need to be interpreted with caution. Although the research context is quite specific, it is believed that the findings are of relevance to other sectors and other countries.

This research will be used cross-sectional data to test the association of outsourcing strategy with SMEs performance. So, the study provides only a snapshot picture at a single point in time, which means that the research is valid only if external environment variables such as: government regulations, economic cycle, competitive environment, etc., are unaffected.

For this research we use questionnaires to gather relevant information on the extent of outsourcing on SMEs performance. The use of additional data collection methods such as observation in order to enhance the richness and depth of future studies should be considered.

For this research we use quantitative methods of research, it might be an interesting future researcher can use qualitative methods to understand the entire scenario of SMEs outsourcing practices in Egypt.

Suggestions for future research

Following the suggestions for future research from this study, three major areas of research are recommended as follows:

The survey carried was out based on the company's employees' perspective of outsourcing practices in the organization. Other stakeholders' perspectives such as customers are suggestions for future research.

This study investigated the client 's perspective which is only one side of the SMEs outsourcing practices. A bilateral perspective of the research questions (i.e. from both sides) permits a balanced understanding and fuller examination and comparison between the perceptions of the two sides of the relationship. This represents a worthy route of inquiry for future scholars.

According to Lacity *et al*., (2017), in future, focus will shift from cost-cutting to value added services particularly in information technology outsourcing. The focus of future research will definitely on value addition, not only the cost factors.

References

Abu-Jarad, Yusof, Nikbin, (2010), A Review Paper on Organizational Culture and Organizational Performance, International Journal of Business and Social Science, Vol. 1 No. 3.

Agrawal, P. and Haleem, A. (2013). The impact of the outsourcing of IT on firm performance: an empirical study. International Journal of Management, Vol.30, pp. 121–139.

Alner, M. (2001). "The effects of Outsourcing in Information Security". Information Systems Security. Vol. 10, No.2, pp. 35-43.

Amel G. and Hayat B., (2016), "Outsourcing marketing activities for a successful small and medium sized enterprises", Maghreb Review of Economic and Management, Vol 03 - No 01, pp 95-102.

Barney, J. & Clark, D. (2007). Resource-Based Theory: Creating and Sustaining Competitive Advantage. Oxford, U.K.: Oxford University Press.

Byrne, B.M. (2010), Structural Equation Modelling with AMOS: Basic Concepts, Applications and Programming, Lawrence Erlbaum, Mahwah, NJ

Casale, F.J., (1996), Introduction to outsourcing. The Outsourcing Institute 1. CCGRID2002. Pp. 332 – 337

Cox, M.; Roberts, M. and Walton, J. (2011). "Motivations for IT Outsourcing in Public Sector Local Government." Proceedings of the 2nd International Conference on Information Management and Evaluation. Toronto. Canada, pp. 141-149.

Creswell John W., (2012), Planning, Conducting, and Evaluating Quantitative and Qualitative Research, Pearson Publications

Dean Elmuti, (2006), "The Perceived Impact of Outsourcing on Organizational Performance", Mid-American Journal of Business, Vol. 18, No. 2, pp 33-41

Frayer, J.K., Scannell, J.D., and Thomas, V. (2000). "An Empirical Investigation of Global Sourcing Strategy Effectiveness". Journal of Supply Chain Management, Vol.36, No.2, pp.29-38.

Gilley, K.M., Greer, C.R. and Rasheed, A.A. (2004). Human resource outsourcing and organizational performance in manufacturing firms. Journal of Business Research, Vol. 57, pp. 232–240.

Greer, C.R., S.A. Youngblood, and D.A. Gary. (1999), "Human resource management outsourcing: The make or buy decision", Academy of Management Executive, Vol.13, No,3, pp85-96.

Hair, J.F., Black, W.C., Babin, B.J., and Anderson, R.E. (2010), Multivariate data analysis: a global perspective, Prentice-Hall, Inc., Englewood Cliffs, NJ, USA

Kakabadse A., Kakabadse N. 2002. Trends in outsourcing: Contrasting USA and Europe. Cranfield School of Management UK.

Kline, R.B. (2005), Principles and Practice of Structural Equation Modelling, 2nd ed., Guilford Press, New York, NY

Kotabe, M. (1998). Efficiency vs. Effectiveness Orientation of Global Sourcing Strategy: A Comparison of U.S. and Japanese Multinational Companies. Academy of Management Executive, pp 107-119

Lacity M et al., (2017), Review of 23 Years of Empirical Research on Information Technology Outsourcing Decisions and Outcomes, Hawaii International Conference on System Sciences.

Lancaster Geoff, (2005), Research Methods in Management, A concise introduction to research in management and business consultancy, Elsevier Butterworth-Heineman.

Opiyo Maurice ,2017, Effects of outsourcing on an organizational performance in Kenya, International Journal of Advanced Research, Vol.5, No.2, pp.1626-1633

Quinn, J. and Hilmer, F. (1994) Strategic outsourcing. Sloan Management Review Summer, pp. 43–55.

Quinn, J.B, (2000), "Outsourcing innovation: The new engine of growth", Sloan Management Review, Vol.41, No. 14, pp.13-23.

Saunders Mark, Lewis Philip, Thornhill Adrian, (2016), Research Methods for Business Students, Pearson Education Limited.

Schreiber, Stage and King, (2006), Reporting Structural Equation Modelling and Confirmatory Factor Analysis Results: A Review, The Journal of Educational Research, Vol. 99, No. 6.

Steensma, K.R. and K.G. Corley. (2000), "On the performance of technology-sourcing partnerships: The interaction between partner interdependence and technology attributes", Academy of Management Journal, Vol.43, No. 6, pp.1045-1067.

Suraju and hamed, (2013), "Outsourcing Services as a Strategic Tool for Organizational Performance: An Exploratory Study of Nigerian Food, Beverage, and Tobacco Industry", Journal of Management Policies and Practices, Vol. 1, No1. pp. 01-20

Weigelt, C. (2009). The impact of outsourcing new technologies on integrative capabilities and performance. Strategic Management Journal, Vol.30, pp. 595–616.

Exploring the moderating role of entrepreneurial education and mediating role of entrepreneurial attitude on the relation of entrepreneurial characteristics and entrepreneurial intention.

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Keywords
Entrepreneurial Attitude, Entrepreneurial Characteristics, Entrepreneurial Education, Entrepreneurial Intention, Mediation, Moderation.

Abstract

Enhancing entrepreneurship and entrepreneurial activities are one of the most important concerns of a majority of governments around the world. They see this as a tool to encourage young qualified skilled people as a job creator not as a job seeker.

The aim of this study is to empirically examine the moderating effect of entrepreneurial education and mediating effect of entrepreneurial attitude on the relation of entrepreneurial characteristics and entrepreneurial intention.The sample of this empirical study consists of 235 business administration final year undergraduate students who have already attended entrepreneurship course. Simple random sampling method is used to choose the sample. Self-report data were collected through structured questionnaire. The data were analysed by using descriptive statistics, factor analysis, multiple regression and path analysis.

The result of data analysis shows that entrepreneurial attitude act as a partial mediator and entrepreneurship education act as partial moderator on the relation of entrepreneurial characteristics and entrepreneurial intention. The outcome of this study suggests that higher education institutions should focus on modifying student's attitude through entrepreneurial education and business incubation programs to encourage more entrepreneurial activity.

Developing entrepreneurial mindsets In under-served communities: Lessons learned.

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Keywords
Entrepreneurs; Under-served; Economic development; Minority Business

Abstract

The paper will present a summary of the original research commissioned by the Opportunity Funding Corporation (OFC), which after 40 years of service to the minority business development community, merged under the Thurgood Marshall Foundation. The study reviewed entrepreneurship outcomes across Historically Black Universities (HBCUs) and impacts on economic development in minority communities.

This paper also reviews recent entrepreneurial initiatives of Medgar Evers College Entrepreneurship and Experiential Learning Lab (EEL) which were funded by the CUNY Strategic grant and Carnegie Corporation. The efforts include co-curricular programs such as study abroad, entrepreneurial Bootcamp, industry mentors, business plan competitions, and individualized venture support.

Finally, the paper compares the outcomes of the earlier body of work to current entrepreneurial program outcomes to assess progress in the ability to increase the entrepreneurial mindsets of students and others served by entrepreneurship programs. Several academic papers were written under the auspices of grant funding; we discuss the results of these studies. The goal is to assess strengths and weaknesses of academic programming to both improve career readiness and entrepreneurial skill sets across academic disciplines.

1. Introduction

There is much in the literature related to innovation, venture creation, and economic development; however often the success factors do not translate the equally across racial, income, and other socio-economic factors. Entrepreneurship capacity building in underserved communities is vital in developing increased employment opportunities and economic viability. In this paper, we will review our initial study in 2013 commissioned by the Opportunity Funding Corporation (OFC) with a mission to assess program outcomes from the support of Entrepreneurship curriculum development, business plan competitions, and other related initiatives.

We will contrast the outcomes from the OFC initiatives to the body of entrepreneurship and economic development work at Medgar Evers College.

2. Literature Review

We start with the OFC study as few private institutions in US history had the broad, and sustained impact on entrepreneurship capacity building in minority communities. The OFC study included 22 Historically Black Colleges & Universities (HBCUs). Study participants included Business School deans, students, and entrepreneurship faculty. We compared Entrepreneurship curriculum, courses, and programs; outcomes indicated few entrepreneurship programs. However, there was an increase in the number of classes and experiential learning opportunities such as business plan competitions, small business consulting, and collaborations with small business or entrepreneurship assistance centers. (Rolle, Billy, & Pittman, 2015).

The OFC primary program was the business plan competition. The competitions were held for ten years in succession until the merger of the OFC with the Thurgood Marshall Foundation. Participating students were surveyed during the last and final year of competition. Of the students surveyed, a significant number had no business experience nor entrepreneurship training; in this sample, there is a gender gap; women had more business experience than men.

Most business school deans surveyed indicated that the business plan competition ideas were viable. However, students lacked the commitment, infrastructure, and finance to launch successful ventures. Faculty surveyed indicated student growth in teamwork, communication, presentation, marketing, and writing skills. While the business plan competition focused on the launching of a start-up venture, students, faculty, and deans concurred that most students were preparing for corporate careers.

A key finding was that while many institutions participated in business plan competitions, and other entrepreneurship experiential learning activities, none in the study, successfully tracked the number of new ventures that launched. The OFC study did not include Medgar Evers College. However, the College has a rich history of entrepreneurship and community economic development. "A Case Study of Institutional Growth in Entrepreneurship at Medgar Evers College" was published in 2016. The paper addressed the socio-economic challenges of gentrification in Brooklyn and Crown Heights. (Billy, Egbe, Rolle, et al., 2016). Historically the College has developed entrepreneurial infrastructure through the Small Business Development Corporation, Center for Entrepreneurship Economic Development (CEED), Brooklyn International Trade Development Center (BIDTC), Census Information Center (CIC) and in 2015 launched the Entrepreneurship & Experiential Learning Lab (EEL)

The EEL at Medgar Evers College is a 1,000-sq-ft space that connects students, faculty, community stakeholders and innovators. The lab collaborates with international partners and draws upon business techniques to address social problems in Central Brooklyn and developing countries. Startups at EEL receive access to industry experts, interns, and community and corporate partners. (Billy, Egbe, Rolle, et al., 2016). The launching of the EEL expanded faculty and student participation in business plan competitions and business "Bootcamp" training. Data presented by Fullbridge, one of the training vendors, validated increase work readiness, employment placement, and student satisfaction after training. A survey of Medgar student participants indicated that 91% of the students' expectations were exceeded. The EEL lab became host to "Mock Shark Tank" competitions; "Mock Project Runway" competitions; CUNY University-wide competitions; and state regional competitions.

3. Engagements in Global Entrepreneurship Experiential Learning

Medgar Evers College School of Business hosted two international conferences in 2016: Social Entrepreneurship & Empowerment; and Social Corporate Responsibility. Since the June 2016 Conference on Corporate Social Responsibilities in Brooklyn, the participants have collaborated on research, publications, study abroad, and presentations (Rolle, Javalquinto, Billy, Acevedo, et al., 2016). During 2016-17, Medgar Evers College students and faculty engaged in study abroad; international workshops; and international conference presentations. Students and faculty have studied entrepreneurship in Japan, China, Thailand, Chile, Costa Rica, Jamaica, Kenya, London, Paris, Italy and Dominican Republic. The College has collaborated with four international partners via signed agreements.

The most recent study with our international partners is, "The Cultural Genogram: An International Cross-Cultural Case Study on Entrepreneurship." The research reviews cultural differences and similarities between students that study entrepreneurship in Kenya, Chile, and at Medgar Evers College. (Zarbabal, K, Rolle, JD, Billy, I, Kisato, J) The study found a wide diversity in appreciation of entrepreneurship: Chile ranked the highest; Kenya second and Medgar students last. The Medgar students, while engaged in entrepreneurial activity, were cognizant of the social and economic barriers to venture launch and the parental preference to employment.

4. Lessons Learned

What have we learned from OFC's strategy to build entrepreneurship capacity in under-served communities through engagement of HBCU's in business plan competitions? What have we learned at Medgar Evers College as we studied entrepreneurship globally? What critical success factors should we develop in new entrepreneurship programs:

A. Academic entrepreneurship curricular and co-curricular programs have increased significantly in HBCUs and Predominately Black Institutions (PBI).

B. Under-served communities are diverse with complex socio-economic challenges which may require different solutions.

C. Faculty engagement in program development and execution increases program success.

D. Collaboration with industry on innovation, training, and career readiness is paramount to venture and employment success.

E. Academic entrepreneurship program sustainability may be a challenge unless infused in the academic curriculum.

F. The tracking of important program outcomes such as the number of ventures created, launched, and sustained is critical to program accountability.

G. Entrepreneurship programs enhance and improve soft skill development, e.g., presentation, communication, marketing, and analytical skills.

H. Students engaged in entrepreneurial activity increase their career readiness.

I. Entrepreneurship study abroad increases global student awareness and cultural perspectives.

J. Students that study entrepreneurship in under-served communities in undergraduate programs most likely will enter alternative careers.

K. Students that launch ventures during, or immediately after, their undergraduate study has small lifestyle businesses.

L. A significant number of students at Medgar Evers College was interested in launching social entrepreneurship ventures.

M. Co-curricular business training is vital as a success factor irrespective of academic discipline.

N. Group workshops yield less impact than one-on-one business development.

O. Industry mentorship has the potential if utilized appropriately, to increase career readiness.

P. Students with different experiences and diverse needs require agile academic and soft skill programming to optimize the entrepreneurial mindset and success potential.

5. Conclusion

As globally, fewer employment opportunities become available for graduates, we must find innovative and creative methods to develop entrepreneurial alternatives.

The significant finding is that there is no one answer to entrepreneurial program development for under-served communities. Differences and variances in socio-economic environments require programs developed to meet the needs of all the respective stakeholders.

6. References

Billy, I, Egbe, E., Rolle, J.D., et al., (2016). "Case study of institutional growth in entrepreneurship at Medgar Evers College." American Journal of Entrepreneurship(9)1.

Rolle, J.D., Billy, I., Acevedo, R., Kisato, J, "(2016) "Preparing Students for Entrepreneurship Careers," American International Journal of Humanities and Social Science" (2)6.

Rolle, J. D., Billy, I., Pittman, J. (2015). "A case study of Entrepreneurship Capacity Building in underserved communities." Business & Technology Journal (2)1.

Rolle, J. D., Javalquinto, B., Billy, I., Acevedo, R, et al. (August 2016). "Exploring Corporate Social Responsibility Globally." Business & Management Review (8)1.

Zarbabal, K, Rolle, JD, Billy, I, Kisato, J et al., (2017) "The Cultural Genogram: An International Cross-Cultural Case Study on Entrepreneurship" International Journal of Business and Economic Development, (5)3.

The Affect factors of SMEs' outsourcing decision making

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Keywords
outsourcing, core competencies, Risk, decision, benefits, SME.

Abstract

The focus of this paper is to develop a framework for SMEs' outsourcing decision making, this paper will review recent studies of related dimensions to identify the factors affect outsourcing decision which are including two main categories, the outsourcing benefits and the risks of outsourcing .the benefits factors for outsourcing are cost reduction, transfer fixed costs to variable, improve service quality, Increase speed, increase flexibility, access to latest technology, increase focus on core competencies. The risk factors of outsourcing are hidden costs, loss of core competence, less flexibility, loss of knowledge, supplier problems and low morale. The study found that the framework for SMEs' outsourcing decision making, based on the factors found from this study, is including four factors affect outsourcing decision which are outsourcing benefits, outsourcing risks, core competencies and vendors (suppliers).

Introduction

Outsourcing is useful for business because there are certain situations that can be avoided through it. For instance, firms that perform all their business activities may have to spend huge amounts on replacing obsolete technology. However, when that business function is outsourced, then organizations will not even the feel the pinch. This means that organizations can dedicate their resources to productive activities alone and thus enhance their effectiveness and efficiency (Frayer *et al*., 2000). Successful implementation of an outsourcing strategy has been credited with guiding to cut cost (Greer *et al.,* 1999), increase capacity, improve capacity, improve quality (Kotabe *et al.,* 1998), increase profitability and productivity (Casale, 1996), improve financial performance (Dean Elmuti, 2006), lower innovation costs and risks (Quinn, 2000), and improve organizational competitiveness (Steensma and Corley, 2000).

SMEs have the similar business aims as larger organizations, but may have more limited resources. Among these goals are delivering cost-savings, raising customer satisfaction, achieving high performance, extending service offerings and having access to the best people, skills and technologies. (Amel and Hayat, 2016).

Outsourcing Benefits

According to Kakabadse and Kakabadse, (2000), there are three main categories of benefits for outsourcing: cost, strategy, and politics. The first two commonly drive outsourcing by private business. Political agendas often drive outsourcing by public organizations. In the context of this study, cost perspective and strategic perspective are discussed in more detail in the following sub-sections.

Cost perspective: Several of the secures identify the desire to save costs as an explanation for why outsourcing occurs (Lacity *et al*., 2017). In theory, outsourcing for cost reasons can occur when suppliers' costs are low enough so that even with added overhead, profit, and transaction costs suppliers can still deliver a service for a lower price (Kakabadse and Kakabadse, 2000).

One may consider how an organization can achieve enough savings to cover an additional layer of overhead and still meet profit requirements yet perform a function for less than another organization already doing the function. Specialization and economies of scale are systems used to accomplish this level of proficiency (Kakabadse and Kakabadse, 2000; Quinn *et al*., 2000; Roberts, 2001). In fact, cost savings due to outsourcing can be quite significant. Some organizations outsource to achieve better cost control, to improve profitability, to improve operating efficiency, and to add value to the product (Hayes *et al*., 2000; Al-Gharbi *et al*., 2009). Others try to shift fixed costs into variable costs (Kakabadse and Kakabadse., 2000; Lacity *et al*., 2017).

This reduced investment in manufacturing capacity lowers fixed costs and convert them into variable costs (Kakabadse and Kakabadse, 2000). Converting fixed costs into variable have a direct effect on companies' business indications, for example a return on assets (ROA) and a net profit can be improved (Kumar & Eickhoff, 2005). Transferring fixed cost into variable entails short-run cost improvements and encourages companies to outsource (Gilley & Rasheed, 2000).

Table (1) show factors of the outsourcing benefits.Table 1: Outsourcing benefits

Article	Author	Year	Cost perspective		Strategic perspective				
			Cost reduction	Transfer fixed costs to variable	Improve service quality	Increased speed	Increased flexibility	Access to latest technology	Increase focus on core competencies
New strategies let companies concentrate	Krizner	2000	√			√			√
Information systems outsourcing announcements	Hayes *et al.*	2000	√				√		
Critical review – outsourcing	Kakabadse and Kakabadse	2000	√	√	√	√	√	√	√
Managing strategic outsourcing	Roberts, P.	2001	√		√		√	√	√
OIS: Drawing lessons from a banking	Baldwing *et al.*	2001	√		√		√	√	√
Market viewpoint : outsourcing is no-claims bonus	Wright	2001						√	√
The effects of outsourci	Alner	2001	√					√	√

ng in Information Security									
Outsourcing: assessing the risks and benefits	Harland *et al.*	2005	√			√	√	√	√
IT/IS Outsourcing from Omani organizations	Al-Gharbi *et al.*	2009	√					√	√
Motivations for IT outsourcing in public Sector	Cox *et al.*	2011	√		√		√		√
The Benefits of the outsourcing strategy	Smadi and Al- Jawazneh	2016	√		√			√	√
Review of 23 years of empirical research	Lacity *et al.*	2017	√	√		√	√		√

Strategic perspective: More recently the main drivers for outsourcing appear to be shifting from cost to strategic issues such as core competence and flexibility (Krizner, 2000). The literature suggests that the focus on core activities to improve organizational competitiveness, to leverage the firm's skills and resources and to enhance customer satisfaction, plays an important role in attracting outsourcing (Baldwing *et al*., 2001; Harland *et al*., 2005; Cox *et al*., 2011; Lacity *et al*., 2017).

According to Quinn and Hilmer (1994) and Quinn (2000), the most strategic outsourcing reason is to allow the organization to better concentrate on its core activities, in addition to improving service quality (Kakabadse and Kakabadse, 2000; Roberts, P. ,2001; Baldwing *et al*.,2001; Cox *et al*., 2011; Smadi & Al- Jawazneh 2016). Other papers focus on increased speed to improve performance (Krizner, 2000; Kakabadse and Kakabadse, 2000; Harland *et al*., 2005; Lacity *et al*., 2017). Several studies focus on increased flexibility to reduce the constraints of organization's own production capacity, to increase responsiveness to market change and to reduce risks (Hayes *et al*., 2000; Roberts, P. ,2001; Baldwing *et al*.,2001; Cox *et al*., 2011; Lacity *et al*., 2017).

By outsourcing, organizations can increase flexibility in a many different ways. Basically, flexibility can manifest itself in two ways. First, flexibility refers to an ability to adapt capacity to demand shifts in the short-term (Quinn & Hilmer, 1995). When the demand peak occurs, external suppliers' capacity can be used to level these peaks (Jennings, 2002). Second, flexibility refers to an ability to adapt to changing business environment' in the long-run (Quinn & Hilmer, 1995). Furthermore, it allows access to latest technology to achieve competitive advantage (Wright, 2001; Harland *et al*., 2005; Al-Gharbi *et al*., 2009; Smadi & Al- Jawazneh 2016). Quality improvements can also be achieved by outsourcing, because organizations can in most cases choose the supplier whose quality is excellent (Gilley & Rasheed, 2000). Because suppliers have concentrated on their specific area and have specialized equipment and personnel, they can provide higher quality than an organization could ever achieve alone (Quinn & Hilmer, 1995).

Based on the articles analysis, Lonsdale & Cox (1998) categorize five main reasons why organizations outsource; cost reduction, focusing resources on core activities, converting fixed costs to variable, benefiting from supplier's innovation and investment and improving time to market. On the other hand, according to Quelin & Duhamel (2003), the most important factor of the outsourcing decision is to lower operational costs, the second is to focus on core activities and the third is to gain flexibility. Lacity *et al.*, (2017) survey of 430 articles between 1992-2014 concluded that the factors service improvement, quality increase, flexibility and access to latest technology, motivated 100 % of the outsourcing decision. The factors of cost reduction, increase of focus on core competencies and transfer fixed costs to variable, motivated more than 94 % of the outsourcing decision.

The above findings are corroborated by Deloitte´s (2005) surveys. Most western companies outsource primarily for short-term cost savings (Kakabadse & Kakabadse, 2002; Deloitte, 2005).

Moreover, Forrester Survey, 2014, Canvassed 13,822 business and technology decision-makers located in Australia, Brazil, Canada, China, France, Germany, India, New Zealand, the UK, and the US from SMEs companies with two or more employees. It showed reducing costs motivated 64% of the outsourcing decision.

Risks of outsourcing

Outsourcing can provide many benefits and some managers even regard it as risk-free (Lonsdale & Cox, 1997). However, there is always the other side of the coin and many risks are related to outsourcing. In an ideal world, markets would operate effectively without any friction or transaction costs (Quinn & Hilmer, 1995). However, in the real world most supply markets are imperfect and encompass a great deal of risks (Quinn & Hilmer, 1995).

A wide array of outsourcing risks has been identified in literature and risks range from minor setbacks to catastrophic consequences. The risks may result from the supplier, from the business environment or from the outsourcing organization itself (Aron et al, 2005). These risks are discussed in more detail in the following sub-sections:

Table 2: The risks of outsourcing

Article	Author	Year	Hidden costs	Losing opportunities	Loss of knowledge	Supplier problems	Less flexibility	Low morale	Loss of core competence
Critical review – outsourcing	Kakabadse and Kakabadse	2000	√	√	√	√		√	√
Managing strategic outsourcing	Roberts, P.	2001		√	√	√	√		√
A Validation of measures associated with the risk factors in ITO	Bahli *et al.*	2002	√			√			√
Validating measures of ITO risks factors	Bahli and Rivard	2005	√			√			√
Risks factors associated with offshore IT outsourcing	Tafti M.	2005	√	√	√		√		
Outsourcing contracts as instruments of	Ngwenyama and Sullivan	2007	√	√					√

risks management									
A comparative study of important risks factors	Nakatsu and Iacovou	2009	√				√	√	
Identifying risks factors of IT outsourcing	Fan, Suo and Feng	2012	√			√	√		
Analysis and application of an outsourcing risk framework	Abdullah and Verner	2012	√	√				√	√

Hidden costs: It is not certain that outsourcing could lead to cost savings for SMEs. (Kakabadse & Kakabadse, 2000; Bahli *et al*., 2002; Bahli and Rivard,2005; Tafti M., 2005; Ngwenyama and Sullivan, 2007; Nakatsu and Iacovou, 2009; Fan, Suo and Feng ,2012; Abdullah & Verner ,2012). According to Barthélemy (2001) many organizations underestimate costs related with activities to setup, transition to, and manage an outsourced environment.

These hidden costs can easily undercut expected benefits of outsourcing. For example, reducing the cost of wages after outsourcing does not always lead to lower organizational overall costs. Therefore, it is important to know that there are other costs associated with the transaction (subcontracting). These could be the cost of the contract, the cost of monitoring or performance. At the end of the day when we combine and compare all these costs of outsourcing with insourcing, outsourcing could be more expensive.

Loss of core competence: Many researchers argued that losing core activities is the most important risk of outsourcing. (Kakabadse & Kakabadse, 2000; Roberts, P, 2001; Bahli *et al*., 2002; Ngwenyama and Sullivan, 2007; Bahli and Rivard,2005; Abdullah & Verner,2012)

According to Lonsdale & Cox, (1998) there are two ways of losing core activities. First is the case that management unintentionally outsources a core activity, such as when the primary target for outsourcing is short-term cost-cutting or headcount reduction (Leavy, 2004). In addition, suppliers may at first offer overoptimistic cost savings which can misguide managers (Lonsdale & Cox, 1998). Second is the case where outsourced activity did not seem to be a core activity at the moment of outsourcing decision, but later on turned out to be such one (Lonsdale & Cox, 1998). Managers fail to recognize the sources of competitiveness in the future and long-term competitive advantage is traded off for short-term advantage (Leavy, 2004).

The core activities for a business change over time, activity which is or appears to be non-core at the moment may become a core in the future (lbid).

Less flexibility: Flexibility is one motive for outsourcing and indeed flexibility is often increased. On the other hand, outsourcing does not always lead to greater flexibility (Lonsdale & Cox, 1998). Instead, some researchers have argued that, in some occasions, outsourcing can lead to loss of strategic flexibility. (Roberts, P, Tafti M., 2005; Nakatsu and Iacovou, 2009; Fan, Suo and Feng, ,2012) In addition, the existence of dependency does not make things any easier (Lonsdale & Cox, 1998).

Loss of knowledge: In case an organization outsources an activity, it inevitably loses some knowledge and skills (Kakabadse & Kakabadse, 2000; Roberts, P, 2001; Tafti M., 2005; Abdullah & Verner,2012). This is on intrinsic by-product of the process of outsourcing (Aron et al, 2005). When an organization ceases to conduct an activity, knowledge and skills related to it fade away (lbid). However, losing knowhow does not happen overnight. Instead it may happen over the years (Chen, 2004). When an organization outsources too much, it can turn into a hollow one (Belcourt, 2006). When an activity once minor for the business becomes someday important, the organization may not any more possess the needed skills for conducting that activity (Aron et al, 2005; Belcourt, 2006; Leavy, 2004).

Supplier problems: Another branch of studies focuses on Supplier problems as the most important risks of outsourcing. (Kakabadse & Kakabadse, 2000; Roberts, P, 2001; Bahli *et al*., 2002; Fan, Bahli and Rivard,2005; Suo and Feng,2012). supplier problems can manifest in many ways. First, supplier ceases supplying. Dependency issue is related to the risk of supply interruptions (Lonsdale & Cox, 1998).

Dependency and the lack of alternative suppliers are the key factors which determine the level of the risk. However, shortage of supply can occur without the dependency (Ibid). Second, Poor quality of supply. Again, issue of dependency plays a role with this risk (Lonsdale & Cox, 1998). In the case of high dependency, supplier may take an advantage of it and supply only at that level of quality, which only just satisfies the buyer (Ibid).

Low morale: The effect on employee morale as one of the primary risks of outsourcing. (Kakabadse & Kakabadse, 2000; Tafti M., 2005; Nakatsu and Iacovou, 2009).
Outsourcing always results in displaced employees (Belcourt et al, 2006; Power et al, 2004). Basically, there are three options for the employees that previously carried out the outsourced activity: they are either transferred to the outsourcing company, transferred internally to other functions or they are laid off (Belcourt et al, 2006). Probably, most of the employees are not happy with any of those options (Lonsdale & Cox, 1998).

Furthermore, Low morale may affect productivity of the company and it can lead skilled workers seeking a new job (Ibid). Outsourcing always incorporates changes. Most people have a natural tendency to resist changes (Kumar & Eichhoff, 2005). Consequently, in outsourcing, managers will always encounter a wall of resistance (Ibid). Fortunately, most of these problems can be avoided with proper management (Lonsdale & Cox, 1998).

Conclusion

Many benefits and risks of outsourcing have been identified. The following outsourcing decision framework was hence developed, Figure (1). The framework for SMEs' outsourcing decision making , based on the factors found from this study, is including four factors affect outsourcing decision which are outsourcing benefits, outsourcing risks, core competencies and vendors (suppliers).

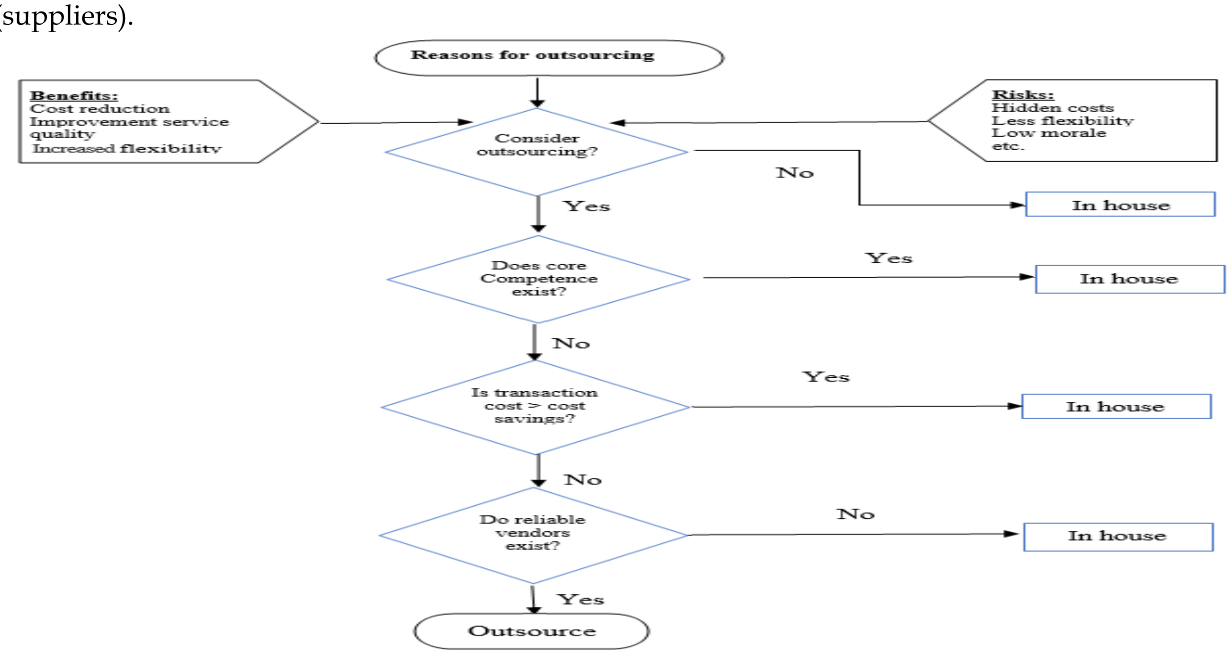

Figure 1: Framework for making outsourcing decisions

Source: Adapted from Ghani and Rana (2005), Tibor and Oya (2006)

References

Abdullah, L.M. and Verner, J.M. (2012). "Analysis and application of an outsourcing risk framework.", The Journal of Systems and Software. Vol. 85, No. 8, pp. 1930-1952.

Al-Gharbi, K.; Al-Kindi, A. and Al-Salti, Z., (2009), "IT/IS Outsourcing from Omani Organizations 'Perspective: Motivations and Reservations". International Journal of Management Innovations Systems, No.1

Alner, M. (2001). "The effects of Outsourcing in Information Security". Information Systems Security. Vol. 10, No.2, pp. 35-43.

Amel G. and Hayat B., (2016), "Outsourcing marketing activities for a successful small and medium sized enterprises", Maghreb Review of Economic and Management, Vol 3 - No 1, pp. 95-102.

Aron R., Clemons E., Reddi S., (2005), "Just right outsourcing: Understanding and managing risk", Journal of management information systems, Fall 2005, Vol. 22, No. 2, pp 37-55.

Bahli, B. and Rivard, S. (2002), "A Validation of Measures Associated with the risk Factors in Information Technology Outsourcing". Proceedings of the 36th Hawaii International Conference on Systems Sciences (HICSS'03).

Bahli, B. and Rivard, S. (2005). "Validating Measures of Information Technology Outsourcing RisksFactors." Omega. Vol. 33, No.2, pp.175-187

Baldwing, LP; Irani, Z. and Love, P. (2001). "Outsourcing Information Systems: Drawing Lessons from a Banking Case Study." European Journal of Information Systems. Vol. 10, No.1, pp. 15-24.

Barthélemy, J. (2003), "The seven deadly sins of outsourcing", Academy of Management Executive, Vol. 17, *pp*. 87–98.

Belcourt M. (2006), "Outsourcing – The benefits and the risks. Science direct", Human resource management review, No. 16, pp 269-279.

Casale, F.J., (1996), "Introduction to outsourcing". The Outsourcing Institute 1. Page(s):332–337

Chen S-F. S. (2004). "American firms´ suicidal outsourcing. Scripps Howard News Service", Sunday, December 19, 2004.

Cox, M.; Roberts, M. and Walton, J. (2011). "Motivations for IT Outsourcing in Public Sector Local Government." Proceedings of the 2nd International Conference on Information Management and Evaluation. Toronto. Canada, pp. 141-149.

Dean Elmuti, (2006), "The Perceived Impact of Outsourcing on Organizational Performance", Mid-American Journal of Business, Vol. 18, No. 2, pp 33-41

Fan, Z-P.; Suo, W-L. and Feng, B. (2012). "Identifying risks factors of IT outsourcing using interdependent information: An extended DEMATEL method." Expert Systems with Applications. 39 (3), pp. 3832- 3840.

Frayer, J.K., Scannell, J.D., and Thomas, V. (2000). "An Empirical Investigation of Global Sourcing Strategy Effectiveness". Journal of Supply Chain Management, Vol.36, No.2, pp.29-38.

Ganguly, P., 1985, 'UK Small Business Statistics and International Comparisons', Harper London and Row

Ghani and Rana, (2005), "The Economics of Outsourcing in a De-Integrating Industry", Centre for Management and Economic Research (CMER), CMER working paper No. 05-43

Gilley, K.M. *and* Rasheed, A. (2000). "Making more by doing less: an analysis of outsourcing and its effects on firm performance", Journal of Management, Vol.26, *pp*. 763–790.

Greer, C.R., S.A. Youngblood, and D.A. Gary. (1999), "Human resource management outsourcing: The make or buy decision", Academy of Management Executive, Vol.13, No.3, pp 85-96.

Harland, Ch.; Knight, L.; Lamming, R. and Walker, H. (2005). "Outsourcing: assessing the risks and benefits for organizations, sectors and nations." International Journal of Operations & Production Management. Vol.25, No.9, pp. 831-850.

Hayes, D.C.; Hunton, J.E. and Reck, J.J. (2000). "Information Systems Outsourcing Announcements: Investigating the Impact on the Market Value of Contract-Granting Firms." Journal of Information Systems. Vol.14, No. 2, pp. 109-125.

Kakabadse, N. and Kakabadse, A. (2000), "Critical review –outsourcing: a paradigm shift", The Journal of Management Development, Vol. 19 No. 8, pp. 670-728.

Kotabe, M., J. Murray, and R. Javalagi, (1998), "Global sourcing of service and market performance: Au empirical investigation", Journal of International Marketing, Vol.6, No. 4, pp 10-13.

Krizner, K. (2000), "New strategies let companies concentrate on their core competencies", Frontline Solutions, Vol. 1 No. 4, pp. 30-33

Kumar S., Eickhoff J. (2005), "Outsourcing: When and how should it be made", Information knowledge systems management, Vol. 5, No. 5, pp 245-259.

Lacity M *et al.*, (2017), "Review of 23 Years of Empirical Research on Information Technology Outsourcing Decisions and Outcomes", Hawaii International Conference on System Sciences.

Leavy B. (2004). "Outsourcing strategies: Opportunities and risks", Strategy & Leadership. Vol. 32, No. 6, pp. 20-25.

Lonsdale C., Cox A. (1998), 'Outsourcing: A business guide to risk management tools and techniques', Earls gate Press.

Nakatsu, R.T. and Iacovou, Ch.L. (2009). "A comparative study of important risks factors involved in offshore and domestic outsourcing of software development projects: A two-panel Delphi study", Information and Management, Vol. 46 No.1, pp. 57-68.

Narender Ramarapu; Parzinger, Monica J. (1997), "Issues in foreign outsourcing. Information Systems Management", Vol. 14, No. 2 Pp. 27-32.

Ngwenyama, O.K. and Sullivan, W.E. (2007). "Outsourcing Contracts as Instruments of Risks Management. Insights from two Successful Public Contracts", Journal of Enterprise Information Management. Vol.20, No.6, pp. 615-640.

Quelin B., Duhamel F. (2003). "Bringing together strategic outsourcing and corporate strategy: Outsourcing motives and risks", European management journal, Vol. 21, No. 5, pp. 647-661.

Quinn J. B., Hilmer G. (1995). "Make versus buy, strategic outsourcing". The McKinsey quartely. No 1.

Roberts, P. (2001), "Corporate competence in FM: current problems and issues", Facilities, Vol. 19 Nos 7-8, pp. 269-75.

Smadi Z. and Al- Jawazneh B., (2016), "The Benefits of the Outsourcing Strategy as Perceived by the Industrial Companies in Jordan", Global Journal of Management and Business Research: An Administration and Management Vol. 16. No. 9.

Steensma, K.R. and K.G. Corley. (2000), "On the performance of technology-sourcing partnerships: The interaction between partner interdependence and technology attributes", Academy of Management Journal, Vol.43, No.6, pp 1045-1067.

Tafti M., (2005), "Risks factors associated with offshore IT outsourcing", Industrial Management & Data Systems, Vol. 105, No. 5, pp. 549-560.

Tibor and Oya, (2006), "Outsourcing decision support: a survey of benefits, risks, and decision factors", Supply Chain Management: An International Journal, Vol.11, No.6, pp 467-482

Wright, L. (2001), "Market viewpoint: outsourcing is a no-claims bonus", Insurance Brokers' Monthly & Insurance Adviser, Vol. 51 No. 1, pp. 12-15.

Cryptocurrency dilemma for underserved countries

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Keywords
Cryptocurrency, Blockchain, IT strategy for Underserved Countries, Economic Development.

Abstract

With the recent Bitcoin proliferation, there is a growing interest among international development circles to consider cryptocurrency technology as a tool of financial inclusion that can make a positive impact on underserved countries. Unfortunately, the policy makers of those countries face the dilemma - to adopt, or not to adopt the cryptocurrency technology. For instance, adopting cryptocurrency technology means an opportunity for them to attract external investments to build the long-sought digital infrastructure that would empower them in the global marketplace. However, it also means allowing the solution standards developed by Western tech gurus or companies without much filtering or localization, potentially resulting in the techno-colonialism that is as dangerous as political imperialism.

In this paper, we present a case study on the outcomes of South Korea's policy responses to a similar dilemma it faced during her financial crisis in 1997, which resulted in adopting the Internet and building IT infrastructure around it.

Using big data analytics for analyzing SDG

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Keywords
Big Data, Big Data Analytics, SDG, SDG Analysis

Abstract

The coincidence of data revolution with the move from MDG to SDG was absolutely necessary as SDG demanded not only more and better data, but also new ways of working with and managing data so that the progress towards SDG could be effectively monitored. UN is playing a very much active role on ensuring peace and prosperity of the planet through aligning all the global leaders, subsequently formulating SDGs for transforming the world to a better place for living and also they are very much active in monitoring the progress of SDGs through its different wings, like UNSD, UNECE, UNESCAP, ITU, Global Pulse, UNDESA; utilizing the enormous strength of data revolution, especially utilizing the analytics of Big data.

In August 2014, the then UN Secretary General, Ban Ki-moon, constituted an Independent Expert Advisory Group, named 'UN Data Revolution Group' with the aim of making concrete recommendations on bringing about a 'data revolution for sustainable development'. This Group, in their Report, highlighted two global challenges to be addressed: i) The Challenge of Invisibility and ii) The Challenge of Inequality.

Big data analytics is the perfect answer to address these challenging questions. Big Data is extremely large data sets, 1 petabyte or more, often unstructured, that may be analyzed computationally to reveal patterns trends and associations. And to analyze such a huge data we need advanced analytic techniques in association with systems, platforms, programming languages and tools. Data scientist follows one of these following five analytic paths: i) Prescriptive Analytics, ii) Diagnostic Analytics, iii) Descriptive Analytics, iv) Predictive Analytics, v) Outcome Analytics.

However, everything is not that smooth. There are limitations with Big Data analytics itself, the analytic platform, data sources, storage, knowledge base, coordination and management. There are limitations with Intra and inter-national cooperation, ownership and drive.

Information technology governanc effectiveness in organizations

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Keywords
Information Technology (IT) Governance, Organization Performance, Enterprise Risk Management, IT/ Business Strategic Alignment, Framework of IT Governance.

Abstract
The purpose of this article is to explore the relevance of information technology (IT) governance in the organizations regarding the relationship between; the information technology governance effectiveness and organization performance, the information technology governance and enterprise risk management, and the relationship between the information technology governance and strategic alignment. Thus, this paper will review recent studies of related dimensions. Several studies reveal that organizations which have adopted an effective IT governance framework; improved their organizational performance, profit, risk management, also improved IT Governance maturity and were capable of strategically aligns IT and business.

Introduction

Information technology (IT) is an integral part and fundamental to support, sustain, and grow a business. IT governance calls for the definition and implementation of formal practices at the highest level in the organization involving structures, processes and relational mechanisms for the creation of business value from IT investments. It is cited as a strategic issue that requires commitment at a strategic level. According to Simonsson and Johnson (2006). Recent studies have shown the impact of ITG on. Therefore, IT governance has several implications that have to be investigated. This paper will investigate the implications through navigating four sections. The first one is presenting the IT governance effectiveness and organization performance. The second section is displaying the relationship between Information Technology Governance (IT) and Enterprise Risk Management. The third section is a review of Information Technology (IT) Governance and Business/IT Strategic Alignment. Finally, a conclusion will be figured out of the study review.

Information Technology (IT) Governance Effectiveness and Organization Performance

The main objective of IT governance is to manage IT operations, ensuring performance is maximized and benefits are attained, there by accomplishing the advantage of IT investment opportunities. The analysis was done using Exploratory and Confirmatory factor analyses using EQS 6.3 and SPSS 2. Data were collected via a questionnaire distributed to (40) private organizations in the Middle East, comprising a sample size of 179 respondents of strategic and tactical-level managers, Considering the variables information technology governance and performance. The result showed that there is an awareness of the nature of the relationship that IT governance has with its various factors as suggested by the COBIT framework: business/IT alignment, IT value delivery, IT resource management, IT risk management and IT performance. IT risks management is the leading indicator in explaining the IT governance application behavior. IT business alignment" has the least significant impact on the study sample *(Alkhaldi et al., 2017)*

A development and verification of a causal relationship model had been constructed of the influence of IT Governance Processes on the benefits received by companies. Develop and verify a causal relationship model of the influence of ITG Processes on the benefits received by companies.

The analysis was done using Structural Equation Modeling (SEM). Data were collected via sample of (497) chief ITG officers working in (50) companies with registered capital of more than 100 million baht in Thailand. The result showed that The model was consistent with the empirical data, with a chi-square value of 190.85, a degree of freedom of 166, and a p-value of 0.91.This pointed out that hypotheses of the model could be explained a structure model of ITG, which influence wealth of the companies up to 80 percent (R2 = 80).It is reasonable to imply that ITG influences the benefits obtained by Thai public companies in terms of high capacity of employees, good internal processes, customer satisfaction, loyalty, and stable finances (Chambers & Waitoolkiat, 2016)

Also, an explanatory model of the effects of IT governance mechanisms on IT and organizational performance of public organizations had been fitted. Analysis was done using Structural Equation Model (SEM). Data was collected from a survey conducted in 146 Brazilian public organizations. Considering the ITG: (Structure, Processes, and relational mechanisms) and Organization Performance variables the results showed that IT performance is positively correlated with organizational performance, Relational mechanisms between IT and a business are determinant factors for the performance of IT, and also positively correlated with organizational performance, and decision structure and process maturity are not significantly correlated with IT performance *(Amhis et al., 2016).*

Moreover, two empirical studies that explore key factors had been conducted to help translate information technology governance by the board of directors into organizational performance. The analysis was done using Structural Equation Modeling facilities of AMOS 24. The data for this study was collected through two samples; for study (1): sample of 472 directors who attended general corporate director governance training programs in Canada. For study (2): sample of 682 directors who attended general corporate director governance training programs in Canada. Considering the variables information technology governance effectiveness and organizational performance, it was found that although people agree that the board of directors is an important group in organizational hierarchy, it is easy to forget its roles in achieving IT–business strategic alignment and driving IT-related performance gains. These studies open up the black box between board-level information technology governance and organizational performance (Turel & Bechara, 2017).

Identifying an ITG mechanisms' baseline for universities was essential. The analysis was done using NVIVO software to transcript and analyzes the qualitative data. Data were collected via semi structured interviews in six universities, two universities in three different countries; Brazil, Portugal and the Nether lands, considering ITG Mechanisms: (Structure, Processes, and relational mechanisms) and performance variables, it was found that IT strategy committee is perceived as essential to define the strategy and business alignment. IT governance structure, important for higher education as it is in the other industries, reveals that universities also desire to have an ITG structure stabilized for decision making. Business/IT relationship managers, is also indicated as other structural mechanisms to compose the baseline. The main role of this mechanism is to make the bridge between the business and IT for a better understanding among stakeholders. Relational mechanisms, it is seen as crucial and also with good effectiveness and ease of implementation. That the processes mechanisms are the most recommended for all industries *(Bianchi; souse et al., 2017)*

In addition, understanding about the link between ITG and firm performance becomes critical. The analysis was done using multiple linear regressions. The data for this study was collected through sample of 150 participants for (34) firms. Considering the ITG: (Structure, Processes, and relational mechanisms), ITG effectiveness, and Firm performance, the study provided an overview of the status of knowledge in the domain of ITG research, presented five key impact variables which are important in the relationship of ITG and firm performance, and set the basis for future studies on the ITG-firm performance relationship (Vejseli & Rossmann, 2017).

Reporting the initial work involved in developing a construct named IT investment governance (ITIG), it was found that it could be used to measure organizations' capability to govern their IT investments. This analysis was done using Exploratory Factor Analysis (EFA) and T-tests. Data was collected using a sample of (233) top management officers and other senior IT management members within Australian for-profit organizations, Concerning IT governance, and ITG effectiveness. It was found that this paper contributes to the existing body of knowledge about the ITIG construct and ultimately to business organizations by providing: a consistent, research-derived conceptual definition for ITIG, an empirically reliable and valid measure for ITIG as an resource for sustainable competitive advantage, Potential guidance for top management in the implementation of effective ITIG (*Ali & Robb, 2015)*

Further, broadening and strengthening the holistic understanding of IT governance effectiveness, a specific examination why IT governance systems often fail to produce appropriate or desired IT and organizational behaviors. The analysis was done using termed an inside-out model of technology management. Data is gathered through the in-depth study of two case organizations. Forty-seven interviews were conducted across both organizations (25 in City A, 20 in City B and two initial sponsor discussions). Concerning ITG, IT governance effectiveness, and performance variables.it was found that the conceptualization of IT mechanisms in terms of organizational routines privileges the notion that IT governance is first and foremost about supporting and guiding collective action and not simply about designing and implementing formal IT governance artifacts (Brown & Dillard, 2015).

Measuring information technology governance in financial institutions is not that easy matter. The data for the study was collected through a sample consisted of (60) professionals from financial institutions operating in Brazil. It was found that the relevance given to the use of IT for decision making, flexibility, growth, and resource management were mostly considered to be very high. IT's influence on final performance did not reach its maximum performance, a factor that is possible to identify by a score of approximately 79.6. The IT Governance concept is still new and that its practice and theoretic basis are still being developed. In this respect, the present paper is relevant because its results can help understand how this administrative practice is being developed in Brazil (Barbosa et al., 2014).

In addition, a measurement instrument for IT governance practices was developed, and based on this instrument. The analysis was done using KMO index. Data for this study was collected through a sample of 652 respondents from Brazilian companies, including public, private, and mixed capital companies. 470 companies have private capital, 146 were public, and 36 have mixed (public and private) capital. Considering, Company performance, IT performance, Structures for IT governance, Processes, Relational mechanisms, and ITG effectiveness variables, It was found that business knowledge and relational mechanisms are central components to superior IT and business performance *(Desouza-Bermajo et al., 2014)*

Besides, a study identifies the impact of corporate governance on determining factors of performance in banking sector of Pakistan. The analysis was done using chi-square goodness-of-fit test. The data for this study was collected from commercial banks of Pakistan. Considering the ITG, ITG effectiveness, and Non-Performance variables, it was found that There is strong association of corporate governance and determinants of banking sector performance, banks with good corporate governance show better performance as compared to banks having less corporate governance, Pakistan's banking sector is well established. Banks have good corporate governance to improve their performance and maintain the interest of shareholders, and all banks are performing well by maintaining their profitability, liquidity and continuously growing *(Inam & Mokhtar, 2014).*

The impact of IT governance effectiveness on IT Performance Management was studied. The analysis was done using Exploratory Factor Analysis (EFA) and Structural Equation Modeling (SEM). The data for this study was collected via sample from 87 CIOs of large Brazilian companies.

Considering the IT governance effectiveness, IT governance, and performance management variables, it was found that the level of IT strategic alignment has a significant and positive effect on IT governance effectiveness, The presence of structure, process and relational mechanisms have a significant and positive impact on perceptions of IT alignment, That the level of IT value delivery has a significant and positive effect on IT governance effectiveness, and The presence of different IT governance mechanisms have significant and positive impacts on perceptions of IT resource management, being the process mechanisms (Lunard et al., 2014)

Some important reasons were identified about why IT audits needs to be done on Bank. Through questionnaire data were collected directly from (65) top and middle level management (Board of Directors, head of division, and chief of staff) in Bank Indonesia. Considering the ITG Structure, and Financial enterprise performance as variables, it was found that the maturity level average was defined, IT management performance has developed until a phase where standard procedure and documentation process has taken place because of formal training for the users, many shortages could not be detected maximally by the management although there was a policy created previously (Ratih & Setyarini, 2014).

Accordingly, the strategic action of IT governance was provided for organizations in universities in Thailand. The analysis was done using t-test. Data was collected via collected survey data from 64 IT executives from 117 universities in Thailand. Considering ITG, ITG effectiveness, and Organization Performance variables, it was found that in order to decrease capital risk and failure of trial and error, universities should primarily analyze their current situations of IT governance performance before performing any other actions on IT governance. Thai universities can apply the attributes that fall into the keep up the good work as the baseline indicators for driving IT governance in their universities *(Jairak, et al., 2014).*

From the professional's perception, a study was conducted to define the most relevant criteria for measuring ITG effectiveness based on IT. The analysis was done using Thematic content analysis. Data was collected using a sample of involved professionals linked to 45 companies: 11 Chief Information Officers (CIOs), 4 IT managers, 13 IT coordinators, 15 governance analysts and 2 IT researchers. Concerning the IT governance effectiveness and Performance. I was found that there is a set of nine significant criteria for monitoring ITG effectiveness; Quality of IT services, Economic and financial, Physical and logical IT infrastructure, information security, Strategic alignment Stakeholder satisfaction, Training and Knowledge, Risk management, Internal and external compliance. The results also include the analysis the relationships perceived by these professionals about which were the most suitable indicators for measuring ITG effectiveness *(Wiedenhoft, et al., 2014)*

Attempting to gain insight into IT governance attitudes, perceptions, and to reject or fail to reject some initial hypotheses concerning such IT governance attitudes, perceptions, and knowledge levels within this organization and their possible impacts. The analysis was done using chi-square goodness-of-fit test. Data was collected via a sample of 51 respondents who were randomly recruited from more than 10 federal IT contractors. Considering ITG effectiveness and Performance variables, it was found that the exact role and function of IT governance was not well understood and often confused with the more tactical role of IT management. The confusion about the functions and roles of IT governance had its origins in the limited number of opportunities that personnel in these organizations had to learn about IT governance during their careers *(Martin, 2013)*

The main objective of Tabach was to investigate the impact and role of implementing information technology (IT) governance practices on the business value driven from IT. The analysis was done using Delphi Method Descriptive Analysis on SPSS. 57 matched surveys were collected from North America and the Middle East. Considering the following variables IT governance, ITG effectiveness, and Performance, it was found that significant links were found between the different configurations and the non-financial performance of a business unit, and the configurations with higher maturity showed stronger correlation and variance with the different constructs of the Business Unit Non-financial Performance. No significant impact on the business unit financial performance was found, and Implementing different sets of IT governance practices within organizations can result in different levels of performance at the business unit level in terms of business processes, decision making and legal and ethical compliance *(Tabach, 2013).*

Aaij et al (2013) examine the relationship between governance structures, practices and the performance of the university sector in Australia. The analysis was done using both descriptive statistics factor and correlation analyses and analysis of variance and regression. Data was collected through a sample of 37 out of the 39 publicly-funded universities in Australia between 2005 and 2007. Concerning the variables ITG, IT governance structures, and Performance, the study provides evidence in support of a positive relationship between establishment of council committees and overall performance, and strong positive correlations with research and financial performance. The agency theory argument that independent committees influence better performance through close monitoring. The study did not find evidence of a statistically significant relationship between transparency in reporting and performance during the period under study. The positive relationship between size of the university and the research performance and the negative relationship between size and teaching suggests that bigger universities are more research oriented while the smaller universities highly emphasize teaching quality *(Aaij, et al., 2013).*

Chinese culture influences the performance ITG capabilities in organizations and how this influence is manifested. The analysis was done using Descriptive Analysis. Data was collected using Chinese listed companies the dominating shareholders. Considering the IT governance capabilities, ITG effectiveness, and Chinese culture influences, and ITG performance variables, it was found that to improve the ITG performance the study suggests a series of conditions in which conflicts between cultural influences and ITG capabilities can be mitigated *(Zhong et al., 2012)*

An investigation was conducted of IT projects in South African organizations to determine whether generally accepted governance principles were applied in the project domain. The analysis was done using COBIT. Data was collected using 16 semi-structured interviews were conducted to understand current practice from the banking environment, mobile telecommunications environment, agricultural as well as petrochemical industry, Considering the following variables TG effectiveness and Performance. It was found that the majority of the organizations do have corporate governance in place but that they do not comply with IT and IT project governance. It is important that organizations embrace IT governance in the form of COBIT, if not for the sake of good governance, then at least to improve the quality of the IT-related investments and therefore enhance profits (Marnewick & Labuschagne, 2011)

A theory-based framework that proposes and explains the positive impact of IT governance on the business performance of the firm was introduced. The analysis was done using chi-square. Data was collected via eleven exploratory case studies with senior IT executives of major multinational corporations. Considering ITG structure, ITG effectiveness, and Business Performance variables, it was found that IT governance is positively related to business performance through the mediators IT relatedness and business process relatedness. IT relatedness and business process relatedness do not only create value independently, but that they rather are interdependent and mutually reinforcing, therefore creating additional value if pursued concurrently *(Lazic et al., 2011).*

Investigating Jordanian public sector readiness to implement IT Governance concepts, in order to enhance Performance in Jordanian public sector organizations. The analysis was done using SPSS 15 and SmartPLS 2.0 and Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy. Data was collected via sample of 26 Jordanian in public sector. Considering the IT governance and performance variables, it was found that, there is an existence of the relationship between IT Governance and its Pillars: accountability, transparency, participation, and predictability. There is a relationship between IT Governance and Performance *(Pillars, 2010).*

Exploring the importance, measurement, and the usage of the of ITG model in evaluating the ITG performance in Saudi organizations. The collected data has been analyzed using (SPSS) version 14 and non-parametric tests (Kruskal-Wallis tests). Data was collected via different types of Saudi organizations (Manufacturing, merchandising, insurance, oil and gas, and service companies, health care organizations, government units, banks, and others) in (5) Saudi cities: Riyadh, Jeddah, Dhahran, Dammam, and Al-Khobar. The results showed that Saudi organizations should achieve better governance of their IT in order to ensure that an organization's IT strategy is aligned with and supports the overall organization's strategy and IT supports the organization's ability to exploit opportunities and maximize benefits *(Abu-Musa, 2007).*

Relationship between Information Technology Governance (IT) and Enterprise Risk Management

This study sought to explore that IT governance effectiveness is correlated with project portfolio control, risk management, and business/IT alignment. The collected data has been analyzed using multiple linear regressions. Data was collected via sample of 305 participant for-profit organizations in the United States. Considering the ITG effectiveness, Project portfolio control, risk management, and Performance variables, it was found that study helps shed light on the relationship between effective IT governance and project portfolio control as well as provides support to the existing literature on the relationship between effective IT governance and risk management *(Parry, 2014).*

The purpose of this paper is to illustrate how information technology governance (ITG) supports the process of enterprise risk management (ERM).the collected data has been analyzed using Structural Equation Modeling (SEM).data was collected via sample from 35 of companies. Considering ITG, ITG effectiveness variables, it was found that adopting an IT governance framework is an opportunity for companies and a new way to implement an internal control system that can result in certain advantages for the entire organization. The ERM COBIT integrated approach provides management with one of the more evolved tools in terms of compliance; in general .An effective improvement in terms of company management is not always achieved when adopting an IT governance framework. The effectiveness of the implementation of a framework, whether or not related to IT governance or to the internal control and risk management system, depends on the underlying reasons of its introduction *(Rubin, 2014).*

Information Technology (IT) Governance and Business/IT Strategic Alignment

This research aims to identify specific management practices that can help to improve the process of IS/business alignment and the design of ITG architecture that supports those processes. The research was done using Nvivo 8.0. Data was collected using large leading international food and beverage company, it was found that at operational and tactical levels, improving the coordination of the IT investment management process and enabling structures that strengthen the connection of budgetary controls are core structural capabilities that can positively improve the process of IS/business alignment and impact significantly the design of ITG architectures. Operational positions evidenced that the IT understanding of business influences their tactical relational, process and structure capabilities *(Orozco, et al., 2015)*

The purpose of this quantitative correlation study was to test the extent to which IT structure and federal IT governance structure within the organization. The analysis was done using statistical correlation including Kruskal-Wallis one-way analysis of variance (ANOVA), Mann-Whitney U test and logistics regression the sampling frame were about 3000 business professionals from medium and large sized companies in the United States of which 138 responded in the time allotted for data collection. Concerning IT governance effectiveness, Performance, ITG Structure, and Performance, it was found that there is no significant relationship between IT strategic alignment and levels of IT governance structure and federal IT governance structure within the organization. *(Gordon, 2013)*

In order to better understand the impact of IT governance, this dissertation examines the role of governance mechanisms in two areas of IS research: strategic alignment and IT outsourcing. Analysis was done using correlation matrix, The MASEM analysis, and Amos Graphics to run the model fit statistics. Data was collected via sample of 36 Executive MBA students with business and IT backgrounds attending a large Taiwanese university. It was found that the highly correlated relationship between trust and knowledge sharing is actually contributed by a strong mediator: mutual commitment. In countries with high levels of uncertainty avoidance such as South Korea, people feel uncomfortable when faced with challenges or uncertain situations. Therefore, without mutual commitment to a long-term relationship, active knowledge sharing behaviors would not occur even when the trusting relationship has already been established between the contracting parties. Relational exchange behaviors such as partnership maintaining and knowledge sharing were found to be important intervening variables that mediate the impact of ongoing trust and mutual commitment on IT outsourcing success, and they equally contribute to the success of IT outsourcing. Trust is a necessary but not sufficient determinant for relational exchange behaviors to occur. Mutual commitment is an indispensable component for successful IT outsourcing governance *(Wu et al., 2013)*

Main objective of this paper was to stress the importance of evolving IT Governance activities. Data was collected via sample of selected (100) (CIOs and CEOs) of sample of 5 small banks in Croatia during the period 2008-2010.It was found that explained external and especially national IT Governance regulation framework in the Republic of Croatia, construct the research model upon the strategic IT/Business alignment and IT Governance issues and conducted the research by the series of long-lasting comprehensive in-depth interviews with responsible employees (CIOs) in selected small banks in Croatia. National IT Governance regulatory framework can help in improving IT Governance maturity and strategically align IT and business and confirm our research question. The research might be useful because of fact that similar efforts are very rare (if there are any of them) and there are modest evidences how industry best practices and national regulations are used in the real business environment *(Spremic, 2012)*

The purpose of this quantitative correlational study is to explore the extent to which IT strategic alignment is impacted by IT governance structural elements. The analysis was done using Chi Square tests. Data was collected via a sample came from 4000 business and technology managers and executives of which 300 responded. Considering ITG structure, and ITG effectiveness variables, it was found that there is no correlation between IT strategic alignment and IT governance. There is a positive correlation between IT strategic alignment and IT governance. There is a positive correlation between IT strategic alignment and Centralized IT governance structure. There is a positive correlation between IT strategic alignment and Decentralized IT governance structure. There is a positive correlation between IT strategic alignment and Federal IT governance structure *(Asante, 2010)*

Conclusion

Organizations face convolutions in business given a multitude of challenges such as globalization, knowledge economy, and even disasters. At the same time, organizations are expected to conform to corporate governance best practices. IT governance is a part of corporate governance cited as a means to help organizations to improve the organizational performance in terms of high capacity of employees, good internal processes, customer satisfaction, loyalty also it help organizations to constructs a stable finances, manage risk and protect organization from technology-related losses. The importance of IT governance is evident through the attention it receives from scholars and practitioners. As a result, this paper demonstrates a literature review of several studies that integrates both determinants and impact of IT governance effectiveness in different kind of organizations. It is worth mentioning that the relationships between each determinants (i.e. organizational performance, enterprise risk management, IT/business strategic alignment) and IT governance is significantly positive based on the outcome of the researcher's that mentioned previously in this paper. With insight into these determining factors, organizations further gain an understanding into their impacts on IT governance effectiveness. Consequently, this assists organizations with improvement.

References

Aaij, R., Adeva, B., Adinolfi, M., Adrover, C., Affolder, A., Ajaltouni, Z., Albrecht, J., Alessio, F., Alexander, M., Ali, S. and Alkhazov, G., 2013. Measurement of form-factor-independent observables in the decay B 0→ K* 0 μ+ μ−. *Physical review letters*, *111*(19), p.191801.

Abu-Musa, A.A., Nassar, A.H., Hannoun, A.B. and Usta, I.M., 2007. Effect of the Lebanese civil war on sperm parameters. *Fertility and sterility*, *88*(6), pp.1579-1582.

Alkhaldi, F.M., Hammami, S.M., Kasem, S., Rashed, A. and Alraja, M.N., 2017. Enterprise System as Business Intelligence and Knowledge Capabilities for Enhancing Applications and Practices of IT Governance. *International Journal of Organizational and Collective Intelligence (IJOCI)*, *7*(2), pp.63-77.

Ali, S., Green, P. and Robb, A., 2015. Information technology investment governance: What is it and does it matter?. *International Journal of Accounting Information Systems*, *18*, pp.1-25.

Amhis, Y., Banerjee, S., Ben-Haim, E., Bernlochner, F., Bozek, A., Bozzi, C., Chrząszcz, M., Dingfelder, J., Duell, S., Gersabeck, M. and Gershon, T., 2017. Averages of b-hadron, c-hadron, and $ $\tau $ $ τ-lepton properties as of summer 2016. *The European Physical Journal C*, *77*(12), p.895.

Asante, K.K., 2010. *Information Technology (IT) strategic alignment: A correlational study between the impact of IT governance structures and IT strategic alignment*. Capella University.

Barbosa, S.C.B., Rodello, I.A. and Pádua, S.I.D.D., 2014. Performance measurement of information technology governance in Brazilian financial institutions. *JISTEM-Journal of Information Systems and Technology Management*, *11*(2), pp.397-414.

Chambers, P. and Waitoolkiat, N., 2016. The resilience of monarchised military in Thailand. *Journal of Contemporary Asia*, *46*(3), pp.425-444.

de Souza Bermejo, P.H., Tonelli, A.O., Zambalde, A.L., dos Santos, P.A. and Zuppo, L., 2014. Evaluating IT governance practices and business and IT outcomes: A quantitative exploratory study in Brazilian companies. *Procedia Technology*, *16*, pp.849-857.

de Souse, Y.G., de Medeiros, S.M., de Martino, M.M.F., de Miranda, F.A.N., Ferreira, D.R., de Oliveira, A.D.S., Feitosa, E.E.L.C., Freire, X.A. and Paulino, T.S.C., 2017. Social Representations of Nurses about their Profession: Integrative Review. *Quality in Primary Care*, *25*(3), pp.133-137.

Gordon, D.J., 2013. Between local innovation and global impact: cities, networks, and the governance of climate change. *Canadian Foreign Policy Journal*, *19*(3), pp.288-307.

He, Z., Zhong, C., Su, S., Xu, M., Wu, H. and Cao, Y., 2012. Enhanced power-conversion efficiency in polymer solar cells using an inverted device structure. *Nature Photonics*, *6*(9), p.591.

Inam, H. and Mukhtar, A., 2014. Corporate governance and its impact on performance of banking sector in Pakistan. *International Journal of Information, Business and Management*, *6*(3), pp.106-117.

Jairak, R., Praneetpolgrang, P. and Chirawichitchai, N., 2014. A Roadmap for Establishing Trust Management Strategy in E-Commerce Services Using Quality Based Assessment. *International Journal of Information Engineering and Electronic Business*, *6*(5), p.1.

Lazic, S. and Scott, I.C., 2011. Mef2cb regulates late myocardial cell addition from a second heart field-like population of progenitors in zebrafish. *Developmental biology*, *354*(1), pp.123-133.

Lunardi, G.L., Becker, J.L., Maçada, A.C.G. and Dolci, P.C., 2014. The impact of adopting IT governance on financial performance: An empirical analysis among Brazilian firms. *International Journal of Accounting Information Systems*, *15*(1), pp.66-81.

Marnewick, C. and Labuschagne, L., 2011. An investigation into the governance of information technology projects in South Africa. *International Journal of Project Management*, *29*(6), pp.661-670.

Martin, J.A., Hamilton, B.E., Ventura, S.J., Osterman, M.J. and Mathews, T.J., 2013. Births: final data for 2011.

Orozco, J., Tarhini, A. and Tarhini, T., 2015. A framework of IS/business alignment management practices to improve the design of IT Governance architectures. *International Journal of Business and Management*, *10*(4), p.1.

Parry, V.A., 2014. *The relationship between effective information technology governance and project portfolio control, risk management, and business/information technology alignment in an organization* (Doctoral dissertation, Capella University).

Pillars, R., 2010. Double Walls in a Porous Metal-Organic Framework: Single-Crystal to Single-Crystal, Controlled Uptake and Release of Iodine and Electrical Conductivity Zeng. *Journal of the American Chemical Society*, *132*(8), pp.2561-2563.

Ratih, S. and Setyarini, Y., 2014. Pengaruh Good Corporate Governance (Gcg) Dan Corporate Social Responsibility (Csr) Terhadap Nilai Perusahaan Dengan Kinerja Keuangan Sebagai Variable Intervening Pada Perusahaan Pertambangan Yang Go Public Di Bei. *AKRUAL: Jurnal Akuntansi*, *5*(2), pp.115-132.

Rubin, M.W., 2014. *Courting change: the role of apex courts and court cases in urban governance: a Delhi-Johannesburg comparison* (Doctoral dissertation).

Simonsson, M. and Johnson, P., 2006, June. Defining IT governance-a consolidation of literature. In *The 18th conference on advanced information systems engineering* (Vol. 6).

Spremić, M., 2012. Measuring IT governance performance: A research study on CobiT-based regulation framework usage. *International Journal of Mathematics and Computers in Simulation*, *1*(6), pp.17-25.

Tabach, Y., Billi, A.C., Hayes, G.D., Newman, M.A., Zuk, O., Gabel, H., Kamath, R., Yacoby, K., Chapman, B., Garcia, S.M. and Borowsky, M., 2013. Identification of small RNA pathway genes using patterns of phylogenetic conservation and divergence. *Nature*, *493*(7434), p.694.

Turel, O. and Bechara, A., 2017. Effects of motor impulsivity and sleep quality on swearing, interpersonally deviant and disadvantageous behaviors on online social networking sites. *Personality and Individual Differences*, *108*, pp.91-97.

Vejseli, S. and Rossmann, A., 2017. The Impact of IT Governance on Firm Performance A Literature Review.

Wiedenhöft, G., Mezzomo Luciano, E. and Gregianin Testa, M., 2014. An indicators-based approach to measuring information technology governance effectiveness: A study with Brazilian professionals.

Wu, F., Zhang, F. and Webster, C., 2013. Informality and the development and demolition of urban villages in the Chinese peri-urban area. *Urban Studies*, *50*(10), pp.1919-1934.

Blockchain technology as a disruptor in Finance

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Key words
Bitcoin; Cryptocurrency; Information Technology; Blockchain; FinTech

Abstract

Blockchain Technology has a potential to disrupt many business sectors; the information technology (IT) and financial sectors are the most prevalent to position themselves and benefit other industries. In finance, some institutions view blockchain technology's ability to possibly disrupt several features of currency exchanges, check/wire transfer clearinghouses, and investment banking. However, one significant retailer, Walmart is active in the space of supply chain management in connection with the benefits of blockchain technology. There are discussions that markets are not interconnected enough to support such rapid, decentralized network movement. Therefore, Blockchain Technology mass usage will not happen overnight and may take several years. A similar argument in the early 90's was presented on the World Wide Web, a global data collection of documents and other resources, linked by hyperlinks and URIs, and that the technology for the Internet, a comprehensive system of interconnected computer networks was a far from being mainstream.

The paper will discuss a case study of innovations in Bitcoin technology. Joe Able, Founder of Bitclub Network developed a strategy of bitcoin mining. The Bitclub team has organized investor support to build in Iceland a facility for the mining of bitcoins through blockchain technology. Blockchain Technology innovation allow genuinely decentralized cryptocurrency exchange and achieve superior results from global capital investments.

The mission is to actively promote the adoption of Blockchain Technology for the Mining of Bitcoins with Bitclub Network. The Mining of Bitcoins is an actual process using computer software codes and decentralized networks of computers interconnected worldwide on the Internet. However, it's widely noted that the adoption of blockchain technology is likely to move forward and consortiums are being established to test blockchain technology with an optimistic outlook.

How to become happy - provide students with the skills they need

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Keywords
Happiness, leadership, talent, co-curricular activities

Abstract

As Aristotle said: "Happiness is the meaning and the purpose of life, the whole aim and end of human existence." In modern times, the thing that will bring an individual the most happiness is the ability to be an active member of society by contributing the best that they have to offer. Every person possesses a set of unique gifts and talents but not every person is aware of what they possess. Our task and purpose, as educators, is to help to reveal and hone the gifts and talents that our students possess so that they can become the best members of society that they can be.

The purpose of this article is to identify and share the different ways in which educators are able to assist students in discovering their gifts, talents, and abilities. Things as simple as course assignments, interdisciplinary team projects, and student research can help educators pinpoint the unique skill sets of their students. Co-curricular activities, such as team projects, lectures, contents, and student professional clubs, are particularly good at guiding students in self-discovery through the use of team work and leadership.

When an individual's skill set is properly identified, they can be taught efficiently and practically. With proper guidance everyone should be able to grow their unique talents and optimize their abilities. This will make them more attractive to potential employers and ease their transition into society and ultimately make them happier.

1. Introduction

Getting to know their profession is one of the most important events in a student's life. A student's profession will largely determine their surroundings, values, norms, rules and lifestyle. An enthusiastic specialist will never be left without work.

Two of the specific issues that the 2014 and 2018 Global Risks Reports of the World Economic Forum highlighted were youth unemployment and the weak links between education and work. It was pointed out that the role of higher education is not only to produce graduates with specific skills for the labor market, but to also better society by creating graduates with strong analytical skills "who can engage in informed and thoughtful discussions of values and norms."

Students who are willing to pursue an academic degree want, and deserve, to have a comfortable and challenging learning environment. In order to prepare freshmen for academic success, it is very important to give them proper guidance and steer them in the right direction from the beginning. The first step is the most challenging, for both students and professors. Professors' attitudes are crucial to students' self esteem, particularly in their early years. When professors provide acceptance and help, students receive a solid foundation for self confidence. It is important for professors to recognize their students' accomplishments and provide positive reinforcement.

Professors endeavor to provide their students with a profound knowledge of the subject matter and to furnish them with the tools and methods that will help them develop their professional expertise in their chosen field. We feel that exposing students to the current methods and tools used in their discipline, be they ideas, hardware, or software, will give them a competitive edge and their best chance to achieve a successful career in this ever-changing field.

2. Information technology and its role in modern business organizations

Business organizations are typically comprised of a set of main departments such as production, research and development, purchasing, marketing, human resource management, and accounting and finance. Information technology has become a vital and integral part of every business department. Information technology benefits the business world by allowing organizations to work more efficiently and to maximize productivity.

Information technology has implications for every type of business. It is involved in, and enhances, accurate business planning and efficient communication between departments, systematic management and real time monitoring, electronic storage and the protection of records, effective marketing and global sales, security, and automation of day to day operations. By using information technology, departments ensure that the information they are giving to other departments in the organization is reliable and helps improve operational efficiency. Information technology has become the heart of today's businesses and has helped them achieve high levels of online shopping, digital marketing, social networking, digital communication, and cloud computing.

In 2015 the World Economic Forum considered the Fourth Industrial Revolution, and how technological changes can alter our personal, work, and business lives. Emerging technologies are developing rapidly, and rapid technological change is the biggest challenge to global business. "It's clear that keeping up with the rate of digital advancement - for example automation, harnessing big data, emerging technologies and cyber security - will pose significant challenges for future leaders, including our own graduates, and will add a whole new layer of complexity as they try to stay ahead of competitors and innovate. The challenge for business schools is to ensure that their programs prepare graduates to deal with these challenges," said Roland Siegers, CEMS executive director.

Business owners should hire professionals if they are unsure how to implement new technology and how it benefits their businesses specifically. Since computer applications are so widely used, information technology departments have been incorporated into many business organizations. The primary job of universities and professors is to make sure that they are producing information technology professionals who are prepared to deal with the ever changing challenges of this field.

3. Business major job requirements

Business degrees are currently among the most popular and widely known in the world. Training in the field of Business assumes that its graduate possesses deep knowledge of economic theory and awareness of the social responsibility of business. Business majors can apply their skills to organizations in almost any industry to make them function efficiently.

Although there is a common business model, each enterprise has its own business features and its own job requirements for employees of different categories. Within each category there are different levels, which reflect increasing levels of responsibilities and requirements

Requirements for open positions of different categories could differ from "Working knowledge of accounting area preferred (for example, investments and insurance products)" to "Solid computer knowledge, including databases" to "Strong analytical skills and attention to detail to assess the problem and find a solution."

We reviewed a hundred descriptions for open positions in Accounting, Business Administration, Computer Information Systems, Economics and Finance, and Public Administration and identified those requirements that are not major-specific skills (e.g. the ability to balance a balance sheet) but common skills (leadership, team work, initiative, etc…). We believe that an emphasis needs to be placed on improving students' common skills through co-curricular activities to help set our students apart.

	Job Requirements
1	Must have strong work ethics with a positive attitude
2	Must have strong organizational and time management skills
3	Behavioral and leadership competencies
4	A high level of integrity, accuracy, dependability, enthusiasm, and confidentiality
5	Self-starter, self-directed learner, willing to try different approaches
6	Proactive and takes initiative; anticipates needs of the team
7	Professional, with excellent communication and interpersonal skills Ability to work both independently and as part of a team
8	Strong relationship skills, with customers and co-workers Can work well with people at all levels both in and out of the organization.
9	Proven ability to work in a cross-functional and diverse team environment and with all levels of leadership and demonstrated sensitivity to cultural and geographical differences when interacting with others, including international.

Table 1 Business major job requirements

4. How to help students acquire skills that employers want

Extracurricular activities are a wonderful way to help students cultivate, and improve on, varies marketable skills. We will discuss two specific extracurricular activities that help students improve their professional level: student clubs and involvement in the teaching process.

4.1. Co-curricular activities in student clubs

One of the most important student co-curricular activities is a student club. It is imperative that we provide all members of our Business Club at Medgar Evers College an opportunity to gain hands-on and practical experience through many activities, such as:

1. Student conferences
2. Student lectures
3. Programming contest
4. Tutoring
5. Interdisciplinary Projects
6. Un-paid Internships / Volunteer at Medgar Evers College
7. Computer certification workshops / study groups
8. Current & Upcoming Exams (Civil Service Exam Applications)
9. Career Development
10. Center for Entrepreneurship + Innovation

Career oriented, open minded individuals are necessary for The Business Club to be successful and beneficial to all. Each new member is provided with a skills development questionnaire to help us better understand their abilities and interests. The questionnaire is used to asses a member's needs and offer information, materials and assistance to help them achieve those skills. We will raise awareness about the benefits of obtaining a library card and encourage all members to apply for the New York Public Library or the Brooklyn Library. Members will utilize free resources such as free technology courses, and free self-paced courses such as lynda.com as long as their schedules permit. We are strong supporters of gaining knowledge and we will request all members to commit to reading at least one, career oriented, leadership self-help book each month. In addition, our members will actively participate in team oriented interdisciplinary activities and will develop their skills through volunteer and internships opportunities at CUNY, Medgar Evers College.

The Business Club will not only give all members the chance to bridge the gap between the theoretical knowledge they have gained from their completed courses and the practical skills employers look for but will also allow members to cultivate common skills that the classroom setting cannot . Students will be able to tell potential employers about the leadership, teamwork, communication, and interpersonal skills that they acquired and mastered through the Business Club. Although career opportunities are extremely competitive, it is important that our members stand out from their competition and become enthusiastic and confident in their careers post-graduation.

4.2. Developing teaching and learning materials - student approach

Teaching in this day and age has many difficulties, specifically within the field of information technology, ranging from generational gaps to the lack of resources in order to facilitate a proper learning environment. Through experience we have seen that certain textbooks, and their corresponding lab activities, are difficult to follow. Introductory textbooks seem to start at a higher level, and are more advanced in nature, than what is suitable for an introductory course. These textbooks cater to students who have previous experience from high school or work and/or internships. But for the majority of students in introductory courses, who have no prior knowledge or experience of the topic, these textbooks cause a lot of struggle and confusion. The overly advanced nature of the books force students to ask a lot more questions than a book of the proper level would, causing a significant slowdown of the class as a whole.

In order to mitigate this, the text books could be supplemented with online resources, preferably official sources or ones that have been reviewed in order to get the best results. Professors and students who have already taken the course could work together to create online resources, guides, and tutorials. This would not only help future students in the learning process, but it would also help form stronger bonds between faculty and students. These collaborative efforts would help close the generational gap between students and professors. Professors would gain a stronger insight into the topics and areas in which students have the most difficulties in and be able to address them in a targeted manner for future students. This could even go as far as Medgar Evers College providing web pages that offer these utilities, whether they are accessible to the public or only to our college students. These will allow students to express why they do not understand portions of the textbook while allowing the ones that do to give insight on how to create instructions. Having these two ways of discovering the end product, the professors' way, and the students' way, will allow students to choose which one makes more sense to them and is easier for them to follow-allowing them to learn more efficiently.

Some problems that may arise when trying to integrate students into the process could be the level of engagement that students have and the amount of effort they're willing to put in. Students might try to take short cuts to get to the end point without actually understanding the steps that are required to get there. This can be mitigated if the reading material is more engaging, like an interactive website or short and concise tutorials instead of the traditional daunting task that reading through text book chapters brings.

To summarize, the constraints of using just a text book are numerous and not having adequate resources available is the biggest stumbling block to learning within the required courses, but these problems can be solved by the involvement of students within the learning process and the addition of regulated external materials, or specifically created resources to assist in a student's endeavors.

5. Summary

There are a number of different teaching methods available. Students learn material in different ways and at different paces. It is important to teach students how to independently evaluate and assess their own work. Doing so helps students avoid the constant sense of confusion that comes from relying exclusively on the estimation of others.

The learning process is most effective when it is supplemented with a carefully thought-out program of classroom instruction and extracurricular student activities.

To encourage student activity outside of the classroom, we have to create and offer extracurricular student activities that include membership and participation in student professional societies and clubs such as the ACM student Chapter, Programming Club, Business Club, Computer Programmers' Consortium, and Theme Houses. We can also encourage and organize students to participate and compete in contests such as the Greater New York Regional Competition of the ACM International Collegiate Programming Contests as well as college-wide programming contests. All such co-curricula student activities help students gain hands-on and practical experience to increase their chances of achieving a successful career.

6. Future Research

Since this study examines the impact of co-curricula activities on a student's chances of getting a job, future research can explore the association between employer requirements and skills obtained from co-curricula activities. Future studies may also extend the given research by examining the results of students' interviews and adjusting co-curricula activities.

References

Organizational departments and functions,
http://www.open.edu/openlearn/money-management/organisations-and-management-accounting/content-section-4

Rapid Technological Change Is The Biggest Threat To Global Business
https://www.forbes.com/sites/nickmorrison/2017/02/09/donald-trump-is-not-the-biggest-threat-to-global-business/

Where are you in your job search? https://www.linkedin.com/comm/jobs/

The Global Risks Report 2018
https://zurich.com/_/media/dbe/corporate/knowledge/docs/the-global-risks-report-2018.pdf?la=en&hash=A6FE2D65AECDD6C0530D676FDF63FC5625759057

The Global Risks Report 2015
http://reports.weforum.org/global-risks-2015/

Navigating the next industrial revolution
https://www.weforum.org/agenda/2015/09/navigating-the-next-industrial-revolution2/

The Global Risks Report 2014
http://www3.weforum.org/docs/WEF_GlobalRisks_Report_2014.pdf

The 10 biggest challenges businesses face today (and need consultants for)
https://www.hiscox.co.uk/business-blog/the-10-biggest-challenges-businesses-face-today-and-need-consultants-for/

The effects of information technology related curriculum based on hybrid style problem-based learning on career decision making self-efficacy of women's University students in Korea

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Keywords
Problem-Based Learning; Career Decision Making Self-Efficacy; Women's University Students; Information Technology related Curriculum

Abstract

The unemployment of university students has been emerging as a significant social issue in South Korea, making it more necessary for students to have the attitude and confidence to explore their future options. This study is to examine whether women's university students are actively committed to making decisions and having confidence in their career choices when applying Problem-Based Learning(PBL) to the Information Technology Curriculum. For the design of this study, two women's universities were selected: group A consisted of 'A University' students subjected to hybrid-style PBL and the group B consisted of 'B University' students subjected to traditional lectures and practices. A Nonequivalent Control Group Pretest-Posttest Design was utilized to analyze the experimental group and the control group with pretest questionnaires at the beginning of a semester and posttest questionnaires at the end of the semester.

From the study results it was confirmed that PBL has effects in improving the Career Decision Making Self-Efficacy of women's university students in terms of confidence in the ability to collect career information, awareness of career objectives, belief in planning & doing and self-assessment for choosing suitable careers for themselves. This study suggests that more problem-based learning curricula need to apply PBL to future information technology related curricula to help students make their own career decisions.

Introduction

The problem of University student unemployment is becoming a social issue in Korea. The Statistical Yearbook (the Korean Educational Development Institute) shows that the employment rate of University students has declined sharply since 2010 as shown in <Table 1>, has not recovered to date in 2016. The issue that University students aged 20-24 years old worried about is shown to be career relating to occupations. The area relating to 'career' represents the highest level of 30% in the student consultation results of the Student Counseling Center of Dong-A University in Korea for the period of 2008 to 2010.

To solve the problem of youth unemployment, the Korean government is implementing various policies. Universities have also been developing and implementing a variety of programs to increase the employment rate of graduates. However, the companies that hope to employ university graduates are in a dilemma, because it is not easy for them to find the good workers. Most of graduates are not ready to work immediately in the field when employed. They need new education and training to achieve productivity in industry. The companies have no money and time to spend for new employers but tend to strongly favor the experienced.

<Table 1> Employment rate of University graduates [Unit : %]

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
*Entire institutions of higher education	74.1	75.4	75.8	76.7	76.4	55	58.6	59.5	59.3	58.6
Technical Universities	83.7	84.2	85.2	85.6	86.5	55.6	60.7	60.8	61.2	61.4
Universities	65	67.3	68	68.9	68.2	51.9	54.5	56.2	55.6	54.8

* includes technical universities, universities, graduate schools, *etc.*

On the other hand, job seekers have the problem that it is not easy to decide what companies would be good to join. University graduates often quit their jobs, the employment which did not come to them easily, without staying for sufficient working periods; one of the biggest reasons is shown to be job dissatisfaction at the companies. Learning how to choose a job that suits them and how to improve their decision-making ability is an essential process for prospective university graduates; and it will be of great help if they can acquire this ability through the university curricula. The employability of university students will be further increased if they explore careers or prepare themselves to be equipped with the necessary knowledge, attitudes and skills to make the right career decisions. Applying Problem-Based Learning (Hereinafter referred to as PBL) to class operation is a part of ongoing efforts. PBL is an educational approach that enables learners to find and learn by themselves in the process of presenting problems derived from lives or jobs in unstructured form. As the problems presented in the study have similarities to the situation that learners will experience, the learners will have more interests and challenges in learning. The role of teachers in PBL is not to simply inject or transfer knowledge, but to guide and help the learners and have them solve problem by themselves. In South Korea, where employment is emerging as a significant social issue, efforts to identify and utilize the problems to be applied to classes in conjunction with employment can be of help to the student's career decisions. That is, when conducting a class as a process for students to solve problems, studying what effects PBL has on career choice and determination of students, especially women's university students, is meaningful as an effort to find a solution for youth unemployment.

The purpose of this study is to examine what effects applying PBL to Information Technology related courses will have on the career decision-making efficacy of women's university students. The experiments applying PBL to them are necessary for more effective use of PBL in the future; the implications to be derived as the results of the studies will be expected to be a vital basis for the development of future curricula.

Theoretical Background

Career Decision-Making Self-Efficacy (CDMSE)

Career decision-making and career preparation acts are affected by cognitive variables like the self-efficacy of each person (Lent et al., 2002). Self-efficacy is a belief in one's ability to organize and carry out a series of acts required to conduct a certain task (Bandura, 1977); career decision-making self-efficacy is a concept related to how much confidence a student has in making a career decision for employment (Vinokur et al., 1991). (Hackett & Betz, 1981) defined career decision-making self-efficacy as an individual's belief in his/her ability to successfully conduct tasks related to career decision-making.

The career decision-making self-efficacy exerts an important influence on the choice of occupation or career path, effective decision-making, continual execution of plans and can be explained as an important variable that determines acts for achievements, career decision-making, and success in career (Luzzo, 1996). Career decision-making self-efficacy was shown to develop social-cognitive skills needed for jobs at employment preparation time and affect the possibility of employment (McArdle et al., 2007). It was confirmed that career decision-making self-efficacy is an important variable in explaining the career choice process (Restbog et al., 2010).; it was commonly shown in studies on career decision-making self-efficacy that students have the tendency to actively perform acts needed to achieve higher self-efficacy concerning career decision-making (Betz et al., 1996; Taylor & Betz, 1983).

Problem-Based Learning (PBL)

PBL is a pedagogical method designed to teach students a process to gain knowledge and experience by seeking solutions and finding answers by themselves through practical applications rather than the educational method of simply delivering knowledge to students through lectures by professors. PBL can thus be said to be a learning method in which learners think about how to solve problems and prepare solutions in collaboration with each other by forming small groups among fellow students and conducting collaborative learning in studying processes (Barrows, 1996). According to studies from 1970 to 1992 analyzing the effects of PBL, students were observed to do self-directed learning in PBL style classes and positive effects were observed in interests, motivation, attitude, class attendance, *etc.* (Vernon & Blake, 1993). PBL began to be introduced in South Korea in the 1990s and since then, related studies, such as comparative studies with traditional lecture-type classes, have begun to appear (Lee, 2013).

Despite the positive study results of PBL in many aspects, PBL has difficulties relating to the application of PBL to real classes. Vernon & Hosokawa conducted a questionnaire survey regarding PBL classes with professors who had participated in PBL classes and with professors who had not (Vernon & Hosokawa, 1996). The results suggested that PBL classes can have a positive effect on creating students' interests & motivation, reasoning abilities, clinical preparation and self-directed learning, but it might not be positive in the aspects of class efficiency, acquisition of basic scientific knowledge, and hours spent. Limitations of the class hours, discomfort of teachers and students unfamiliar with the PBL approach, *etc.*, are obstacles in conducting PBL classes (Torp & Sage, 2002).
PBL is characterized by problems presented to students. Problems should not have a fixed answer and be ill-structured and complex containing situations. Learners will be able to collect information from a variety of sources and conduct discussions among them and prepare presentations on solutions. Though they are not sure of finding correct answers while preparing presentations, they can have experiences the process of exploring best decision-making through information collection, discussions, and the presentation preparation (Stepien & Gallagher, 1993). Professors participate in the discussion process and perform the role of mentor and guide (Barrows, 1996) and facilitate learning and perform the evaluation. The issues that are covered in PBL approximate real-world situations, necessitating an integrated approach to solving them (Delisle, 1997).

While there are some studies stating that PBL has positive effects on problem solving abilities, self-directed learning skills, participation improvement, information technology-related processes, analytical skills, learning ability, communication skills, *etc.* (Shin & You, 2014), there are also other studies showing different results (Hung, 2009). Hung was concerned about the excessive application of PBL without sufficient consideration of theoretical concepts (Hung, 2011). He elucidated that the hybrid class methods combining traditional methods and PBL can be applied easily to students unfamiliar with the PBL.

Barrows & Myers suggested a process of a total of five steps for the class design by PBL; (Class progression, Presentation problems, Stages after problems, Presentation, Conclusion and post-solution issues) (Barrows & Myers, 1993). They designed the classes to proceed in a hybrid format along with the progress of regular teaching curricula and PBL. The hybrid approach refers to the concurrent adoption of both the traditional process of knowledge delivery through lectures by professors and the process of solving problems by students themselves.

It is not easy to develop well-structured problems for PBL, and there are not enough classes to which PBL can be applied. Classes were designed in a hybrid approach is not yet familiar enough to both learners and instructors for the complete conversion of existing class methods to PBL.

Teachers asked learners to investigate either enterprise cases or solutions utilizing information technologies and information needed for job opportunities while providing the necessary knowledge in the curriculum like existing methods through lecturing. The companies investigated should be the ones that learners are willing to work for, and learners were allowed to choose them themselves.

The advantage of a hybrid approach was to make it possible to deliver, test, and objectively grade the necessary knowledge required by the regular curricula of schools. At the same time to make efforts for solving problems and to prepare for the presentation of the results are other advantages

Methods

Study Design and Objects

This study elucidates the effects of a hybrid style class applying PBL on the career decision-making self-efficacy of women's university students. Before starting the study, researchers selected students of B University similar to A university as study objects, who were taking Information Technology related courses. The curriculum that students of A Women's University as the study objects would take was a 'Software Engineering' course, which was designed in a hybrid style class. The curricula that students of B Women's University as comparative objects would take was 'ERP', 'Management and Computer', 'Office Automation (word processor)' courses; it was confirmed that the courses were administered in a computer lab. To verify the existence of a significant difference in career decision-making self-efficacy between the experimental group and the control group, researchers applied a nonequivalent control group pretest-posttest design utilizing pretests and posttests as in <Table 2>.

<Table 2> Pretests and posttests of the experimental group and control group

	Pretests	Applying Problem-Based Learning	Posttests
A Women's University (experimental group)	Career decision-making self-efficacy tests	O	Career decision-making self-efficacy tests
B Women's University (comparison group)	Career decision-making self-efficacy tests		Career decision-making self-efficacy tests

Tools

This study utilized a Career Decision Making Self-Efficacy Scale as a tool for measuring the confidence level of the students in the career decision-making. Taylor & Betz developed a Career Decision-Making Self-Efficacy Scale that could measure the conviction level of individuals to successfully achieve the tasks necessary for determining their careers in general (Taylor & Betz, 1983). This study used the revised version of Lee's adjusted 'The Short Form of Career Decision-Making Self-Efficacy Scale' applied by (Taylor & Betz, 1983) themselves to the situation of South Korea (Lee, 2001). As in <Table 3>, the scale consisted of 5 sub-factors (career information, setting goals, planning, solving problems, self-assessment) and a total of 25 items.

<Table 3> Career Decision-Making Self-Efficacy Scale

Factors	Details	Number of questions
Career information	The confidence that they can find a career in which they are interested and explore conditions required by the career specifically	5
Setting goals	The confidence that they can decide on their academic and career path with confidence and no regret	5
Planning	The self- belief that they can make a plan and do the plan on the higher education or career pathways.	5
Solving	The will that they will be able to cope with obstacles by themselves when	5

problems	facing obstacles on the course.	
Self-assessment	The confidence that they can clearly assess their abilities, values, desires and choose their careers that suit them	5
Total		25

Data Collection and Analysis Methods

This study was conducted for a total of 16 weeks on the students of A Women' University (the experimental group; PBL applied) and the students of B Women' University (the comparison group; PBL not applied). To conduct PBL class simultaneously with lectures and computer labs, each team consisting of 2-3 persons performed assignments for solving problems. The student number of the comparison group was 109, which was divided into 4 classes, where the teaching method consisted of general lectures and practices. To test career decision-making self-efficacy on the students of A Women's University and B Women's University during the same period, the pretests and the posttests were made using the same questionnaire

Evaluation

Homogeneity of Study Objects

Both the experimental group and the control group were derived from women's university students in South Korea. Ages ranged from 19 to 24; grades consisted of 2nd grade and 3rd grade <Table 4>. Students took courses from a Information Technology-related Curriculum ((Software Engineering, ERP, Management and Computer, Office Automation, etc.); classes were conducted in the classrooms where computer training facilities (personal computer units and a desk for the computers, beam projectors, lab software installation, etc.) were offered.

<Table 4> Comparison of homogeneity between the experimental group and the control group

Variables	Experimental group (A)		Control group (B)		Total	
	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
Age	20.91	0.97	20.40	0.94	20.64	0.99
Grades	3.00	0.00	2.68	0.47	2.83	0.38

Validity and Reliability Analysis

For the criterion for the reliability of the details in the questions about problem-solving abilities used in this study the coefficient of Cronbach's Alpha was set to a value greater than 0.7. This was based on the fact that, if the alpha coefficient is above 0.7 in the analysis level of the general organizational units, the reliability of the measurement is known to have no problem (Nunnally, 1978). For the alpha coefficient of career information, setting goals, planning, solving problems, and self-assessment as the specific measurement items of career decision-making self-efficacy used in this study, pre-education values and post-education values were shown as in <Table 5>.

Principal component analysis and Varimax methods of orthogonal rotation were used for factor analysis. In this study, loading factors more than 0.3 were considered to meet goodness of fit and some measured parameters below 0.3 have been removed.

<Table 5> Validity and Reliability Analysis

Factors	Measurement Variables	Loading Factor				Cronbach's Alpha				Remarks
		Experiment		Control		Experiment		Control		
		Pre	Post	Pre	Post	Pre	Post	Pre	Post	
Career information (factor 1)	Information on career of interests	.415	.689	.684	.591	.704	.803	.683	.790	Removed 1 variable (information on graduate school)
	Employment tendency	.682	.755	.648	.511					
	Salary	.687	.746	.468	.609					

	Personal networks in interested areas	.699	.669	.320	.837					
Setting goals (factor 2)	Majors	.520	.594	.574	.409	.834	.791	.809	.885	
	Occupation	.702	.627	.673	.792					
	Lifestyle	.450	.444	.694	.737					
	No regret	.680	.442	.514	.535					
	Selectable	.490	.707	.726	.753					
Planning (factor 3)	Resume	.814	.836	.705	.814	.699	.750	.771	.841	Removed 2 variables (5 years plan) (choosing graduate school)
	Company suited the aptitude	.380	.338	.518	.332					
	Employment procedure	.804	.765	.756	.636					
Solving problems (factor 4)	Changing the choice	.787	.842	.737	.711	.756	.799	.741	.780	Removed 2 variables (changing graduate school) (overcoming obstacles)
	Adjusting the career path	.769	.824	.753	.809					
	Preparing alternatives	.827	.821	.616	.779					
Self-assessment (factor 5)	Evaluating abilities	.778	.769	.700	.399	.815	.872	.870	.849	
	Ideal occupation	.424	.809	.812	.660					
	Value priority	.798	.544	.763	.769					
	Sacrifice and selection	.672	.507	.757	.622					
	Lifestyle	.721	.618	.758	.549					

The removed measurement variables were the ones related to pursuing an academic career path directly upon graduation or going to graduate school; the variables were not meaningful to most of the study objects who wanted to get jobs and, in addition, the questionnaire results of the variables were not appropriate in terms of the standard of the loading factors. The measurement item of '5 year plan' was also removed from planning; it was the question about whether students were able to plan out the coming 5 years. The item of 'overcoming obstacles' was removed from the factors of solving problems because it did not meet the standard of the loading factor; it was the question about whether students continued to work toward goals in difficult situations.

Hypothesis Testing

The results of the comparison of the details between the PBL-applied experimental group and the control group learned from general lectures were as shown in <Table 6>.

First, while the hypothesis that students who participated in PBL classes could improve their confidence with regards to their ability to search for career information showed a significant difference in the experimental group (t=-2.16, p=0.033), the hypothesis did not show any significance in the control group (t=1.39, p=0.168). Therefore, the hypothesis was supported. Second, for the hypothesis with regards to the confidence in setting goals, the experimental group showed a significant difference between before PBL-application and after PBL-application (t=-2.20, p=0.030); the control group showed the opposite results (t=2.08, p=0.040). In other words, in the tests conducted in the beginning of the semester and in the end of the semester, the control group showed lower confidence in setting goals ($p<0.05$) in the beginning of the semester than in the end of the semester. This result suggests that the confidence in setting goals was decreasing more with time. Third, in the belief with regards to planning and doing, the experimental group showed a significant difference (t=-2.36, p=0.020); the control group showed an insignificant change. Fourth, the conviction that students could solve problems by themselves showed a slightly improved value in the mean, but both the experimental group and the control group showed insignificant change. Fifth, for the confidence that students could evaluate the occupations that suited themselves, the experimental group showed a significant difference even though not conspicuous (t=-1.97, p=0.052), but the control group showed insignificant change.

<Table 6> Comparison between pretest and posttest by the t-test

Factors	Group classification	Pretest		Posttest		Difference analysis		t	p
		Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation		
Career information	Experiment	4.15	0.98	4.47	1.09	-0.32	-0.11	-2.16	0.033
	Control	4.45	0.93	4.27	0.99	0.18	-0.06	1.39	0.168
Setting goals	Experiment	4.55	1.04	4.85	1.01	-0.30	0.03	-2.20	0.030
	Control	4.85	0.94	4.59	4.59	0.26	-3.65	2.08	0.040
Planning	Experiment	3.89	0.97	4.21	1.06	-0.32	-0.09	-2.36	0.020
	Control	4.35	0.95	4.24	1.00	0.11	-0.05	0.92	0.358
Solving problems	Experiment	4.51	1.08	4.87	0.87	-0.36	0.21	-0.29	0.839
	Control	4.57	0.95	4.61	0.95	-0.04	0.00	-0.28	0.781
Self-assessment	Experiment	4.87	0.87	5.13	0.91	-0.26	-0.04	-1.97	0.052
	Control	4.93	0.95	4.78	0.91	0.15	0.04	1.32	0.189

The results of this study indicated that students who took PBL-applied classes showed a significant difference in mean value of the abilities before education versus after education in terms of the factors of career information, setting goals, planning, and self-assessment than students who took general-lecture-centric classes. However, the study did not prove that self-conviction would improve in the factor of solving problems.

Concluding Remarks

This study designed and carried out PBL-applied classes to examine the effects of PBL on career decision-making self-efficacy of women's university students. It was shown that, after applying PBL, the students of the experimental group could improve their confidence to find information on job opportunities and the career that they wanted. This could be attributed to the fact that the problems (or tasks) assigned to them during class hours were to investigate IT solutions that the companies where they would want to work were using to manage companies; and in the process, the salary levels and the working conditions of the companies could be identified simultaneously.

Women's universities that want to increase the employment rate of university graduates need to actively consider using PBL in an Information Technology-related Curriculum. While every university has a variety of employment support programs in operation, the most important curricula and class methods are not changing that much. PBL can be an alternative for improving current ways of class operation and be expected to produce the effect that students can take the initiative in their career decisions.

The results showed that the confidence that students evaluated their abilities more clearly and selected an occupation to meet their expectations was improved through PBL. This might be the most important element in their career choice to know about what they are interested in and what they can do best. We suggest that PBL enables students to improve their confidence in self-assessment and to evaluate their abilities and values properly.

Will and Confidence in solving problems are somewhat different from problem-solving abilities; this study measured both will and confidence focusing on self-efficacy. If students do not feel difficulties or obstacles in the process of solving problems, it is not easy to measure whether will and confidence in solving problems are improved or not. The self-efficacy of students differs from the abilities of students so it is necessary to develop a new PBL-applied class design in a way that enables students to improve their self-efficacy as well as their problem-solving abilities. The topic of PBL classes have effects on the improvement of problem-solving abilities requires additional studies in the future.

This study has a limitation in that it assumed that higher career decision-making self-efficacy would lead to higher employability. There is a need to empirically analyze whether students who obtained higher self-efficacy would achieve a higher employment rate upon graduation.

References

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84, pp. 191-215.

Barrows, S. B. (1996). Problem-based learning in medicine and beyond: A brief overview. *New Directions for Teaching and Learning*, 68, pp. 3-12.

Barrows, H. S. & Myers, A. C. (1993). Problem-based learning in secondary schools. Unpublished monograph. Springfield, IL, Problem-based Learning Institute. *Lanphier high school and Southern Illinois University Medical School*.

Betz, N. E., Klein, K. L., & Taylor, K. M. (1996). Evaluation of a Short Form of the Career Decision-Making Self-Efficacy Scale, *Journal of Career Assessment*, 4(1), pp. 47-57.

Delisle, R. (1997). How to use problem-based learning in the classroom, *Association for Supervision and Curriculum Development*, Alexnadria, VA.

Hackett, G. & Betz, N. (1981). A self-efficacy approach to the career development of women, *Journal of Vocational Behavior*, 18(3), pp. 326-339.

Hung, W. (2009). The 9-step problem design process for problem-based learning: Application of the 3C3R model. *Educational Research Review*, 4(2), pp. 118-141.

Hung, W. (2011). Theory to Reality: A Few Issues in Implementing Problem-Based Learning. *Education Technology Research & Development*, 59, pp. 529-552.

Lee, Jeong-Mee. (2013). The Effects of Problem-Based Learning on Self-Regulated Learning Ability in LIS Education: Based on Cognitive and Motivational Components. *Journal of Korean Library and Information Science*, 47(4), pp. 60-67.

Lee, Eun-Jin. (2001). Effects of career-planning group counseling for multi-potential university students. Dissertation. Yonsei University.

Lent, R. E., Brown, S. D. & Hackett, G. (2002). Social *Cognitive Career Theory in Career Choice and Development* (fourth edition), Jossey-Bass, San Francisco.

Luzzo, D. A. (1996). Exploring the relationship between the perception of occupational barriers and career development. *Journal of Career Development*, 22(4), pp. 239-248.

McArdle, S., Waters, L., Briscoe, J., & Hall, D. (2007) Employability during unemployment: Adaptability, career identity and human and social capital, *Journal of Vocational Behavior,*71, pp. 247-264.

Nunnally, J. C. (1978). Psychometric method, McGraw-Hill, New York, 1978.

Restbog, S. L., Florentino, A., & Garcia, P. (2010). The mediating roles of career self-efficacy and career decidedness in the relationship between contextual support and persistence, *Journal of Vocational Behavior,* 77(2), pp. 186-195.

Shin, S. & You, D. (2014). Effects of Hybrid Style Problem-Based Learning in Food Service Entrepreneurship Subject - Focusing on Problem Solving Skills, *Journal of the Korea Contents Association*, 14(6), pp. 453-365.

Stepien, W. & Gallagher, S. (1993). Problem-based learning: As authentic as it gets. *Educational Leadership*, 50(7), pp. 25-28.

Taylor, K. M. & Betz, N. E. (1983). Applications of self-efficacy theory to the understanding and treatment of career indecision, *Journal of Vocational Behavior*, 22(1), pp. 63-81.

Torp, L. & Sage, S. M. (2002). Problem as Possibilities: Problem Based Learning for K-16 Education (2nd Eds.) *Association for Supervision and Curriculum Development*.

Vernon, D. & Blake, R. L. (1993). Does problem-based learning work? A meta-analysis of evaluative research, *Academic medicine*, 68(7), pp.550-563.

Vernon, D. & Hosokawa, M. (1996). Faculty attitudes and opinions about problem-based learning, *Academic Medicine*, 71(11), pp. 233-238

Vinokur, A. D., Van Ryn, M., Gramlich, E. & Price, R. (1991). Long-term follow-up and benefit-cost analysis of the Jobs Program: A preventive intervention for the unemployed. *Journal of Applied Psychology*, 76(2), pp.213-219.

Rethinking Teaching and Learning of Economics: A Case for Pedagogical Efficiency

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Keywords
Pedagogical efficiency, teaching & learning, active learning, service learning, reflective learning, collaborative learning

Abstract

This paper examined the impact of pedagogical efficiency in the teaching and learning of economics to undergraduate students. Efficiency in economics implies both allocative efficiency (using right mix of tools of economics to produce skilled students that employers would hire) and productive efficiency (providing least-cost materials that are accessible, available, affordable, and current for students). Our graduates are our finished products and various industries demand our finished products. Our main focus was the delivery and confirmation of student mastery of skills. Using a linear production function approach, we examined the strategies and processes that confirm student mastery of requisite skills to excel in the related industries. Our results showed that in economics, production of skilled graduates is a function of the best mix of Universal Instructional Design (UID); Active Learning (AL); Service Learning (SL); Collaborative Learning (CL); and Reflective Learning (RL). The results further revealed that pedagogical efficiency focusing on the delivery as we intentionally addressed the questions of why we teach, who we teach, what we teach, how we teach, and for whom we teach, increased the academic success rates of economics graduates.

Cultivating University-backed international entrepreneurship programming as a catalyst for economic development & job creation in underserved communities

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Key words
Entrepreneurs; Underserved Communities; Economic Development

Abstract

This paper will present a summary of the early success stories associated with and resulting from the international entrepreneurship initiatives spearheaded as a result of the leadership of Dr. Jo-Ann Rolle, Ph.D., Dean of the Medgar Evers College School of Business, City University of New York, and the associated and resulting impacts on student-operated ventures. Specifically, the paper will address and reflect on the International Innovators Initiative (IN2NYC), operated as a partnership between the City University of New York and the New York City Economic Development Corporation (NYCEDC), which is housed at the Medgar Evers College Entrepreneurship and Experiential Learning (EEL) Lab.

Finally, although the U.S. still ranks #1 in the Global Entrepreneurship and Development Index (GEDI), the paper will also review the challenges associated with attracting and cultivating international entrepreneurs and the impact, and sometimes negative consequences of, U.S. immigration policy.

Using digital academic profiles for assessing the quality of education and creating a competitive workforce

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Keywords
information technology, digital evaluation, digital assessment, academic portfolios, workforce development

Abstract

As businesses increasingly seek employees skilled at multitasking, colleges must develop students who master new digital proficiencies and business techniques. The glaring implication is that colleges and universities must go a step further to adapt and respond appropriately to the challenges and opportunities of workforce demands. Coordinating data collection of key performance indicators supports instructional planning and establishes proper protocols for aligning curriculum with industry standards. Student enrollments, course selections, digital fingerprints online, and participation in college clubs all produce a gold mine of data. A more granular look at these interactions reveals greater insights about student needs, interests, and motivations. Ongoing assessment improves performance and presents a more comprehensive picture of students' academic progress.

The purpose of this paper is to explore how digital assessment develops a more accurate measure of excellence, change the dynamics of academic review, and produce competitive students. Summative assignments do not measure business skills such as teamwork, networking, collaboration, and character traits which are increasingly important for participation in the working world. Profiles of students' aspirations and career objectives are equally as important as course completion because they represent the student's personality, talents, and professional behavior.

This research presents the "Digital Academic Profile" (DAP), a new disruptive phenomenon for reporting student accomplishments as they matriculate from admission to graduation. DAPs' qualitative analytics enrich dialogues about student achievement and create opportunities for educational constituents to efficiently design learning that improves student performance. Applying a multi-perspective theoretical view, this research relies on the principles of participatory epistemology, heuristic evaluation, and disruptive innovation to determine the reliability and validity of the DAIS potential to increase educational productivity.

1. The Introduction

In recent years, the rapid increase in the use of technology and digital communications has led to strategic advantages for business, professions, education, and society. Schools and state agencies have recognized the need to proactively capitalize on the use of technology to guide educational decision making and better manage critical academic data (Marsh, 2012). The Association of American Colleges and Universities (2009) believes that valid assessment data are needed to guide planning, teaching, and improvement. Well-planned data collection methods establish new assessments metrics and lead institutions in achieving expected goals (Association of American Colleges and Universities, 2009). Researchers and educators have found that digital tools which make our lives inherently efficient also helps to appropriate information in ways that improve the quality of education (Hu, 2017).

To connect data to educational outcomes is to use an outcomes assessment plan that includes evaluating core competencies and student achievement based on curricular and co-curricular activities throughout a student's college life. A comprehensive performance assessment system is an excellent method for displaying a student's true potential and ability (Meisels, 1997). The states of Vermont and Kentucky began to investigate the possibility of using portfolio assessments instead of standardized tests to judge educational achievement. Zayed University researchers developed an e-portfolio assessment system for an information technology degree program. Zayed required students to create an e-portfolio and showcase significant course work as digital artifacts (Tubaishat, et al., 2009). The research proved that in time, e-portfolios would become an essential source of information for evaluating the effectiveness of student outcomes.

Delandshere (2002) pointed out there had been years of arguments regarding the need for new forms of educational assessment due to "an almost unanimous recognition of the limitations of current measurement theory and practice." Those who perform educational metrics work from old methodologies and perspectives. In fact, the history of grading point average (GPA) in American colleges dates back to the 1700s when Yale University formulated it, then finalized in the 1800s (Durm, 1993). Excluded from traditional grading systems are specific notions of learning, knowing, and inquiry, and the conditions necessary to foster productive learning experiences.

According to Dr. Samuel Meisels, a renowned Harvard scholar on assessment, "most standardized tests are not designed to evaluate the individualized growth and development taking place in your classroom" (Meisels, 1997). Dr. Meisels advocates for portfolios and "purposeful collections" of student's work that "illustrate their efforts, progress, and achievements." Such portfolios provide rich documentation of the student's experiences throughout the year and lead to the development of new activities based on the student's progress and interests. By collecting portfolio items on multiple occasions, it becomes a tool for documenting, analyzing, and summarizing student growth and development.

Early research from the Coalition of Essential Schools and the Annenberg Institute for School Reform identify assessment and technology as two core factors in the successful implementation and use of e-portfolios (Niguidula, 1997). As the concept of portfolio assessment expands, technology makes way for the transformative process of digital assessment. This research will explore the efficacy of a digital assessment information system (DAIS) for enhancing the grade reporting process, reflect more accurate measures of excellence, expand the portfolio assessment model, and change the dynamics of academic review.

2. Revolutionizing Assessment Methods

ACT, Inc., formerly the American College Testing (ACT) recently conducted tests for more than 2 million (or 64 percent) of high school graduates becoming the most popular assessment used to predict college performance. In their 2012 report about major preferences and prospects, nearly 80% of high school students selected a major they intended to declare in college, but 64% of those students choose a major that did not fit with their academic strengths and interests (ACT, Inc., 2013). Similarly, about 90% of low-income, first-generation students do not graduate within six years because they are likely unfamiliar with the "hidden curriculum" that determines students' success in their major or perhaps working more than 20 hours per week to finance their education (Education Advisory Board, 2016). Jon Erickson, ACT president of education and career solutions believes that choosing a college major reflective of students' interests gives them a better chance of succeeding and could also contribute to their satisfaction in school and on the job.

Given that standardized tests are a snapshot of learning at two points in time, little information from these tests are used to guide pedagogical and curricular improvements (Humphreys, 2009). More research is necessary to address the problems colleges and universities face with poorly designed curricula that does not align to workforce demands. Educational reform policies, particularly in urban institutions mandate more effective accountability programs (Porter, et al., 2004). Tremendous pressure is placed on academic institutions to provide an education leading to gainful employment, given the soaring price of tuition. The Association of American Colleges and Universities (AACU) is using their Liberal Education and America's Promise (LEAP) initiative and the Valid Assessment of Learning in Undergraduate Education (VALUE) project to explore an alternative approach for assessing learning. VALUE assumes that "well-planned e-portfolios can inform programs and institutions about their [students] progress to achieve expected goals." AACU seeks to report aggregate findings to internal and external audiences on a "broad range of outcomes associated with the global and complex world in which we live" (Humphreys, 2009).

Furthermore, accreditations organizations, such as North Central Association of Colleges and Schools are requiring academic institutions to present a better method for assessing students' learning outcomes with a focus on general education courses (Tubaishat, et al., 2009). Most colleges and universities have an abundance of data but need the capacity to turn data into meaningful information. When considered in conjunction with interoperability standards, academic data can be dispersed in mini-systems throughout the functional units of an institution to create a more extensive process than usual for performing program assessment. At any given college, there are dozens of databases, not counting the research databases and course management systems holding a wealth of assessment metrics.

The ubiquity of electronic communications makes the collection of student data intuitive. For many institutions, finding the resources for normalizing and warehousing data and the expertise to set up a robust assessment system can be challenging. The lack of technology skills by academicians is another challenge. Pechone & Chung (2006) warns that it is insufficient to measure student achievement with only course grades. Student learning must be tied to goals and objectives in a systematic process. Authentic assessment requires cross-program collaboration and communication to effect institutional change. This imperative, if done appropriately, will advance institutional review far beyond the goal of conforming to accreditation (Buzzetto-More, 2010). It will help to validate what students have learned and measure the academic intensity of degree programs.

A digital system is a more rapid and reliable assessment process for creating measurable relationships and continuous improvement (Diamond & Gardiner, 2000; Marsh, 2012). Several academic institutions have adopted the outcome based educational model to move away from the GPA driven model. DAIS also adopts the outcome-based model, but instead of moving away from the GPA, includes additional curricular and non-curricular factors in a continuous cycle of collection, organization, and interpretation of data to determine whether degree programs produce the types of graduates, colleges state in their mission, goals, and objectives. In a four-phase process, DAIS 1) establishes non-traditional measurable outcomes of student learning, 2) ensures that students have adequate opportunities to achieve these outcomes, 3) gathers, analyzes and interprets learning artifacts to determine how well it matches program goals, and 4) uses the resulting algorithms for performance reporting. The goal of DAIS is to establish stronger symmetry between learning and program goals and put in the hands of academicians a digital tool that will revolutionize the assessment review process.

2.1 The Electronic Portfolios Assessment Model

The use of electronic portfolios in higher education institutions has been steadily increasing due to campus saturation with digital technologies. E-portfolios are purposeful aggregations of digital artifacts that articulate student experiences, achievements and learning. They may be the most significant technological innovation on college campuses for evaluating performance and exposing enormous possibilities for re-thinking curricula, instruction, and assessment. By 2004 approximately 70% of higher educational institutions were implementing or using some form of e-portfolio (Lorenzo & Ittelson, 2005). Didactical implications for using e-portfolios are to diversify student-centered learning and create higher quality outcomes. In 2011, the Electronic Portfolio Action & Communication (EPAC) team at Stanford University surveyed higher education institutions to determine their purposes for adopting e-portfolios. The results revealed nine categories for college use. Table 1 sorts these categories from greatest to least used.

Table 1

#	CATEGORY
1	Institutional and programmatic assessment
2	Documentation of student learning
3	Career development
4	Integrative learning/interdisciplinary learning
4	Course management
6	General education
7	Reflection
8	Professional development
9	Transfer

2011 Stanford University EPAC Survey: Categories of E-Portfolio Use in Higher Education

Stanford University categories help coordinate assessment efforts with standards-based protocols for the institution. Other educational institutions see the broad impact of performing portfolio based assessment. The "Urban Universities Portfolio Project" was the first to explore institution-wide e-portfolios for assessment and accreditation (Cambridge, 2001). Subsequently, the Western Association of Schools and Colleges also encouraged institutions to use e-portfolios for accreditation. As the phrase "portfolio thinking" emerged, it became the mindset institutions adopt in its assessments practices to create a culture of analysis, interpretation, and reflection (Holland, 2002).

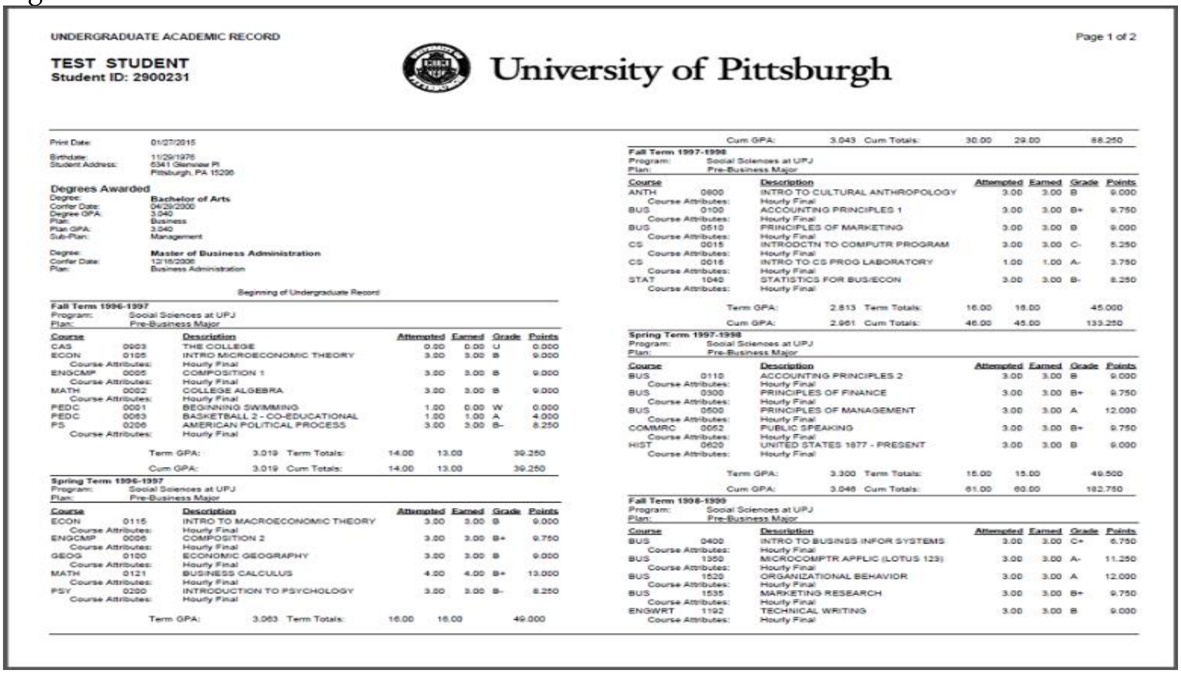
2.2 Digital Academic Profiles

While portfolios are aggregations of artifacts representing accomplishments, profiles are representative of the subject's character, interest, and performance. Digital profiles allow for multimedia representations of content. In the Internet world, they are the heart of social media and used to showcase an individuals' characteristics. The Pew Research Center report "Social Media Use in 2018" show that "88% of 18- to 29-year-olds indicate that they use any form of social media" which require the creation and use a digital profile. Online career centers require prospective employees to highlight key components of their career experiences, skills, and goals in a digital profile to match their qualifications with job openings. The new reality is that a well-designed digital profile demonstrates professionalism and is an asset to building an individual's brand.

ACT set new benchmarks with its "interest-major fit" score predicting student outcomes. Encouraging the use of behavioral assessments to help identify noncognitive impediments to success, they review factors of: 1) motivation and skills, 2) social engagement, and 3) self-regulation. Research at ACT and elsewhere suggests that if students' measured interests match interests of people in their career, they will be more likely to remain in their major, persist in college, and complete a college degree in a timely manner (ACT, Inc., 2016).

Within DAIS, the digital academic profile (DAP) merges the concepts of e-portfolios and digital profiles to represent students' broad performance. It is an assessment product that looks at formal and informal student learning and behaviors to reveal greater academic insights. The DAP includes the traditional transcript data as well as digital artifacts highlighting special accomplishments, and participation data. Other sections of the report contain information about performance in co-curricular, extracurricular and service learning activities (sports, events, conferences, student groups, etc.). A student section allows for an explanation of career interests and goals. The digital aspect of DAP makes it interactive and shareable in full or in part, and interactive. In addition to the GPA, DAPs will contain a Performance Assessment Symmetry Score (PASS) a multi-factor analysis of student's performance throughout their college life. Figure 1 shows a sample current form of an academic transcript.

Figure 1



UNDERGRADUATE ACADEMIC RECORD

TEST STUDENT
Student ID: 2900231

University of Pittsburgh

Page 1 of 2

Print Date: 01/27/2015
Birthdate: 11/29/1976
Student Address: 6341 Glenview Pl
Pittsburgh, PA 15206

Degrees Awarded
Degree: **Bachelor of Arts**
Confer Date: 04/29/2000
Degree GPA: 3.040
Plan: Business
Plan GPA: 3.040
Sub-Plan: Management

Degree: **Master of Business Administration**
Confer Date: 12/16/2006
Plan: Business Administration

Beginning of Undergraduate Record

Fall Term 1996-1997
Program: Social Sciences at UPJ
Plan: Pre-Business Major

Course		Description	Attempted	Earned	Grade	Points
CAS	0003	THE COLLEGE	0.00	0.00	U	0.000
ECON	0105	INTRO MICROECONOMIC THEORY	3.00	3.00	B	9.000
Course Attributes:		Hourly Final				
ENGCMP	0005	COMPOSITION 1	3.00	3.00	B	9.000
Course Attributes:		Hourly Final				
MATH	0002	COLLEGE ALGEBRA	3.00	3.00	B	9.000
Course Attributes:		Hourly Final				
PEDC	0001	BEGINNING SWIMMING	1.00	0.00	W	0.000
PEDC	0063	BASKETBALL 2 - CO-EDUCATIONAL	1.00	1.00	A	4.000
PS	0206	AMERICAN POLITICAL PROCESS	3.00	3.00	B-	8.250
Course Attributes:		Hourly Final				
	Term GPA: 3.019	Term Totals:	14.00	13.00		39.250
	Cum GPA: 3.019	Cum Totals:	14.00	13.00		39.250

Spring Term 1996-1997
Program: Social Sciences at UPJ
Plan: Pre-Business Major

Course		Description	Attempted	Earned	Grade	Points
ECON	0115	INTRO TO MACROECONOMIC THEORY	3.00	3.00	B	9.000
Course Attributes:		Hourly Final				
ENGCMP	0006	COMPOSITION 2	3.00	3.00	B+	9.750
Course Attributes:		Hourly Final				
GEOG	0100	ECONOMIC GEOGRAPHY	3.00	3.00	B	9.000
Course Attributes:		Hourly Final				
MATH	0121	BUSINESS CALCULUS	4.00	4.00	B+	13.000
Course Attributes:		Hourly Final				
PSY	0200	INTRODUCTION TO PSYCHOLOGY	3.00	3.00	B-	8.250
Course Attributes:		Hourly Final				
	Term GPA: 3.063	Term Totals:	16.00	16.00		49.000
	Cum GPA: 3.043	Cum Totals:	30.00	29.00		88.250

Fall Term 1997-1998
Program: Social Sciences at UPJ
Plan: Pre-Business Major

Course		Description	Attempted	Earned	Grade	Points
ANTH	0800	INTRO TO CULTURAL ANTHROPOLOGY	3.00	3.00	B	9.000
Course Attributes:		Hourly Final				
BUS	0100	ACCOUNTING PRINCIPLES 1	3.00	3.00	B+	9.750
Course Attributes:		Hourly Final				
BUS	0510	PRINCIPLES OF MARKETING	3.00	3.00	B	9.000
Course Attributes:		Hourly Final				
CS	0015	INTRODCTN TO COMPUTR PROGRAM	3.00	3.00	C-	5.250
Course Attributes:		Hourly Final				
CS	0016	INTRO TO CS PROG LABORATORY	1.00	1.00	A-	3.750
Course Attributes:		Hourly Final				
STAT	1040	STATISTICS FOR BUS/ECON	3.00	3.00	B-	8.250
Course Attributes:		Hourly Final				
	Term GPA: 2.813	Term Totals:	16.00	16.00		45.000
	Cum GPA: 2.961	Cum Totals:	46.00	45.00		133.250

Spring Term 1997-1998
Program: Social Sciences at UPJ
Plan: Pre-Business Major

Course		Description	Attempted	Earned	Grade	Points
BUS	0110	ACCOUNTING PRINCIPLES 2	3.00	3.00	B	9.000
Course Attributes:		Hourly Final				
BUS	0300	PRINCIPLES OF FINANCE	3.00	3.00	B+	9.750
Course Attributes:		Hourly Final				
BUS	0600	PRINCIPLES OF MANAGEMENT	3.00	3.00	A	12.000
Course Attributes:		Hourly Final				
COMMRC	0052	PUBLIC SPEAKING	3.00	3.00	B+	9.750
Course Attributes:		Hourly Final				
HIST	0620	UNITED STATES 1877 - PRESENT	3.00	3.00	B	9.000
Course Attributes:		Hourly Final				
	Term GPA: 3.300	Term Totals:	15.00	15.00		49.500
	Cum GPA: 3.048	Cum Totals:	61.00	60.00		182.750

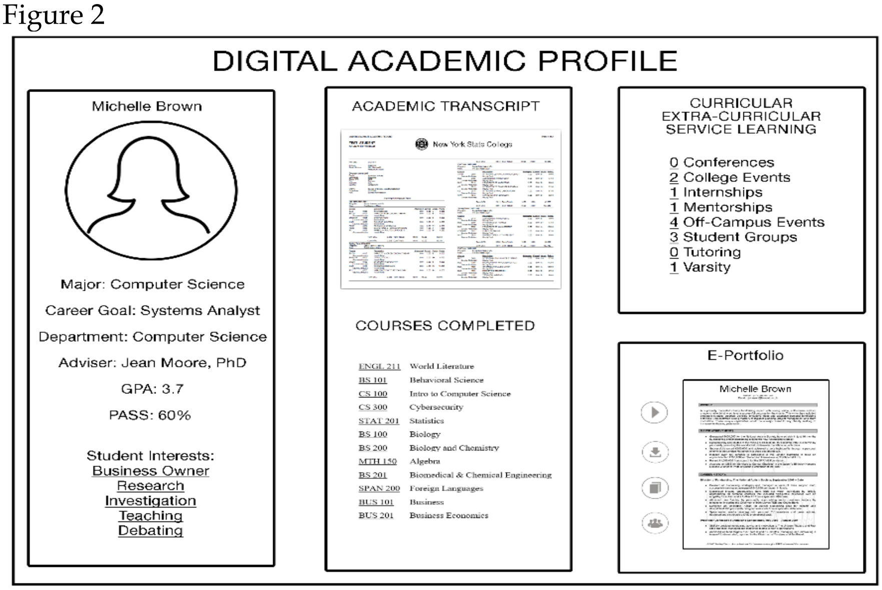
Fall Term 1998-1999
Program: Social Sciences at UPJ
Plan: Pre-Business Major

Course		Description	Attempted	Earned	Grade	Points
BUS	0400	INTRO TO BUSINSS INFOR SYSTEMS	3.00	3.00	C+	6.750
Course Attributes:		Hourly Final				
BUS	1350	MICROCOMPTR APPLIC (LOTUS 123)	3.00	3.00	A-	11.250
Course Attributes:		Hourly Final				
BUS	1520	ORGANIZATIONAL BEHAVIOR	3.00	3.00	A	12.000
Course Attributes:		Hourly Final				
BUS	1535	MARKETING RESEARCH	3.00	3.00	B+	9.750
Course Attributes:		Hourly Final				
ENGWRT	1192	TECHNICAL WRITING	3.00	3.00	B	9.000
Course Attributes:		Hourly Final				

Sample Transcript

Figure 2 shows the DAP prototype which has more robust information about a student's performance. A student has the option of granting DAP open access to employers or restricting access in full or in part with a personal identification number (PIN). The full transcript and resume may be downloaded. Numeric values next to activities link to information describing the events. Links under the student interests display the student's rationale. Links next to courses codes connect to course objectives. The department name connects to the department mission statement. The name of the major connects to the program goals and objectives.

Figure 2



DAPtm Prototype

2.3 Theoretical Framework

DAIS and DAPs are disruptive paradigms expected to influence educational policy and significantly challenge institutional assumptions about assessment and student learning. To support colleges and universities and design a systematic process for improving outcomes, this research adopts more than one theoretical framework to broaden discussions within the research community. To uncritically apply alternative explanations from varying points of view, it uses a participatory epistemology, heuristic evaluation, and disruptive innovation principles. Table 2 shows the theoretical implications.

Table 2

THEORY	Participatory Epistemology	Heuristic Evaluation	Disruptive Innovation
Impact	Learners	Software	Assessment
Method	Evaluate subjects as they participate in learning activities.	Evaluate the design and usability of DAIS.	Evaluate institutional DAIS practices.
Analysis	Quantify and qualify student performance in curricular, co-curricular, and service learning.	Correlate usability with institutional outcomes.	Perform a cost benefit analysis.
	COGNITIVE	INTUITIVE	PRACTICAL

2.4 System Design & Data Analysis

The user will be able to use DAIS to collects a matrix of performance data at varying functional levels for review and tracking, in much of the same way e-portfolio information is collected. Colleges capture a vibrant picture of student development and progress in and out of classrooms. The institution will have a record of learning and performance from admission through graduation. Data about courses and programs are incorporated as base information. Career and personal interest data are entered by students. Grades and course performance scores are entered by faculty members. Co-curricular and extra-curricular participation data is entered by the specified unit (ex: athletics, sorority, fraternity, mentor, internship, etc.) In raising the quality of program review, DAIS creates key performance indicators not captured by classroom assessments.

By strategically incorporating stakeholder objectives, DAIS aligns student performance with industry skills (communication, critical reading, quantitative reasoning and problem-solving etc.), and program outcomes with accreditation standards. The system will analyze whether a program is achieving the required levels and if not, where improvement is needed. Recommendations from these program reviews can become part of a program's strategic planning efforts. Listed below are the data items (objectives, measures, activities, and scores):

Performance Objectives (PO) are the knowledge, skills and abilities students are expected to accomplish.

Agency performance objectives (APO) are specific POs as determined by accreditation and industry standards;

Program objectives (PPO) are POs as determined by the degree program; and

Course objectives (CPO) are POs as determined by each course.

Performance Measures (PM) are graded course assignments used to assess learning.

Exams – interim tests that contain (multiple/choice, true/false, fill-in the blanks, matching questions, etc.);

Written reports – research reports and essays that are not a part of an exam; and

Projects – presentations, case studies, and comprehensive assignments; and

Term grades – total student grade for each course.

Performance-Based Activities (PA) represent student participation in activities outside of the classroom that support learning.

Campus events – that are discipline-specific, college-specific, industry-specific, general activities;
Off-campus events – that are discipline-specific, college-specific, industry-specific;
Varsity – participation in sports as an athlete; and
Service learning – internships, externships, college work study.
Performance Scores (PS) are calculated ratios and scores from the performance measures and performance-based activities in student e-portfolio artifacts.
Student Performance Score (SPS) – is an individual score from each PM.
Course Performance Score (CPS) – collection of scores from all students within a course.
Aggregate Performance Score (APS) – collection of scores from all students within a program; and
Performance Assessment Symmetry Score (PASS) – the calculated symmetry score between student learning, student performance, and degree program outcomes. This score represents an interest-major fit and student success factor.

Table 3 shows the data points, purposes, data analysis metrics, and type of variables. The Metric column indicates the codes: C-Causal. D-Descriptive, E-Exploratory, I-Inferential, M-Mechanistic, and P-Predictive. The Type column indicates the variable codes: D-Dependent, I-Independent, Me-Mediator, and Mo-Moderator.

Table 3

Data	Definition	Metric	Type
Program Objectives	knowledge and skills to be acquired by end of the program	D	Mo
Course Objectives	knowledge and skills to be acquired by end of the course	D	Mo
Agency Objectives	accreditation and industry standards	I, P	Mo
Student Outcomes	Performance scores (grades, participation in activities)	D, E, I	D
Program Outcomes	Program metrics (graduation rates, retention, enrollments)	D, E, I	D
DAIS Use	Measured system use	C, D	I
DAIS Competency	Capacity at which DAIS is used effectively	M	I
Assessment Competency	Ability of DAIS user to correlate objectives to outcomes	M	I
Program Assessment	the evaluation of program goals, objectives and outcomes	D	I
Subject Dissonance	incompatibility between major and student performance	I, P	Me
Program Dissonance	incompatibility between program and agency objectives	I, P	Me
Agency Symmetry	ratio between the agency standards and program objectives	I, P	D
Program Symmetry	ratio between program and course objectives	I, P	D
Student Symmetry	ratio between course objectives and student interests	I, P	D
Performance Assessment Symmetry Score (PASS)	Overall symmetry score between program objectives and student outcomes	I, P	

DAIS Data Analysis

The data analysis will include a review of student, faculty and agency perceptions of DAPs, student symmetry scores in DAPs, outcomes assessment and the usefulness of the DAIS. The performance matrix and associated symmetry scores will be analyzed to determine how well the DAIS captures performance variables, correlate them to improvements in assessment methods and to create a sustainable digital process for program review. The overall system analysis will include: 1) user statistics, 2) symmetry reports, 3) academic outcomes, and a 4) cost-benefit analysis.

3. Discussions and Conclusions

When students drop out of college programs, it's disappointing for the college and student but also for business, government, and society due to detrimental costs and implications for everyone. Financial aid and poor secondary school preparation are cited as top issues for college drop-outs, but the third most prominent reason is that students are not convinced of the major. The largest student loan debts, totaling $1.3 trillion, are those of college dropouts who took out loans hoping for a better life. Low income students need special attention with staying in school and finding jobs. Without the degrees, it ruins students chances of getting a good job and paying back these loans (The Hechinger Report, 2017).

3.1 DAIS Retention Strategies

DAIS is a cross-campus effort that supports academic advising, early alert, first-year retention, and institutional data analysis. All college constituents, faculty, staff, and administrators must align their functional areas to support assessment initiatives. Each department must share in the commitment to helping students succeed. DAIS will use a web-based interface for capturing performance data across the institution. Users have the options of entering data or running performance reports online and remotely. Faculty, registrars, admission officers, advisers, and students all have access to student DAPs. Career counselors are only part of the network for helping students succeed in the workforce. Colleges that create campus-wide retention programs have a clear strategy for identifying at-risk students and early intervention.

3.2 Research Aims & Objectives

The underlying aim is to study the effectiveness of digital program assessment. The research answers question abou the use of a digital assessment information system. The objectives of the study are:

- To examine the role of digital assessment in measuring student performance.
- To examine the role of digital assessment in program review.
- To identify digital methods for improving assessment.
- To increase symmetry between program objectives and stakeholder expectations.
- To increase symmetry between course objectives and student goals.
- To increase symmetry between student goals and major selection.
- To increase symmetry between student goals and student performance.
- To develop a sustainable process for student performance reporting.

3.2 Research Questions

It is expected that this research will demonstrate how well digital assessment enhances program review, increases symmetry between student outcomes and student choice of major, and increases symmetry between program objectives and external standards. The following questions are addressed by this research:

Does a DAIS benefit higher education institutions?

How does digital assessment measure student achievement?

Under what conditions can digital artifacts be used for program assessment?

What are the benefits of using digital assessment as perceived by faculty members and college administrators?

What are perceived obstacles to implementing digital assessment and how can they be overcome?

What are the skills necessary to effectively implement digital assessment?

What are the characteristics of the students in the program?

What are institution's accreditation compliance standards?

How does the institutional align program objectives with external stakeholder (employers) expectations?

How well does the assessment of student learning improve students' chances of success in the workforce?

4. Research Limitations and Direction for Further Research

This research is an in-process study of the digital assessment process. The population involved in this research will be limited to those will use the prototype DAIS customized for the study. Results of this study is limited to institutions who make full use of e-portfolios. The results may not be generalizable for institutions who do not follow a "portfolio thinking" approach. Agency data includes the collection of accreditation associations standards and industry skillsets for fit factor analysis. At present no colleges are using DAPs to represent student performance. Negative perceptions about digital assessment and e-portfolios may affect system outcomes. Insufficient data points will affect symmetry and yield false positives. Colleges must conduct their own cost benefit analysis, feasibility studies (technical, economic, and operational).

While DAIS attempts to allow for programmatic interventions, students who change majors midstream may affect their overall PASS and fit symmetry. Discomfort with entering data into an assessment information system may also hinder an institution's potential for program symmetry. Attempts to minimize the impact of these limitations and acknowledge the potential limitations is unique for each institution. Future research should evaluate collaborations between academic institutions and external stakeholders, and the impact businesses and industry have on college curriculum.

5. References

ACT, Inc., 2013. A Profile of 2012 ACT-Tested High School Graduates: College Choice Report Part 1 - Preferences and Prospects, Iowa City: ACT, Inc..

ACT, Inc., 2016. ACT College Choice Report: Class of 2015, Iowa City: ACT, Inc..

Association of American Colleges and Universities, 2009. VALUE: Valid assessment of learning in undergraduate education. [Online]

[Accessed 1 May 2013].

Barrett, H., 2006. Researching and Evaluating Digital Storytelling as a Deep Learning Tool. s.l., s.n.

Barrett, H., 2011. Balancing the two faces of e-portfolios. In: Innovations in Education (2nd Edition). s.l.:British Columbia Ministry of Education.

Battenfield, S., 2012. Is a Digital Portfolio Really Worth It?. Sacramento, California State University.

Buzzetto-More, N., 2010. The E-Portfolio Paradigm: Informing, Educating, Assessing and Managing with E-Portfolios. Santa Rosa: Informing Science Press.

Cambridge, B., 2001. Electronic portfolios: Emerging practices in student, faculty, and institutional learning. Washington: Stylus Publishing.

Delandshere, G., 2002. Assessment as Inquiry. Teachers College Record, 104(7), pp. 1461-1484.

Diamond, R. M. & Gardiner, L. F., 2000. Curriculum review, Rutgers: The National Academy for Academic Leadership, Rutgers University.

Durm, W. A., 1993. An A is Not an A is Not A: The History of Grading. The Educational Forum, Spring.Volume 57.

Education Advisory Board, 2016. 90% of low-income, first-gen students don't graduate on time. But colleges can change that. [Online]

Available at: https://www.eab.com/daily-briefing/2016/03/16/90-percent-of-low-income-first-gen-students-dont-graduate-on-time-but-colleges-can-change-that

Goodhue, D. & Thompson, R., 1995. Task-technology fit and individual performance. MIS Quarterly, 19(2), pp. 213-238.

Herman, J. L. & Winters, L., 1994. Portfolio Research: A Slim Collection. Reporting What Students Are Learning, October, 52(2), pp. 48-55.

Holland, B., ed., 2002. Metropolitan Universities: An International Form. Urban Universities Portfolio Project, 13(3).

Hu, C., 2017. Students, computers and learning: Where is the connection?. Education Information Technologies, 22(6), p. 2665–2670.

Humphreys, D., 2009. Assessing Learning Outcomes: Lessons from AAC&U's VALUE Project. Peer Review: Emerging Trends and Key Debates in Undergraduate Education, 11(1).

Jafari, A., 2004. The "Sticky" ePortfolio System: Tackling Challenges and Identifying Attribute. Educause, July/August, 39(4), pp. 38-49.

Knefelkamp, L. L., 1989. ASSESSMENT AS TRANSFORMATON. Atlanta, s.n.

Leonard, D. M. & Norris, J., 2008. What Every Campus Leader Needs to Know, Herndon: Strategic Initiatives, Inc..
Lorenzo, G. & Ittelson, J. C., 2005. An Overview of EPortfolios, Washington: Educause Learning Initiative.
Marsh, J., 2012. Interventions Promoting Educators' Use of Data: Research Insights and Gaps. Teachers College Record, 114(110303).
McNeil, L., 2000. Sameness, bureaucracy, and the myth of educational equity: The TAAS system of testing in Texas public schools. Hispanic Journal of Behavioral Sciences, 22(4), pp. 508-523.
McNeil, L. M., 2000. Contradictions of school reform: Educational costs of standardized testing. New York: Routledge.
Meisels, S. J., 1997. Using Work Sampling in authentic performance assessments. Educational Leadership, Volume 54, pp. 60-65.
Niguidula, D., 1997. Picturing performance with digital portfolios. Educational Leadership, 55(3), pp. 26-29.
Norris, D. & Leonard, J., 2008. What Every Campus Leader Needs to Know About Analytics, Herndon: Strategic Initiatives, Inc..
Pechone, R. L. & Chung, R., 2006. Evidence in Teacher Education. Journal of Teacher Education, 57(1), pp. 22-36.
Porter, A., Chester, M. & Schlesinger, M., 2004. Framework for an Effective Assessment and Accountability Program: The Philadelphia Example. Teachers College Press, June, 106(6), pp. 1358-1400.
Shepard, L. A. & Smith, M. L., 1989. Flunking grades: Research and policies on retention. Philadelphia: Falmer Press.
Smith, M., 1991. Put to the test: The effects of external testing on teachers. Educational Research, 20(5), pp. 8-11.
Stringer, E. & Genat, W. J., 2004. Action research in health. New Jersey: Pearson Education.
The Hechinger Report, 2017. 3.9 Million Students Dropped Out of College With Debt in 2015 and 2016, Washington: U.S. News.
Topi, H. et al., 2010. Curriculum Guidelines for Undergraduate Degree Programs in Information Systems. Association for Computing Machinery and Association for Information Systems.
Tubaishat, A., Lansari, A. & Al-Rawi, A. A., 2009. E-portfolio Assessment System for an Outcome-Based Information Technology Curriculum. Journal of Information Technology Education, Volume 8, pp. 43-54.
Waterman, E., 2002. Beyond the Administrative Core: Creating Web-based Student Services for Online Learners., Denver: Regis University.
Wholey, J. S., Hatry, H. & Newcomer, K., 2010. Handbook of Practical Program Evaluation. San Francisco: Jossey-Bass.

Structuring online courses in Business for optimal student performance with respect to individual student traits

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Keywords
online learning, locus of control, student attitudes, asynchronous online environment, online accounting education, online Business education, student-instructor interaction.

Abstract

This study was conducted at a mid-sized Canadian university to investigate whether the ex-ante attitudes displayed by students enrolled in a blended course on advanced cost accounting could be influenced through the way the course was structured. Specifically, students' locus of control (Rotter, 1954) was investigated as a predictor of academic success, as well as of different academic goals and estimates of study time for reaching those goals. We hypothesized that locus of control would not have an effect on actual academic performance, but it would influence students' ex-ante perceptions of their academic goals as well as the time needed to reach those goals. The course was unique, being offered in an unconventional format blending both online as well as traditional classroom approaches. The locus of control of each student enrolled in the course was ascertained using Trice's Academic Locus of Control Scale for College Students (Trice, 1985). Students were split into three groups based on their locus of control scores: internal versus external versus neutral locus of control.

As expected, we found no significant differences in academic performance among these groups, but we found significant differences in students' ex-ante course grade goals as well as assessments of study time. We surmise that this result is possibly the effect of the way the course was structured, which may have mitigated the effect of students' loci of control. This has implications for the structuring of online courses in Business.

Lessons learned from 2017 pilot mentorship program at School of Business Medgar Evers College

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Keywords
Mentor; Industry, Career Readiness, Business Readiness, Employment

Abstract

The paper will present a summary of the original pilot commissioned by the Medgar Evers College School of Business. The scope of work included selecting and screening industry mentors to match with an identified pool of student candidates. The time period of the pilot was once semester. During the pilot period assigned students and mentors were assigned to engage in activity that would promote the professional and personal growth of the students in a diverse group of industry fields.

While the pilot study results indicated students were sufficiently academically prepared for their chosen fields, it also indicated that they lacked several soft skills necessary for business readiness and success. The final outcome was the recommendation of a hard-to- soft skills bridge to enhance career readiness and improve employment success.

Introduction

The School of Business at Medgar Evers College, an accredited four-year college at the City of New York (CUNY), launched a pilot mentorship program in 2017. The program goals included the following: 1) to offer high-potential business students an opportunity to work individually with mentors from within the business community over a six-month period to accelerate their real-life business education, and 2) to widen the perspective of students who possessing limited prior exposure to the business community. The pilot program revealed potential opportunities for Medgar Evers business students, as well as "business readiness" limitations of these otherwise academically prepared students.

The pilot program

Business school Dean, Dr. Jo-Ann Rolle, engaged Wayne Brown, co-founder of The Walker Group and a veteran within the traditional banking sector and an emerging leader within the FinTech sector, and Kathy Hipple, co-founder of Noosphere Marketing and Finance professor at Bard's MBA in Sustainability, and Wall Street veteran, to launch the program. Dean Rolle identified an initial cohort of ten students from the School of Business to participate in the six-month program.

Hipple and Brown interviewed each member of the initial cohort during two 30-minute interview sessions. They sought to identify core competencies and business goals, including entrepreneurial interests, when applicable. Personal dreams and interests were also explored. Brown and Hipple tapped their networks for potential mentors with a combined network of decades of experience in finance, banking, FinTech, marketing and technology. They discovered a wide audience eager and willing to work with the Medgar Evers students.

They then explored which potential high-powered mentors would be most suitable for each mentee. They interviewed numerous potential mentees, explaining the expectations for the mentorship program which included the following: Two in-person or virtual meetings per month, over a six-month period.

Ten pairs were formed, and many seemed to provide ideal learning opportunities for the mentees. For example, a student interested in a career in high tech who'd written a business-plan winning app, was paired with a Silicon Valley executive whose client's include Facebook. And a student eager to launch a financial literacy organization aimed at New York City high school students was paired with the Executive Director of a Brooklyn–based non-profit that offers financial literacy programs for adults.

Mentors and mentees were introduced to each other, and asked to follow up with Brown and Hipple with brief emails monthly, and to attend optional monthly sessions held at Medgar Evers. This arrangement was intended to provide the mentees valuable real life experience from industry leaders to form the basis to build the foundation of framework moving forward.

Students Limited by Lack of "Business Readiness"

As the program progressed, it appeared that student-mentees were failing to take full advantage of the mentorship opportunities presented. Their written and oral communication skills hindered their ability and willingness to make continued contact with their mentors. They appeared unable to keep scheduled phone/Skype appointments with their mentors. Their email addresses were not professional, with many using friends' email address or email names that bore little resemblance to their actual names. Their LinkedIn profiles had been neglected.

Business Readiness Needed

The program identified business readiness as a core competency students need. The students were unable to take full advantage of the mentorship opportunity because they lacked basic business skills, which some have called business etiquette. It appears the students are well prepared academically, but their business readiness does not yet match their academic skillset. (Hipple attended a number of classes within the business school, including Finance and Marketing classes, and found the students to be highly engaged and motivated, and performing well academically. Professors were of high caliber, and the teaching was rigorous.)

We recommend launching a program that bridges the gap between academic education and business-specific soft skills, called business readiness in this abstract, to allow Medgar Evers students to succeed in the business community.

Teaching Hip Hop Marketing

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Keywords
Entrepreneurs; Marketing; Hip Hop; Youth; Community Development

Abstract

Hip Hop is the world's most listened to, most pervasive, and therefore most powerful music genre. However, when asked the question – "What is Hip Hop?" – who can give a clear response?

This cultural force bloomed in the decaying corners of the early 1970s, amalgamating diverse sonic sources (funk, disco, R&B, reggae) alongside street art, party culture, and the natural need for youth self-expression. Hip Hop culture emerged as a legitimate avenue for disenfranchised youth to self-discover, connect with others, and access unprecedented economic opportunity.

With this paper and succeeding works, I am seeking to pioneer the academic study of Hip Hop Marketing. This field is as old as the genre itself, evidenced in the cataclysmic event that is recognized as Hip Hop's "Day One," the Campbell family's "Back to School Jam" on August 11, 1973. Party promoter and high school student Cindy Campbell hired her older brother, the popular DJ Kool Herc to DJ a party in their building's community room. Charging 25 cents for ladies' admission for 50 cents for the "fellas," Cindy Campbell was intimately attuned to the potential value of Hip Hop as a commercial enterprise.

Fast forward a half-century and the highest grossing Hip Hop professionals are taking home annual earnings of eight or nine figures. How did Hip Hop rise from a Bronx inferno to become a global phenomenon worth billions of dollars and rising? Furthermore, by examining the topic of Teaching Hip Hop Marketing, we seek to uncover what roles current collegians can play in shaping the expanding Hip Hop marketplace.

"Alexa, build me a brand"
An Investigation into the impact of Artificial Intelligence on Branding

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Keywords
Branding, Artificial Intelligence, Machine Learning

Abstract

Brands are built by "wrapping mediocre products in emotive and social associations" (Galloway, 2016). Nike and Coca-Cola differentiate through the emotional benefits associated with their brand, not their products functional benefit - with the latter long considered the worlds' most valuable brand (Interbrand, 2016). This brand-building model has not been scrutinised in an environment where technology is a primary driver of organisational success, not merely a support function (E&Y, 2011). Artificial Intelligence (AI) has made "giant leaps" (Hosea, 2016) - algorithms fly our planes and beat us at chess. Organisational spending on AI is set to reach $47 billion by 2020 (Ismail, 2017) with many (32%) claiming its biggest impact will be in marketing. Marketing communities conject that AI will 'revolutionise' marketing (John, 2015) and while companies like Amazon appear to use a different model - utilising AI to fulfil customer's functional needs (commerce) - AI's impact on brand has seldom been explored in an academic context. This paper aims to establish the implementation of AI as a source of brand success - recommending to marketing professionals how to allocate resources to sustain brand effectiveness. Grounded theory research was used; semi-structured interviews were conducted and data collection/analysis was done concurrently. There were three major findings: AI can improve operational efficiency - improving the consistency in which a brand delivers their promise. Natural Language Processing (NLP) can improve elements of customer service. And Machine Learning enables personalised offerings, but organisations are limited by data quality/quantity and knowledge of the technologies applications.

Introduction

Whilst exact definitions differ, academics and industry have largely agreed that brands represent *'something more than a product'* (Ries, 2014) and that brand value is created when organisations invest, as Coca-Cola have done, in emotive and social advertising (emotional benefits) over product innovation and R&D (functional benefits). Recent years however, has seen the likes of Amazon, Google and Facebook overtake Coca-Cola to become the world's most valuable brands (Interbrand, 2016); all of whom are product-centric companies that are either investing significantly in, or centering their strategy around AI - *"We're moving from a mobile first, to an AI first company* (Google CEO) (Zerega, 2017). This paper explores this AI focused brand-building model in detail, establishing which AI technologies impact branding and how marketing professional can utilise AI to create brand value.

Literature Review

De Chernatony & Dall'Olmo Riley's (1998) systematic review of brand definitions, which analysed over 100 brand papers and interviewed twenty brand experts, has proven valuable to this paper and the work of six hundred others. The definitions most frequently cited by brand experts were *brand as a value system* (Thrift, 1997; Beckett, 1996); *as a personality* (Griggs & Alt, 1988) and *as a logo* (American Marketing Association, 1960). This review will discuss theory from a wider range of authors, not just the popular ones, ensuring a "*relatively complete consensus of the existing literature*" (Webster and Watson, 2002).

Brand as a logo

The American Marketing Association (1960) formally defined a brand as a "name, term, design, symbol, or a combination of them, intended to identify the goods or services of one seller and to differentiate them from competitors". Inspired scholars built on this, defining brand as an identifier (Wood, 2000) and a signal of a product's source (Kotler *et al.*, 1999) and of a resolver of the problem of product indistinguishability (Park *et al.*, 2011). Scholars argued this definition was too product focused (Crainer, 1995) and that it failed to account for the intangible elements of brand theory (Gardner and Levy, 1955). Riley (2009) criticised the literal wording of the definition, claiming that it was almost a replica of the US Federal Trademark Act's definition of 'trademark'. (Economides, 1988). Whilst AI experts have not directly criticised this theory, the progressive nature of their industry poses questions over the relevance of these definitions. Recent developments in machine learning has changed the way we search for products, using keywords or voice (Yoganarasimhan, 2014). This improved search functionality more accurately and more efficiently matches consumer needs with the brands that fulfil those needs – limiting the effectiveness of the brand as an identifier.

Brand as a Personality

Aaker (1997) defined 'brand personality' as the set of human characteristics associated with a brand. The concept has since seen significant contribution, with focus on the creation of value above and beyond a product's functional capability (Alt and Griggs, 1988; Blackston, 2000). Zinkhan *et al.* (1996) argued that consumers choose the brand whose personality best fits the personality they wish to project. Other scholars claim that functional brand benefits are 'easy to leapfrog' or 'emulate' (Lambin 1996; Chernatony, 2010), suggesting that creative communications and associations are better sources of brand differentiation (Lambin, 1996). AI experts argue that AI will drive product innovation (Domingos, 2015) and that because AI expertise is in short supply and high demand (Mizroch, 2015), that those who access the right talent can differentiate through AI-fueled product innovation (Woodward, 2017). Scholars also question the effective measurement of brand personality (Ehsan Malik and Naeem, 2013) and its effectiveness within different cultures with different personality traits (Garolera, 2001). Furthermore, this theory and much of its criticism was developed before the most recent developments in AI.

Brand as an Added Value

Like others, Jones (1986) defined brand as the non-functional benefits over and beyond a product's functional capabilities. Chernatony (2010) quantified the value of these benefits, theorising that whilst accounting for only 20% of a brand's costs, the non-functional brand elements contributed 80% of the impact on a customer's purchase decision. Chernatony (2010) claimed that non-functional benefits are often emotive values that are difficult to imitate. American Express for example, provide functional value (banking services) and an emotional value of 'prestige' - with the latter impacting purchase more. AI experts would argue that it's date (pre-1992) fails to account for recent AI milestones (Press, 2016) which would alter the 80/20 rule utilised in this theory.

Brand Themes and Synthesis Matrix

The above analysis of the literature indicates there are three major themes. One, brands contain a functional element, the purpose of which is to fulfil the functional needs of the customer. Two, brands contain a non-functional element, which is often the major source of brand differentiation. Three, the functional element of a brand is easily emulated or copied. However, although the literature establishes the importance of branding to businesses it generally fails to consider how these major themes are impacted by the emerging AI based technologies. This study pursued the following objectives:

Research Objectives
Identify which AI based technologies are impacting each of these brand themes.
Understand how the brand themes are impacted by the identified AI technologies.
Investigate how different organisations are using AI, and how this has impacted the strength of their brand.

Research Approach

An initial review of the literature highlighted the absence of any existing theory, hypothesis or models that directly addressed, or combined, the concepts of brand and AI, deeming an exploratory, inductive research approach - whereby concepts, insights and themes emerge from the collection and analysis of raw data (Taylor, *et al.,* 2015) - most suitable. It began with vaguely formulated questions and added data as and when it became useful. Thus, it was likely, due to the size and openness of the topic, that additional themes and sub-themes would emerge (Taylor, *et al.*, 2015) and in turn, be investigated with further research.

Research Methodology

This study used a mixed-method research methodology, largely consisting of qualitative, semi-structured interviews with experts in the studies core fields – brands and AI; a data collection method Taylor *et al.* (2015) suggested is the most suitable to answer the broad, and technically complex questions posed in this study's first and second research objectives. The initial research findings informed, and directed the next phase of data collection and analysis (Saunders and Lewis, 2014) which in this case, due to the nature of the third research objective, used a mixture of qualitative and quantitative research techniques.

As a cross sectional study, critics may argue that the study's results may become less relevant over time, especially given the speed of technological development and more specifically, the fast rate of change within the field of AI. Whilst these critics are well founded, the time constraints imposed on this study do not allow for a comprehensive longitudinal study, which most critics would argue is more suitable. To increase its future applicability, interview questions were designed to gain an understanding of both the current and potential impact of AI on brands. Whilst these will be merely predictions, they will provide some insight into how AI's impact on branding may change over time.

This study's three research objectives were understood and answered chronologically as the understanding of one research objective was dependent on the findings from the previous objective. I.e. we first need to know *which AI technologies* will impact brand before we understand *how those AI technologies* will impact brand. This is deemed as a grounded theory approach with constant comparative analysis - a process of concurrent data collection and analysis whereby the findings from the first phase of analysis informs subsequent data collection (Glaser and Strauss, 1967) - a suitable strategy for this research. It was likely, given the complexity of the topics, that the authors, having analysed the initial interviews, had to return to the field to collect additional data on the themes that have emerged from prior analysis. This cyclical process continued until theoretical saturation were reached (Glaser and Strauss, 1967).

Semi-structured, face-to-face interviews allowed for the collection of a richer set of data upon which themes could emerge, providing depth of meaning where experts are more likely to participate over an in-depth questionnaire (Fusch and Ness, 2015). The lack of rigidity in semi-structured interview structures allowed the discussions to lead into areas the authors had not previously considered – but areas that will likely be relevant in addressing the complex research objectives posed in this study (Schindler and Cooper, 2008). Moreover, semi-structured interviews allowed the authors to ask exploratory and explanatory probing questions (Schindler and Cooper,

2008) which, given the technicality of the two topics, and the current knowledge gap between the author and the experts, provided a deep understanding of the relevant phenomena.

Initial interviews were conducted with Daniel Hulme and John Garnett – experts in AI and Brand respectively, and whose combined insights helped address the research objectives. Additional themes emerged from the analysis of the initial interviews. Firstly, the impact of Natural Language Processing (NLP) on customer service and secondly, the impact of Machine Learning on personalisation. Both themes, which relate to two technologies that form part of the overall AI stack (a set of technologies) were explored in further detail by interviewing experts in their respective fields - Alex Lilburn (NLP) and Alistair Ferag (Machine Learning).

Since completing his doctorate in computational complexity (AI), Daniel has founded Satalia, an organisation that builds end-to-end AI solutions for clients. Daniel runs a Business Analytics Master's (MSc) in the Computer Science department at University College London (UCL); where he teaches Machine Learning, Data Science and AI. Daniel was selected for his deep technical knowledge and his experiences of how AI can be applied to create value for organisations and their customers. His insights provided an understanding into which AI technologies are most impactful, and how these technologies are affecting brand development in the organisations he works with.

John Garnett was selected for his vast experience in the brand-focused FMCG industry; with expertise in the development and management of brands using traditional brand theory, i.e. those discussed in the literature. Garnett was Managing Director for Heinz UK, worked at P&G for twelve years and now runs his own brand consultancy. Garnetts' insights helped assess the strength of current brands, and help the authors understand the relative importance of the elements of a brand that are most impacted by AI.

Alistair, a Senior Data Scientist at Satalia, has vast experience building machine learning systems across the retail, financial and technology sector. He has a background in Economics, and a MSc in Computer Science from University College London. He has recently developed a price optimisation system for a hospitality company, and a customer churn analysis system for a B2B hardware distributor. Ferag's insights, given his academic background and practical experience, provided a deep understanding of the applications and challenges that surround machine learning in industry.

Alex Lilburn is an expert in NLP - with qualifications in Psychology, Law and a MSc in Business Analytics from UCL. Lilburn has extensive experience in the development of systems that can be interacted with through natural language (text or voice.) He also has experience building applications using 3rd party NLP tools - and thus was able provide insights around the accessibility of NLP, it's limitations and its applications for a modern brand.

Data Analysis and Coding

Researchers are often confused when analysing qualitative data, and many use coding to quantify it in a way that allows it be statistically analysed (Miles and Huberman, 1986). A different approach is to use coding to decipher or interpret themes and categories in qualitative data (Böhm, 2004) – before naming and discussing them in more detail. Given that the aim of this study is to assess the underlying impact of AI on brand, and not quantitatively measure this impact, this non-mathematical approach to coding is more suitable.

Open coding is the initial stage of data analysis. Here, data is broken down analytically and basic concepts are derived from the text (Böhm, 2004). Strauss and Corbin (1998) advise the analysis of short textual passages (line-by-line) to achieve an extensive theoretical coverage. Böhm (2004) clarified that whilst open coding generates basic concepts, these concepts will likely be crude to begin with. Axial coding is the second stage of data analysis and involves clustering the *concepts* together to form more meaningful *categories* – upon which conclusions can be drawn (Böhm, 2004). This typically begins by analysing the concepts in more detail to establish how they relate to each other i.e. it may be found that two different AI technologies provide the same benefit to a brand, in which case the technologies would be *concepts* and the benefit to the brand would be the *category* that relates them. A multi-staged data analysis process was selected to ensure that the findings from one interview (AI) could be related, and assessed against the findings from the other interview (Brand) (Böhm, 2004). Given the differences in the interviewees expertise, and thus the language used by the brand and AI experts – it would not have been possible to find commonalities in the two topics had a single stage of data analysis been conducted.

Discussion

Brands are multifaceted and highly complex. There is no singular, proven recipe for brand growth and no universal agreement of how brands succeed. Thus, it would be implausible to attempt to directly attribute AI, and the benefits it provides, to the success of brands. It cannot be said for certain that brands who adopt AI will win, and those who do not will lose, and this research makes no such claim. This research adds value by providing insight into how AI will possibly impact the individual components of brand (service, product etc.) and through discussion with experts, and an analysis of the literature, attempts to identify the impact of these components on a brand's success. The findings indicated that whilst AI will undoubtedly impact all components of brand, its effects are currently the most profound on three brand components*; fulfilling on brand promise, customer service and personalisation.*

Fulfilling on brand promise with AI

The findings suggest that 'end-to-end' or 'full stack' AI - *"The acquisition of data, the extraction of insights and decision-making that adapts and improves over time" (Hulme, 2017)* - has the potential to vastly improve an organisation's operational efficiency which in turn, can improve the consistency in which they deliver their brand promise. Both AI and brand experts agreed that an organisation delivers on their promise when '*they do what they say they are going to do'* (Garnett, 2017). Hulme (2017) argues that this is largely due to the operational efficiency that AI enables - *"You make better use of your resources; you can improve customer satisfaction"* (Hulme, 2017).

The existing literature suggests that the success of brands is largely dependent on its ability to differentiate (Chernatony, 2010). The clear majority of literature shares the view that the most effective source of brand differentiation is through the non-functional benefits it provides (Kapferer, 1992; Alt and Griggs, 1988) - not the functional benefits that are '*easily replicated' or 'easily imitated'* (Lambin, 1996). This suggests that the impact of brand promise, and thus the indirect impact of end-to-end AI on a brand's success is dependent on whether that promise is functional or non-functional.

Functional Benefits Can Provide Differentiation

Whilst there are likely to be some examples of brands that promise non-functional benefits, such as luxury (Silverstein and Fiske, 2003), the findings suggest that brand promises typically provide functional benefits. Hulme (2017) gives examples of *'delivering packages on time'* (Retailer) and '*providing better phone signal'* (Telecommunications) – both of which are functional and provide no non-functional benefits to its customers. The findings of this paper differ from those found in the literature, specifically in regards to the effectiveness of a functional benefit as a brand differentiator. Given that most brand promises are functional, the literature would suggest that improving its consistency is not an effective way to differentiate a brand. However, the findings of this research suggest differently, with Garnett (2017) arguing that *"brand promise is the key thing that differentiates you"*; claiming that "*very few people can argue that they always deliver on their brand promise, all the time"* – a statement which directly opposes the argument, made in the literature, that functional benefits are easily copied. Hulme (2017) claimed that the AI that enables brands to consistently fulfil their promise is also difficult to replicate – *"understanding how to architect these complex systems and include all of the complex business nuances is very difficult to do"*. These findings are more aligned with the literature that argues a brand is a *'risk reducer'* (Assael, 1995) with the improved consistency of brand promise reducing the *'functional performance risks'* that are often associated with a brand (Bauer, 1960).

Consistency is Not Enough

Whilst these findings suggest that AI can improve the consistency of a brand promise, and that a brand promise is a strong source of differentiation, it was also found that the consistent fulfilment of a promise is not the only requirement needed for a promise to be effective. Garnett (2017) argued that a brand promise is made up of three elements – *"clarity, consistency and organisational alignment."* This research explored the impact of AI only on the *consistency* in which it can be delivered, and it can only be conjected that its impact is less profound on the other two elements needed to differentiate on a brand promise. Thereby it is recommended that further research should build on where this research was limited, evaluating the impact of AI on the other elements of a brand promise (clarity, alignment). Only then can it be said that AI, in solidarity, can lead to a brand promise that acts as a source of brand differentiation.

NLP's Impact on Customer Service

"Customer service is fundamental to pretty much any brand" (Garnett, 2017). Primary sources and much of the existing literature agree that customer service is essential to the foundations of any brand in the modern world (Chernatony, 2010). The research found that Natural Language Programming (NLP) a sub component of AI, and described as *"taking unstructured data, text, speech, and generating structured data which has meaning" (*Lilburn, 2017) – has the potential to strengthen an organisation's customer service and overall brand experience. Expectations of customer service are rising in three areas - *"it's timeliness, it's accessibility and its proactiveness"* (Garnett, 2017). Further to this, Garnett (2017) highlighted how the partial or full automation of responses to customer enquiries can increase both the efficiency and accessibility of a brand's customer service. Garnett (2017) outlined how NLP technology was adopted by KLM (airline) - *"They programmed a chatbot to be able to deal with most queries*" (Garnett, 2017).

Chernatony (2010) argued that improved, or *enhanced* customer service, which can be obtained with NLP, is an *'expected benefit'*. One that, much like functional benefits, does not provide a sustained source of brand differentiation. This implies that good customer service is potentially just a threshold capability (Teece, et al., 1997) that organisations must have to stay competitive. Once again, the literature suggests that the impact of customer service, and thus the indirect impact of NLP on the overall success of a brand, is somewhat limited.

Whilst it cannot be said that customer service is an effective source of differentiation, findings from both primary and secondary research suggest its impact, and thus the impact of NLP on the overall success of a brand, is larger than the literature implies. Garnett (2017) claims that *"customer service is fundamental to the delivery of any product or service"*, whilst a recent report published by (American Express, 2011) highlighted that effective customer service, or lack of, can be the difference between winning and losing customers. Here it was found that 61% of customers will switch to a competitor when they experience bad customer service, and that 90% are happy to pay more to ensure a good customer service.

NLP Can Better Meet the Rising Expectations of Customers

Given that the literature labels customer service as an 'expected' value, it was surprising to discover that 62% of all customer service interacts fails to meet expectations (American Express, 2011). Garnett (2017) claims that expectations are rising in three key areas of customer service – its *"timeliness, accessibility and proactiveness*." The KLM chatbot has had a profound impact on the effectiveness of its customer service – improving response rate by 20% *(timeliness)*, increasing the number of customer queries by 40% *(accessibility)* and enabling the automated sending of boarding passes and flight updates *(proactiveness)* (Caffyn, 2016).

Data is Everything

Lilburn (2017) and other primary sources stated that NLP technology is starting to become commoditised - *"Wit is third party NLP engine…which makes it easy to setup NLP models."* (Lilburn, 2017), *"We're seeing the commoditisation of machine learning tools and data platforms."* (Hulme, 2017). However, experts warned that the quality and quantity of training and customer data the technology has access to is arguably more important than the technology itself – implying that these technologies need to be trained to become fully effective bots - "*You can't build a model with a small amount of data, or with bad data."* (Ferag, 2017). This indicates that despite increasing access to the same NLP technology, brands do not have immediate access to the enhanced customer service it has the potential to provide.

Speed is King

Lilburn (2017) elaborated on how brands can access the required mass of quality training data, and emphasised the importance of *"moving early"* to take full advantage of NLP – enabling it to become autonomous, effective and fit for purpose. This research highlights that the speed in which brands adopt these technologies is by far the largest determinant of their future effectiveness, and thus the effectiveness of the solutions they empower. Marc Benioff, Founder/CEO of Salesforce, regularly claims that *"speed is the new currency of business"* (Frain, 2016) – a claim highly applicable to NLP and one that suggests that the brands who are early to adopt NLP will be the ones that reap the most benefit from it.

Machine Learning and Personalisation

Machine learning involves *"predicting something about an entity that it has not been exposed to before"* (Hulme, 2017). Ferag (2017) gave practical examples of machine learning in industry, suggesting that the most common applications were "*Recommendation systems that show you what to buy* (Amazon) *or what to watch* (Netflix*)*." Secondary research into the effectiveness of these systems suggest that the level of personalisation machine learning enables has had a hugely positive impact on those brands that are investing in it. Latest figures estimate that 35% of all Amazon purchases (Krawiec, 2017) and 80% of all video watched on Netflix (Gomez-Uribe and Hunt, 2016) come from their recommendation engines. Unsurprisingly, Netflix continue to emphasise the importance of personalisation on their business - *"we develop and use our recommender system because we believe it is core to our business"* (Gomez-Uribe and Hunt, 2016).

Machine learning improves the level of personalisation that brands can achieve. This almost certainly has a positive impact on the success of the overall brand. A large, and well-established body of literature argues that successful brands are those that have personalities (Aaker, 1997). McKenna (1991) followed a similar line of thought, suggesting: *"a successful brand can be charecterised as having a strong relationship between a customer and a company."* – and it reasonable to assume that this relationship can be developed through personalised communications and product offerings. Given that scholars stress the importance of '*brand as a relationship*' (Aaker, 1997), it is appropriate to suggest that machine learning, and the personalisation that it enables, has a positive impact on the success of a brand. This impact is currently unquantifiable, and is recommended that further research should explore this.

Brand expert Garnett (2017) highlighted the rising demand for personalisation: *"people want greater and greater levels of personalisation"*. Secondary research implied that brands are starting to realise the importance of meeting this demand - with 79.3% of marketers saying it was either *"important"* or *"very important"* to their organisation (Saville, 2016). Despite rising demand and a clearly positive impact on brand – the latest data shows a mismatch between the number of brands that acknowledge the importance of personalisation (79.3%) and the number of brands who are actually implementing personalisation strategies (42%) (Saville, 2016).

This research becomes applicable when considering the reasons for this mismatch. Secondary research suggests that the top three barriers to the adoption of more sophisticated personalisation strategies are: *"lack of internal resource (45%), lack of technology (34%) and inaccurate data (32%)"* (Saville, 2016). Ferag (2017) claimed that machine learning was the *"next wave of standardisation"* – implying that the technology, and the level of personalisation it enables, is becoming commoditised and accessible to all brands.

Knowledge is the Limiting Factor for Brands

Whilst the commoditisation that Ferag (2017) describes is of interest, it is the source of the claim (Ferag) that arguably sheds more light on why machine learning is absent from much of industry, despite its increasing availability. Ferag (2017) is a practicing data scientist, making him a credible source to state what technology is available, and what it can be used for. Most marketers however, do not have a technical background and thus are not aware of how emerging technologies can be utilised to suit their organisational needs. This suggests that what is inhibiting brands from achieving greater levels of personalisation is not the lack of technology itself; but a lack of awareness that the technologies exist and a lack of understanding of how to utilise them to achieve greater levels of personalisation. Most brands, in simple terms, are technologically naïve and are not able to invest in, or implement technology they do not fully understand.

Research Limitations

It is likely that the findings found in this cross-sectional study, given the speed of technological development and the rate at which AI is improving, will be considerably less relevant in a year's time than they are today - limiting its longevity. Much hype, speculation and confusion surround the topic of AI, with numerous experts having differing opinions of what it is and what it can enable. This research drew its definition of AI from a highly regarded, yet small sample of AI experts - potentially limiting the study's generalisability. Finally, this study was constrained by time - and thus could only explore a small sample of AI technologies in the depth required to generate meaningful findings.

Further Research

This research took a sample of AI technologies (NLP, Machine Learning) and assessed their impact on a range of brand elements (customer service, personalisation). Future research should explore the impact of other AI technologies (machine vision, automation) and assess their impact on a wider range of brand elements (loyalty, communications, pricing) - establishing how else AI can be used to create brand value. This research focused on the impact of AI on functional brand benefits - *how can AI be used to build better products? and can those products act as sources of differentiation?* Future research should explore impact of AI on the emotive elements of a brand I.e. *Can an AI be creative? Can AI design emotional advertising?*

References

Aaker, D. A., 1996. Building strong brands. s.l.:Free Press.

Aaker, J., 1997. Dimensions of Brand Personality. *Journal of Marketing Research*, 34(3).

American Marketing Association (1960). Marketing Definitions: A Glossary of Marketing Terms, Chicago, American Marketing Association.

Assael, H., 1995. Consumer Behavior and Marketing Action. s.l:South-Western College Publishing.

Bauer, R., 1960. Consumer Behavior as Risk-Taking. Dynamic Marketing for Changing World.

Beckett, E., 1996. The relevance of brands cannot be underestimated.

Blackston, M., 2000. Observations: Building Brand Equity by Managing the Brand's Relationships. *Journal of Advertising Research,* Volume 40.

Böhm, A., 2004. Theoretical Coding: Text Analysis in Grounded Theory. A companion in Qualitative research.

Caffyn, G., 2016. How KLM uses artificial intelligence in customer service. [Online] Available at: https://digiday.com/uk/klm-uses-artificial-intelligences-customer-service/[Accessed 7 February 2017].
Chernatony, L. d., 2010. Creating Powerful Brands. s.l.:Routledge.
Crainer, S., 1995. The Real Power Of Brands Making Brands Work For Competitive Advantage: Crainer, Stuart Stock Image View Larger Image The Real Power Of Brands Making Brands Work For Competitive Advantage. London: Pitman Publishing,.
De Chernatony, L. & Dall'Olmo Riley, F., 1998. Defining a 'Brand': Beyond the Literature with Expert Interpretations. *Journal of Marketing Management*, Volume 14, pp. 417-443.
Domingos, P., 2015. The Master Algorithm: How the Quest for the Ultimate Learning Machine Will Remake Our World. London: Penguin UK.
E&Y, 2011. Creating an effective hybrid IT model, s.l.: s.n.
Economides, N. S., 1988. The Economics of Trademarks. *TMR,* Volume 78.
Ehsan Malik, M. & Naeem, B., 2013. Aaker's Brand Personality Framework: A Critical Commentary. *World Applied Sciences Journal*, Volume 24, pp. 895-899.
Express, American, 2011. 2011 Global Customer Service Barometer, s.l.: s.n.
Ferag, A., 2017. Impact of AI on brand [Interview] 2017.
Frain, M., 2016. Speed is the new currency, Spend it wisely. [Online] Available at: http://www.adnews.com.au/opinion/speed-is-the-new-currency-spend-it-wisely[Accessed March 2017].
Fusch, P. I. & Ness, L. R., 2015. Are We There Yet? Data Saturation in Qualitative Research. The Qualitative Report, 20(9).
Galloway, S., 2016. Death of the Industrial Advertising Complex. [Online] Available at: https://www.l2inc.com/death-of-industrial-advertising-complex/2016/blog[Accessed 2017].
Gardner, B. & Levy, . S., 1955. The product and the brand.
Garnett, J., 2017. Impact of AI on brand [Interview] 2017.
Garolera, J., 2001. Consumption Symbols as Carriers of Culture: A Study of Japanese and Spanish Brand Personality Constructs. *Journal of Personality and Social Psychology*, Volume 81.
Glaser, B. G. & Strauss , A. L., 1967. The Discovery of Grounded Theory. s.l.:AldineTransaction.
Gomez-Uribe, C. A. & Hunt, N., 2016. The Netflix Recommender System: Algorithms, Business Value, and Innovation. *ACM Transactions on Management Information Systems*, 6(4).
Griggs, S. & Alt, G., 1988. CAN A BRAND BE CHEEKY? *Journal of Marketing Practice: Applied Marketing Science*, Volume 6.
Hosea, M., 2016. How brands are using artificial intelligence to enhance customer experience. [Online] Available at: https://www.marketingweek.com/2016/05/18/how-brands-are-using-artificial-intelligence-to-enhance-customer-experience/[Accessed 2017].
Hulme, D., 2017. Impact of AI on brand [Interview] 2017.
Interbrand, 2016. Interbrand - Best Global Brands. [Online] Available at: http://interbrand.com/best-brands/best-global-brands/2016/ranking/[Accessed 2017].
Ismail, N., 2017. *Revenue for cognitive/AI systems to top $47 billion by 2020.* [Online] Available at: http://www.information-age.com/revenue-ai-systems-top-47-billion-2020-123465508/
John, G., 2015. *Machine learning: How AI will revolutionise the marketing industry.* [Online] Available at: http://www.thedrum.com/opinion/2015/06/02/machine-learning-how-ai-will-revolutionise-marketing-industry
Jones, John P. (1986). What's in a name? Aldershot, Gower.
Kapferer, Jean-Noel (1992). Strategic Brand Management, London:Kogan Page.
Kotler, P., Armstrong, G., Saunders, J. & Wong, V., 1999. Principles of Marketing. 2 ed. London: Prentice Hall Europe.

Krawiec, T., 2017. The Amazon Recommendations Secret to Selling More Online. [Online] Available at: http://rejoiner.com/resources/amazon-recommendations-secret-selling-online/[Accessed 2017].

Lambin, J.-J., 1996. Strategic Marketing Management. s.l.:McGraw-Hill.

Lilburn, A., 2017. Impact of AI on brand [Interview] 2017.

McKenna, R., 1991. Marketing Is Everything. *Harvard Business Review.*

Miles, M. B. & Huberman, A. M., 1986. Review: Qualitative Data Analysis: A Sourcebook of New Methods by Matthew B. Miles; A. Michael Huberman. Educational Evaluation and Policy Analysis, 8(3).

Mizroch, A., 2015. *Artificial-Intelligence Experts Are in High Demand.* [Online] Available at:
https://www.wsj.com/articles/artificial-intelligence-experts-are-in-high-demand-1430472782 [Accessed 2017].

Park, W., Eisingerich, A., Pol, G. & Whan Park, J., 2011. The role of brand logos in firm performance. *Journal of Business Research.*

Press, G., 2016. A Very Short History Of Artificial Intelligence (AI). [Online] Available at: https://www.forbes.com/sites/gilpress/2016/12/30/a-very-short-history-of-artificial-intelligence-ai/#7b11bd1b6fba

Ries., A., 2014. Having a Better Brand Is Better Than Having a Better Product. [Online] Available at: http://adage.com/article/al-ries/a-brand-a-product/294829/[Accessed 2017].

Riley, F. D., 2009. Editor's Introduction: Brand Management, London: s.n.

Saunders, M. & Lewis, P., 2014. Doing Research in Business and Management. s.l.: Financial Times/ Prentice Hall - M.U.A.

Saville, A., 2016. Personalisation in marketing – where's the line between 'cool' and 'creepy'?, s.l.: s.n.

Schindler, P. S. & Cooper, D., 2008. Business Research Methods. s.l.:McGraw-Hill,.

Silverstein, M. J. & Fiske, N., 2003. Luxury for the Masses. Harvard Business Review

Strauss, A. & Corbin, J. M., 1998. Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory. s.l.:SAGE Publications.

Taylor, S. J., Bogdan, R. & DeVault, M., 2015. Introduction to Qualitative Research Methods: A Guidebook and Resource. 4th ed. s.l.:John Wiley & Sons.

Teece, D. J., Pisano, , G. & Shuen, A., 1997. Dynamic capabilities and Strategic Management. *Strategic Management Journal,* 18(7).

Thrift, J., 1997. What's in Store for Brands. Marketing Magazine.

Webster, J. & Watson, R., 2002. Analyzing the Past to Prepare for the Future: Writing a Literature Review. MIS Quarterly, June, 26(2), pp. 13-24.

Wood, L., 2000. Brands and brand equity: definition and management. Management Decision, 38(9), pp. 662-669.

Woodward, S., 2017. Artificial Intelligence Fuels Consumer Product Innovation At Ces 2017. [Online] Available at: http://blog.stablekernel.com/artificial-intelligence-fuels-consumer-product-innovation-at-ces-2017 [Accessed March 2017].

Yoganarasimhan, H., 2014. Search Personalization using Machine Learning, Washington: s.n.

Zerega, B., 2017. *AI Weekly: Google shifts from mobile-first to AI-first world.* [Online] Available at: https://venturebeat.com/2017/05/18/ai-weekly-google-shifts-from-mobile-first-to-ai-first-world/

Zinkhan, G., Haytko, D. and Ward, A. (1996) "Self-concept theory", *Journal of Marketing Communication,* 2 (1): 1-19

Implementation of Supply chain financial solutions in Indian companies

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Keywords
Supply chain finance, AHP, Supply chain management

Abstract

Indian companies started adopting Supply chain finance solutions in their supply chains recently in order to reduce the payment defaults and to simplify the bill settlement process. This work focuses on identifying the barriers in Supply chain finance (SCF) adoption in Indian companies. A total of 37 barriers under 6 categories has been identified through an extensive literature review and consultation with industrial experts. Results shows that Financial and Information technology barriers are prominent in SCF adoption.

The role of social media marketing on brand equity: a customer-based perspective of mobile service providers in Egypt

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Keywords
Social Media Marketing, Brand Equity, Social Media Practices, Online Communities, Interaction.

Abstract
The purpose of this paper is to explore the dimensions of Social Media Marketing, which might be influencing Brand Equity of mobile services providers in Egypt from a customer perspective. It also aims at defining the themes, categories and codes of Social Media Marketing. A qualitative analysis had been conducted to investigate such dimensions using NVIVO and results show that Social Media Marketing dimensions of Mobile Service providers in Egypt are: Online Communities, Content Sharing, Interaction, Accessibility and Credibility.

1. Introduction

Due to the continuous and rapid development of information technology, the internet has become an important tool for people to communicate online and continue to receive more services and functions. In addition, owing to the rise of the Web 2.0 model, social network services have become a simple and universal concept in the internet environment (Yang & Lin, 2014).

Therefore, Social networking sites (SNSs) is important and now form a key area of academic research (Constantinides et al., 2013). The explosive growth of users and new platforms, along with increased internet access capabilities offered by mobile devices, affects the behavior and life of people from almost every socio-demographic group around the world. This new medium has dramatically transformed the marketing world and makes social media marketing a significant challenge for the private and public sectors (Belch and Belch, 2014).

Social Media is used in many services, such as mobile network services providers, where customers could interact with the service providers and know about new products and/or services, promotions, offers and several other issues about the providers by interacting online. Attracting prospective customers is a critical success factor for mobile network service providers and marketing can support this activity (Assimakopoulos, et al., 2017). However, the variation in such mobile service providers poses a number of issues and challenges for marketing managers. In their effort to implement a coherent marketing plan that will identify the right segment, providers must develop marketing strategies targeted at the correct customer segment.

Therefore, this research aims at exploring the social media marketing practices which providers have to consider while developing their marketing strategies. The next section will present a review of literature, the third section will provide the methodology that the researcher used for conducting this research. The fourth section will represent the empirical study and findings obtained after analyzing the data collected, while the fifth section represents the last section of the research conclusion and recommendations.

2. Literature Review

Social media is defned as: “a group of Internet based applications that build on the ideological and technological foundations of Web 2.0 and that allow the creation and exchange of user generated [content]” (Kaplan and Haenlein, 2010). Social media platforms include social networking tools, with the most popular being Facebook and Twitter, professional networking sites, such as LinkedIn, media sharing sites, such as YouTube and Instagram, commerce communities, such as Amazon, discussion forums and blogs (Agarwal and Yiliyasi, 2010). The benefits of social media include facilitating strategy, cost reduction, information collection, database enhancement, service delivery (Barnes, 2010) and expanded geographic reach (Wright et al., 2010). These benefits are facilitated by the following characteristics.

Social media facilitates the creation of content that can be shared internally (employees-to-employees), externally (consumers-to-consumers or other external stakeholders) and across organisational boundaries (consumers-to-organisation). This, however, presents an implementation challenge to organisations with traditional hierarchies and centralised control structure (Kaplan and Haenlein, 2010). Social media enables a close link and ease of customer movement between alternate digital channels, such as the company website and Facebook. The digital environment allows consumers to move between information search channels, such as a search engine and the website where purchases can be made with greater ease. In terms of implementation, however, integrating consumer processes has organizational ramifications. This is because linking different functions and processes changes both the roles of and relationships between functional areas, such as marketing, advertising, sales and IT. As a result, some organisations will need to change their structure, while others will manage increasing levels of inter-functional complexity as customer inter-facing processes are realigned (Mangold and Faulds, 2009).

Since the late 1990s, several different types of social media sites have been launched, some continue to exist and witness an epic proportion of growth in terms of the number of users and the quantity or volume of information exchanged, while others have faltered and closed. Failure of many of these sites can be attributed to its inability to garner acceptance and popularity among the target users. According to the most popular social media site, Facebook, the number of active users in 2011 has crossed 800 million. Social media platforms facilitate the collation of new types of information (Brooks et al., 2014). Online communities, such as Dell Idea Storm, enable the capturing of "naturalistic" information expressed in consumers' own words and, hence, allow further insight to information collected through overt and formal traditional market research. Organic information can be valuable in guiding product innovation and service improvements.

Social media could be considered as innovative applications, platforms or portals in the internet, including a high potential for diverse designs in which the active configuration of contents through the cooperative participation between user and provider, but more importantly, among users, plays a major role in establishing and maintaining their permanent interconnectedness and sharing as the main goals (Wirtz & Göttel, 2016). The emergence of new media has led to a paradigm shift in many companies' marketing practices from a traditional brand or "product-driven" approach to a contemporary "customer-driven" marketing method (Rust et al., 2011). This shift is due in large part to the pervasive use of new media and the capability of new media technologies to put customers and companies in constant contact. New technology and social media are by nature consumer-driven: unlike traditional media, content generated through these platforms is largely created, maintained, and shared by and among consumers and communities (Bernhardt et al., 2011).
These widespread, electronic, multi-directional interactions have not been witnessed previously and give consumers the ability to directly communicate their product needs and feedback to companies that are eager to listen. Moreover, new media are often perceived by consumers as more trustworthy sources of information for products and services than corporate-sponsored communications transmitted via the traditional elements of the promotional mix. In short, social marketers can now leverage new media to engage large numbers of consumers more deeply and closer to the right place and right time than ever before (Bernhardt et al., 2012).

Marketing and advertising are experiencing a well-documented and revolutionary upheaval in both form and function in light of a rapidly changing communications technology, particularly as it relates to the emergence of popular social media such as Facebook, Twitter, LinkedIn and YouTube (Scott, 2011). These radical changes are significantly impacting numerous industries, companies, brands, products and consumers (Hanna et al., 2011). TAM has been revised in many studies to fit a particular context of technology being investigated. Technology Acceptance Model (TAM) was first developed by Davis (1986) so as to figure out the usage behavior of computer technology.

TAM specifically explained the determinants of computer acceptance that are general and capable of explaining user behavior across a broad range of end-user computing technologies and the user population (Davis et al., 1989). Intention is determined by two constructs: individual attitudes toward the behavior and social norms or the belief that specific individuals or a specific group would approve or disprove of the behavior (Rauniar, et al., 2014).

3 Research Methodology

Qualitative data collection techniques have been used in this research through applying the interview form as the data collection method. A qualitative research technique is employed by researcher as they relate to their field of interest. Myers (2013). The qualitative research method was developed in the social sciences to help researchers investigate social and cultural phenomena. Qualitative research includes action research, case study research and grounded theory. The data sources for qualitative research include observations, interviews, and questionnaires. The study followed a semi structured interview method for collecting information from customers of using social media for their mobile networks. Semi-structured interviews were conducted on a face-to-face basis (Flick, 2014) for the purpose of the current research to enable probing questions to be asked in order to maximize data richness (Ashworth, 2008).

Thus, a face-to-face meeting is handled with users of social media who are customers of different mobile networks using open-ended questions which allow for a discussion with the interviewee. The current research discussed the questions in appendix through a designed semi-structured interview directed to customers of mobile networks who are using social media in their marketing practices. This study applied the interview tools as one of the data collection tools for the purpose of the current research. The data analysis had been conducted using NVIVO, as one of the popular software's for qualitative analysis.

For the purpose of qualitative analysis, the content analysis had been applied. Content Analysis is an analytical technique that codes and categorizes qualitative data in order to analyze them quantitatively. Content Analysis has a long history that illustrates its use as an approach spanning qualitative and quantitative methods. There are numerous definitions of Content Analysis, which often draw on an early definition by Berelson (1952:18): 'Content analysis is a research technique for the objective, systematic and quantitative description of the manifest content of communication.'. This is an important definition because it includes key concepts that help us to understand this technique and differentiate it from others discussed earlier. These key concepts are 'objective', 'systematic', 'quantitative description' and 'manifest content'. The results are shown in the following section.

4 Results and Findings

This section shows the results of interview analysis, where it was found that most customers are using Face Book as a Social Media platform. Some others are using Instagram and Twitter but still Face Book is the most frequently used one. Also, they express that Face Book is mostly used as it is the most user-friendly tool which is easy to use and become very useful now in communication through messenger and posts. Customers like to interact both ways of publicly and privately, which is easily achieved through Face Book.

In addition, customers like to keep interacting together but they have the option to block and report spam at any time, which is observed as easy to happen and secure through Face Book. They can probe this to the level of 90% of the events they face through Face Book relative to very low percentages given to other platforms. So, customers can use other platforms but they cannot rely on them and ignore Face Book usage. Thus, they use different platforms concurrently with Face Book. Besides, customers mentioned that they can use social media in sharing contents online, interacting together whether in the private form or in the public form. They add that Social Media is an easy way of accessing information and it is in the meantime a credible way. The following figure shows the main themes extracted from the interviews for social media practices.

Figure 1: Social Media Themes

The online communities were determined as customers trust the strategy of some Social Media Platform. They are excited with being engaged to Social Media, especially that it is managed with the expected level of administration. Figure 2 shows the main categories found in the interviews referring to good online communities for Social Media, especially Face Book. Therefore, the main categories of online communities were shown to be Strategy, Engagement, and Administration.

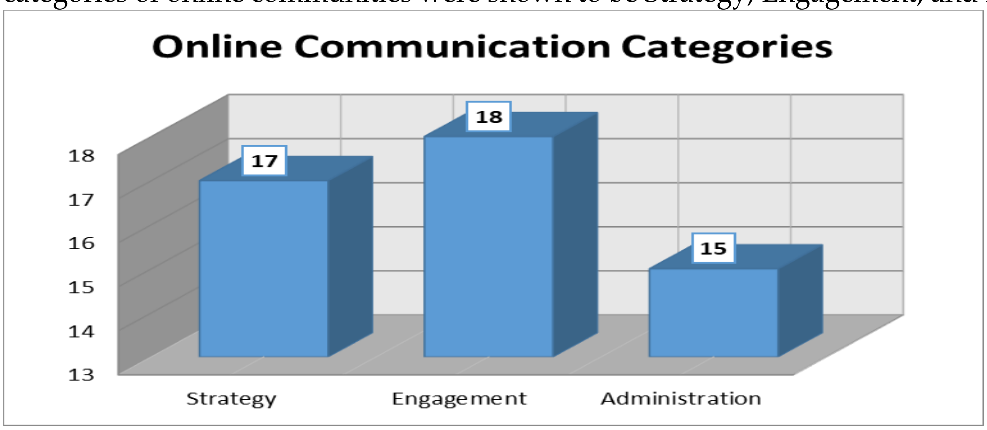

Figure 2: Online Communities Main Categories

The content sharing was the second theme determined as customers like the appearance of the contents, as well as being able to restrict people they have as members on the same platform. They like sharing through hyperlinks and private exchange. Figure 3 shows the main categories found in the interviews referring to good content sharing for Social Media,

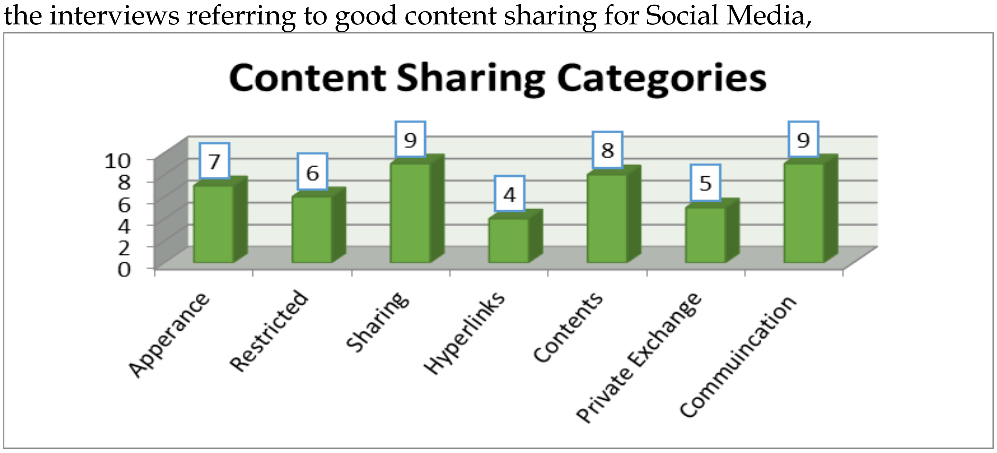

Figure 3: Content Sharing Main Categories

Interaction was the third theme determined as customers like the responsiveness, data shared, group exchange of information and being enjoying the contents shared. Figure 4 shows the main categories found in the interviews referring to good interaction for Social Media platform.

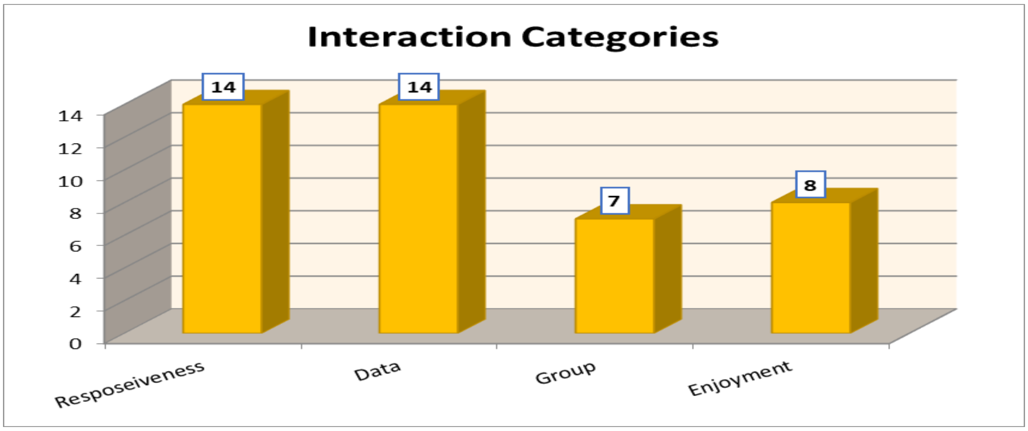

Figure 4: Interaction Main Categories

Accessibility was the fourth theme determined as customers like the easiness of access, its usefulness, convenient contents and its availability. Figure 5 shows the main categories found in the interviews referring to good Accessibility for Social Media platform.

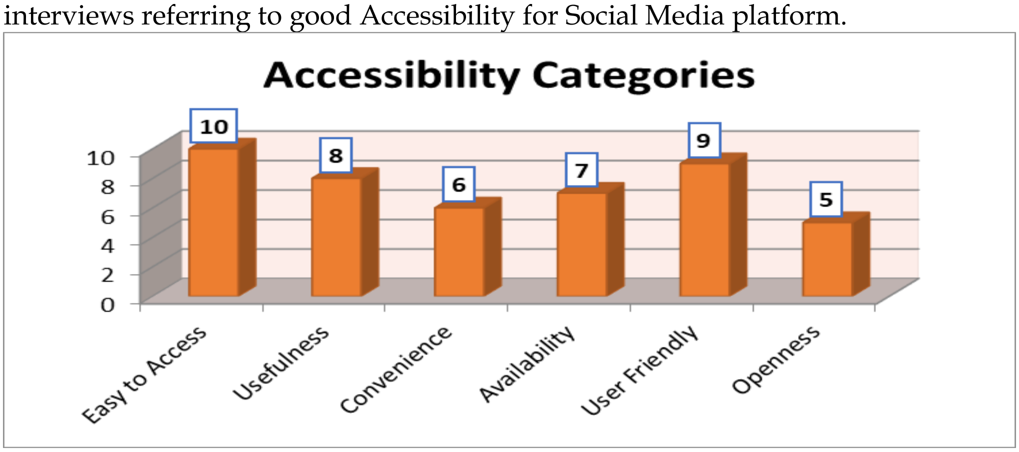

Figure 5: Accessibility Main Categories

Finally, Credibility was the fifth theme determined as customers trust the platform they are using and feeling it is reliable and they can report spam if they face any problems. Figure 5 shows the main categories found in the interviews referring to good Credibility for Social Media platform.

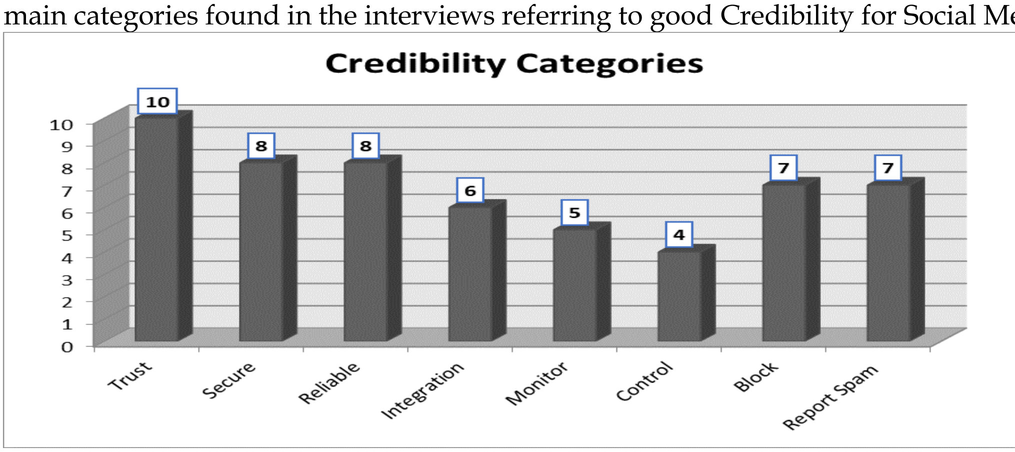

Figure 6: Credibility Main Categories

5 Conclusion

This paper makes an innovative and substantive contribution to the literature, as it is the first paper to highlight that social media marketing practices are relevant conceptual model for developing research propositions and guidelines for future researchers in the specific context of

Brand Equity. The main findings include the Social Media marketing practices as: Online Communities, Interaction, sharing of Contents, Accessibility and Credibility.

References

Belch, G. and Belch, M. (2014), “The role of new and traditional media in the rapidly changing marketing communications environment”, International Journal of Strategic Innovative Marketing, Vol. 1, pp. 130-136, doi: 10.15556/IJSIM.01.03.001

Bernhardt, J.M., Mays, D. and Kreuter, M.W. (2011), “Dissemination 2.0: closing the gap between knowledge and practice with new media and marketing”, Journal of Health Communication, Vol. 16, Suppl. 1, pp. 32-44

Jay M. Bernhardt, Darren Mays, Amanda K. Hall, (2012) "Social marketing at the right place and right time with new media", Journal of Social Marketing, Vol. 2 Issue: 2, pp.130-137, https://doi.org/10.1108/20426761211243964

Constantinides, E., Lorenzo-Romero, C. and Alarcón-del-Amo, M.-C. (2013), “Social networking sites as business tool: a study of user behavior”, in Glykas, M. (Ed.), Business Process Management, Studies in Computational Intelligence, Springer, Berlin and Heidelberg, pp. 221-240

Costas Assimakopoulos, Ioannis Antoniadis, Oliver G. Kayas, Dragana Dvizac, (2017) "Effective social media marketing strategy: Facebook as an opportunity for universities", International Journal of Retail & Distribution Management, Vol. 45 Issue: 5, pp.532-549, https://doi.org/10.1108/IJRDM-11-2016-0211

Hanna, R., Rohm, A. and Crittenden, V.L. (2011), “We’re all connected: the power of the social media ecosystem”, *Business Horizons*, Vol. 54 No. 3, pp. 265-273.

Heng-Li Yang, Chien-Liang Lin, (2014) "Why do people stick to Facebook web site? A value theorybased view", Information Technology & People, Vol. 27 Issue: 1, pp.21-37, https://doi.org/10.1108/ITP-11-2012-0130

Rupak Rauniar, Greg Rawski, Jei Yang, Ben Johnson, (2014) "Technology acceptance model (TAM) and social media usage: an empirical study on Facebook", Journal of Enterprise Information Management, Vol. 27 Issue: 1, pp.6-30, https://doi.org/10.1108/JEIM-04-2012-0011

Rust, R.T., Moorman, C. and Bhalla, G. (2011), “Rethinking marketing”, Harvard Review, September, available at: http://hbr.org/product/rethinking-marketing/an/R1001F-PDFENG (accessed 8 September)

Scott, D.M. (2011), *The New Rules of Marketing & PR*, Wiley, Hoboken, NJ

Wirtz, B.W. and Göttel, V., 2016. Technology acceptance in social media: review, synthesis and directions for future empirical research. *Journal of Electronic Commerce Research*, *17*(2), p.97.

Appendix: Interview

Good Morning Dear;

My name is Hana ElAydi; a postgraduate student in the Arab Academy for Science, Technology and Maritime Transport (AAST).

I highly appreciate your participation and support regarding my research, discussing the impact of Social Media Marketing practices on Brand Equity of Mobile Network. This interview is part of the data collection process of my research for the purpose of data analysis and evaluating the impact of social media practices on mobile networks.

Social media is ---.

Social media have different types, like; --.

Platform is meant to be --.

Mobile networks are ---.
I would like to thank you for taking the time to respond to my interview questions below. First of all, I would like you to tell the relative group for you regarding the profile characteristics mentioned.
Would you tell me your age group?
Below 20 yrs ☐ 20- below 30 yrs ☐ 30-below 40 yrs ☐
40-below 50 yrs ☐ 50 yrs and above ☐

Could you tell me your income level?
Less than 3000 ☐ 3,000 to 5,000 ☐ 5,000 to 10,000 ☐ More than 10,000 ☐
What about your background?
High School ☐ Undergraduate ☐ Postgraduate ☐
Others ☐ Please Specify --------------------

Social Media	Do you use Social Media? If so, From where have you heard about social media? What do you know about it? How frequently do you use it? Which type of platform(s) do you actually use? What social media platform do you use more? Why? What do you think of it? Please evaluate its quality. Would you describe your experience with social media? Do you think of relying on other social media platform? Why? Do you recommend it to others? Why? Whom if any? Have you seen advertisements on social media before? If so, was it for mobile networks? Do you like social media marketing advertisements? Why?
Social Media Marketing Practices	What could be social media practices? Which activities do you like most in social media? Why? Do you think you are able to interact and share contents you like through social media? Probe on scale from 1 to 10 -------- Do you think it is easy to access information about mobile networks through social media? How? Probe on scale from 1 to 10 -------- Do you think that social media are credible? How? Probe on scale from 1 to 10 -------- Do different reviews on social media affect your choice of mobile network services? Why? Please explain
Social Media Marketing Practices and Demographics	What could be the reasons beyond your preference regarding different social media practices? Gender? Probe from 1 to 10 ------ Age group? Probe from 1 to 10 ------ Education level? Probe from 1 to 10 ------ Income level? Probe from 1 to 10 ------
Social Media Practices and Brand Equity Dimensions	Do social media practices influence your information about mobile networks? How? Do social media practices change your mind regarding mobile networks quality? How? Do social media practices let you more loyal to a certain mobile network than another? How?

Social Media Marketing Dimensions	What do you think of the information posted by mobile networks accounts on social media? Are they trustworthy? What content do you expect to share from mobile networks on social media? Do you think that better accessibility of social media might influence your preference regarding mobile networks?
Exit Questions	What practices were you expecting from social media and you did not find? Imagine you are entering a new social media platform, what would you like to find? Do you have any further comments you like to add regarding social media marketing practices and their impact on mobile network equity?

The relationships between portuguese banks and their customers in a recessionary context

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Keywords
Marketing, Relationship Marketing, Consumer Behavior, Crisis, Banking

Abstract

Financial institutions were in the genesis of the crisis that led to the current recession. This study aims to understand better the relationship Portuguese people have with their banks in a recessionary context, as well as to provide knowledge that may contribute to the consumer behavior field of research linking to the Banking industry.

Having that purpose in mind, a quantitative study was conducted using data gathered by questionnaire using a sample of 488 respondents, which was further complemented by the information collected applying Netnography. The overall analysis suggests that the impact of the crisis on the household financial situation throughout the last couple of years influences attitudes towards money and expenses. The way customers' purchase and consumption behaviors were affected by crisis are, to some extent, positively related to their satisfaction with the main bank.

1. Introduction

The environment we live in has been shaped by the undisputable force of a perfect storm that can be dated from 2007: the Great Recession. With its genesis in the United States, it resulted from a combination of complex events including the U.S. housing boom, the subprime MBS (mortgage-backed securities) bubble and the deregulation of OTC (over-the-counter) derivatives (Hera, 2010; Investopedia, 2014; McRitchie, 2011; Norton, 2010). Such explosive cocktail would later reveal that it was unable to contain itself within American land – it would be only a matter of time until it crossed borders. Globalization worked as a catalyst that quickly spread it throughout the planet like wildfire, along with the most devastating consequences since the World War II (Davis, 2009): austerity, high levels of household debt, trade imbalances, high unemployment, failure of key businesses and the bailout by national governments of banks – the same institutions which through excessive borrowing, risky investments and lack of transparency (U.S. Government Printing Office, 2011), triggered the inception of this crisis (Baily & Elliot, 2009; European Commission, 2009; International Monetary Fund, 2010).

In Portugal, it happened to unveil the weak foundations on which the country was trying to substantially grow, although unsuccessfully, in the past few years – a proof that despite its negative connotation, a recession can have a bright side (Seabury, 2009). It exposed an overloaded and unproductive public service, the second slowest justice system in Western Europe and a series of shady issues that comprised unclear public-private relationships and the funding of numerous ineffective external committees (Khalip, 2012).

Nowadays, Portugal has already surpassed expectations by starting to show signs of a turnaround. It was announced that the deepest recession for more than two decades had finally reached an end, after two and a half years (Wise, 2013). Still, it is too soon for Portuguese people to feel and believe in the positive outcomes that may accrue from such news (Kowsmann, 2013). In part, because there is a long way to go, after this chapter under Troika's watch, that will continue to imply austerity, but mostly because the few good perspectives for future growth might be jeopardized by the power return to the same agents that drowned Portugal: negligent politicians and financial institutions.

That being the case, it is pretty clear that a mist of distrust lingers upon these parties. In financial services, it has actually been considered an endemic long-term problem that, in addition to the crisis, deteriorated the image of the Portuguese banking industry.

Therefore, in order to regain customers' trust, it becomes necessary to conduct a diagnosis, in the first place. It becomes necessary to investigate the relationship customers have with their banks and understand in what extent it may be improved, given the tough economic conjuncture that Portugal is facing as a result of the financial crisis. It is on this premise that the objectives of this study are based.

Several financial institutions all over the world failed due to this crisis, leaving governments with no other alternative than bailing out most of the banks that were considered too big to fail (Sivakumar & Krishnaswami, 2012). Unsurprisingly, this sort of events coupled with the crisis eroded the trust among the major financial players (Kaushal, 2010; Grant et al., 2013). According to Edelman's Trust Barometer report concerning the Portuguese reality, such fact is verified once Banking and Financial Services are the sectors which inspire less confidence in the country (Edelman, 2013). Nevertheless, the amount of term deposits has been rising (Pordata, 2014), which is even more astonishing if we take into account the wage bottleneck families have been facing across these rough years.

Given this, we reach the conclusion that Portuguese people have been changing their behaviors in order to save more (Nielsen, 2010) – a shift that had its roots in the harsh consequences of the recession, rather than in the effort of banks. Along with that, internet banking has been increasing its penetration rate in the Portuguese market (Marktest, 2017) and the contact with the bank has been made more frequently through the account manager (Marktest, 2017), making it mandatory for this industry to improve its relationship with customers.

Most of all, customers want their bank to be trustworthy and honest in this crisis hangover, implying a change in banks' attitude towards clients, combined with a strategy that increases investment in retention and keeps current customers satisfied.

2. Literature review

Relationships constitute an ancient phenomenon as old as mankind in which traders and business people have always had to rely on (Jham & Khan, 2008). If we go back in time to the pre-industrial era, producers of agriculture goods interacted directly with their customers and artisans often developed customized products for each client, in a desire to strengthen the bond between both parties. They knew each customer personally, factor that enabled them to understand and satisfy consumers' needs like no one else (Zineldin & Philipson, 2007). Such connection only lost some of its chemistry, with the birth of middlemen and the nourishment of a mass production society (Sheth et al., 2012), which became the wall that prevented our business valentines from seeing each other. Nevertheless, the fall of some bricks and the erosion of this barrier were inevitable before the power of this bond.

The relationship approach turned out to be rediscovered when, in the late 1970s, Barbara Bund Jackson suggested that the creation and development of long-term relationships with the clients entailed an ensemble of measures that had to be consistently implemented throughout time (Pereira, 2008). That was the moment when the term Relationship Marketing (RM) came to be employed. The same title that Berry would take advantage of to start an endorsed journey as the apostle responsible for spreading RM in a services context (Gilaninia et al., 2011c; Pereira, 2008; Taleghani et al., 2011; Zineldin & Philipson, 2007) as a strategy that comprised all activities to attract, maintain and enhance customer relationships by increasing customer profitability, while providing better services for customers (Berry, Shostack & Upah, 1983).

Relationship Marketing has thus emerged within the field of Services Marketing and Industrial Marketing (Bolton et al., 2008; Dwyer et al., 1987; Ndubisi & Wah, 2005; Swaminathan et al., 2007; Thorbjornsen et al., 2002) as a paradigm shift (Grönroos, 1997; Sheth & Parvatiyar, 2002; Sheth et al., 2012) from the prevailing view of the marketing mix with 4Ps in focus, Transactional Marketing (Carson & Walsh, 2004: Grönroos, 1994; Lindgreen et al., 2000).

To take advantage of these benefits, banks must be trustworthy and committed to the service ethic, communicate timely and accurately, and quickly resolve conflicts in a manner that eliminates unnecessary losses and inconvenience to customers (Taleghani et al., 2011). By acting this way, banks incur in a win-win situation with customers, allowing the systematic monitoring of borrowers for credit assessment that enforces contract compliance and works as a conduit to gather vital information for greater satisfaction, repurchase, and positive word of mouth (Ashton & Pressey, 2004).

The deregulation of banking and other service industries (Berry & Parasuraman, 1993; Berry, 1995) made it possible to have more players in the game that could offer similar or even better products/services at a lower price – in the financial sector it inclusively translated into the practice of more aggressive rates (Kumar & Shanthimogaraj, 2013). This started a switching stream that would flow towards what was considered to be the best option at a given time. To stop this leak, companies figured out that the antidote lied in the power of enduring relationships (Gilaninia et al., 2011c), not only with customers but also with suppliers, government and the society at large (Aminu, 2012; Hunt et al., 2006). As a matter of fact, a new breed of competition based on that belief appeared as a response to the existing forms of competition that were reigning: traditional competition and hierarchical competition.

Customer expectations rapidly changed, powered by new technology and the growing availability of cutting-edge features and services (Sheth et al., 2012). This enabled companies to answer quickly to competitors' innovations, lowering the impact that product differentiation had in markets. Given this, products became considerably homogeneous and competition increased. Only collaborative relationships with customers proved to be a wise way to distinguish organizations from the respective competition, at a superior level: the augmented product level (Taleghani et al., 2011).

The continuity of service that closer relationships engendered, gifted clients with the customized service delivery and proactive attitude they searched for, especially in high-involvement services such as banking (Berry, 1995). This, coupled with valuable information obtained through new technology, allowed managers to enhance the loyalty and satisfaction of their customers (Gilaninia et al, 2011b), to keep track of their changing expectations and to appropriately influence them (Sheth & Sisodia, 1995).

Nevertheless, another game changer has recently determined more changes in consumer behavior: the global financial crisis. It led to an increased cost of living, lower wage settlements, and a growing unemployment rate, putting consumer spending under pressure (Nguyen, 2011). Because of that, consumers have become more economical, more responsible, more demanding and increasingly aware of all aspects involved in purchase of products, from design, safety and origin, to their social and economic impact (Voinea & Filip, 2011).

People refuse to buy premium products unless they clearly perceive quality advantage. They opt for lesser-known brands instead. Even when they are loyal to some brands, they prefer to wait for a price drop, by promotions or discount coupons (Ang et al., 2000). Besides, consumers are more in comparative shopping. Most of them have more time for shopping around and compare product prices on the internet in order to get the most for their money (Nguyen, 2011).

Given this, we notice that the new consumers seem to have understood that true progress is to choose wisely and consume better, not more (Voinea & Filip, 2011). Their habits have been shaped up to such an extent by the crisis that their reluctance as regards to a recovery will preserve those conducts for a long time. Hence, the first research question:

RQ1: To what extent does the change of the household financial income influence the attitudes towards money and expenses?

Concerning this metamorphosis, it is more essential than ever for businesses to satisfy customers' needs and wants with the purpose of retaining those (Mylonakis, 2009), specially after the global financial crisis.

Satisfaction is a multidimensional construct that has been defined as the consumers' post-purchase evaluation of a product or service in terms of whether it has met their needs and expectations, and as an emotional response to the overall product or service experience (Ouyang, 2010).

It aims to meet one's expectations within 3 dimensions (Jham & Khan, 2008) – satisfactory interactions with personnel, satisfaction with the core service, and satisfaction with the organization – to successfully establish long-term relationships between parties and consequently benefit from producing satisfied customers. A scenario that takes place in the banking sector, where customers tend to be more receptive to additional financial services that are offered by a bank with whom they are satisfied (either due to service quality, service features, customer complaint handling or situational factors), hence leading to increased profit margins because satisfied customers tend to be less price sensitive than dissatisfied customers, buying more as the firm introduces new products, upgrading existing ones and talking favorably about the firm and its services (Aminu, 2012). Nonetheless, crisis might have affected the level of satisfaction of the individuals who suffered financially due to such event (i.e.: through losing a job, not being able to raise a mortgage, low returns on savings, collapse of share prices): reason why these are predicted to hold more negative stereotypes concerning this industry than those who barely felt the negative consequences of the crisis (Bennett & Kottasz, 2011). Accordingly:

RQ2: Is the satisfaction with the main bank related to how respondents' consumption and purchase behaviors were affected by the recent economic conjuncture, also known as crisis?

3. Methodology

First, an exploratory approach was used with the intent of further delving into the relationship Portuguese bank clients have with the banking sector in a recessionary context. Hence, to better decipher some of the details of such synergy, the elected method was Netnography, a quite new research technique which, according to Kozinets (1997, 1998, 1999, 2002, 2010), adapts ethnographic techniques to study online cultures and communities. It provides a means for accessing, gathering and interpreting the information that is publicly available in online forums to analyze the needs, trends, behaviors and decision influences of relevant online consumer groups (Belz & Baumbach, 2010; Kozinets, 2002; Sigala, 2012; Xun & Reynolds, 2009), being useful not only for studying cybercultures, but also as an exploratory tool for studying general topics (Kozinets, 1998; Nimrod et al., 2012).

In this study, the use of Netnography could not make more sense given the increase in internet access and time people spend online, particularly nowadays and in Portugal: 3 out of 4 internet users is permanently connected (Diário de Notícias, 2009) in a population where more than half of the total (5,7 million) browses the web (Marktest, 2014). In addition to that, the number of subscribers has been rising at an astonishing rhythm (Pordata, 2014a).

Consumers are thus ever more turning to computer-mediated communication to search for information on which to base their decisions. Besides checking advertising and corporate Web sites, consumers are using newsgroups, chat rooms, e-mail list servers, personal World Wide Web pages, and other online formats to share ideas, build communities, and contact fellow consumers who are seen as more objective information sources (Kozinets, 2002). This gives an incentive for marketing researchers to adopt an online qualitative method, with Netnography emerging as the preferred one due to its data characteristics and advantages over the others.

While qualitative studies are useful to disclose consumer attitudes, believes and opinions, quantitative studies are meant to contribute with facts. Therefore, findings are not presented in the form of ideas or quotes. They rather assume a statistical nature (Kolb, 2008). In order to gather the required info to proceed with the quantitative method, a data collection instrument hence had to be unavoidably chosen to fuel this study's statistical database. The questionnaire was the elected way of prospecting answers for the suggested research questions, with the ultimate intent of reaching this study's main goal: to understand the relationship Portuguese people have with their banks in a climate of austerity.

A non-random quota sampling procedure was used to assure that the sample would possess the same proportion of certain control characteristics (age group, gender, residence area and academic qualifications) as the population. As a result, a valid sample of 488 Portuguese bank clients with more than 17 years old was obtained and is the basis for the statistical analyses that were conducted using IBM SPSS.

4. Empirical component

4.1 Qualitative results

The qualitative study is inherently connected to Netnography, taking advantage of the contemporary online bond that exists between individuals and the World Wide Web, to explore several aspects of the relationship Portuguese bank clients have with the banking sector in a recessionary context. For such purpose, pertinent questions associated with consumer attitudes, believes and opinions were developed, enriching insights on main bank, savings and satisfaction related issues. The answers to these questions were then collected from proper online forums so that they could be interpreted, as seen below.

According to the results of this exploratory study, it is possible to conclude that Portuguese individuals usually work with either one or two banks.

"…The idea was having an account for everyday life operations where I would have the money available for withdrawals, transfers, ATM payments, etc. and another one for savings…" – by "antunesfilipee" on 21.12.2017 (http://www.forumfinancas.com/index.php?topic=7900.0)

Despite having some drawbacks such as the lack of large vaults and specific credit instruments to finance education, the migration towards online banking is something that is seen as natural considering the extensive scope of benefits it provides: no maintenance fees, no costs with cards, a developed online platform, a wide investment diversity, good credit services and above average returns on savings products.

In view of these advantages that are emerging as threats to retail banks, one user gets even to recommend that physical banks should differentiate from each other, by focusing in one specific field of business and becoming experts on it to consequently gain competitive advantages over their competitors and succeed in the financial industry.

Concerning the costs that customers have with the services banks offer, there are a few which are aware of the prices' reality and the fees that those firms establish whereas, on the other hand, there are others that are completely uninformed as regards to that matters: they simply pay what the banks ask for their services. However, it can be concluded that, one way or another, most people have the slightest notion of what they spend on banking services.

"As regards to maintenance costs I can't help you because I don't know much about the subject…" – by "Diana_Costa" on 03.05.2017 (http://anossavida.pt/forum/melhor-banco-ajuda)

Apart from factors such as proximity, one of the criteria that is taken into account to choose a bank is price. If persons consider that factor, it means that they eventually have a notion of how much they spend in financial services, which may additionally explain the trend to switch to online banks, known for its low or null fees.

"…I have an account at Activo and I like it. I don't pay for online transfers or cards…" – by "botelho" on 23.04.2017 (http://www.forumfinancas.com/index.php?topic=4931.0)

When assessing savings opportunities, customers ask the bank, usually the account manager, for an opinion. But they don't stick to it. They address friends, family and other persons that might have passed through the same experience or that are known for having knowledge about the topic, just like some of the users from the observed online forums. In other words, they ask for advice to all and sundry, taking advantage of all the information they can gather to make a decision.

"…I have 21000 euros to invest, reason why I had a meeting with my account manager that advised me to split that amount into two investments (…) Since my knowledge is close to nothing, what's your opinion about this option?..." – by "Filipe Nascimento" on 04.11.2015 (http://www.forumfinancas.com/index.php?topic=3751.msg30452#msg30452)

4.2 Quantitative results

The sample that resulted from a non-random quota sampling procedure includes 488 Portuguese bank clients whose gender is female in 57% of the cases and male in 43%. All of them have more than 17 years old: a mandatory requirement since Portuguese citizens can only open accounts and make transactions from the age of 18.

As regards to education, the predominant level is Elementary (36%), being followed by High School (28%) and Undergraduate (21%). Out of this top 3, remained the Master (9%), the Bachelor (3%) and the Doctoral degrees (2%).

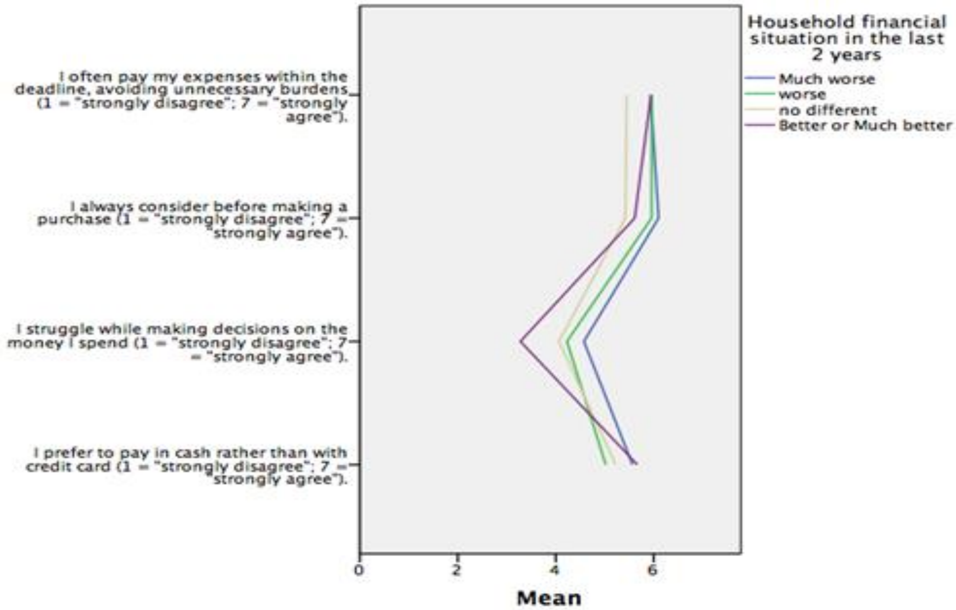
Concerning the area of residence, which is arranged according to the Nielsen areas, 30% of the respondents live in the region III-N (the north central Portugal with the exemption of Oporto's metropolitan area) and 19% live in capital's metropolitan area, region I. Nonetheless, the Nielsen areas III-S (the south central Portugal with the exception of Lisbon's metropolitan area) and V (south of Portugal) have also a considerable weight, counting each 16% of the surveyed sample. When it comes to the household monthly net income, 4 out of the 6 income groups have a similar proportion of respondents – around 15%. Only 2 of these factions stand out from the rest: the households that earn between 501 and 750 euros (20%) and the ones with a monthly net income from 751 to 1000 euros (22%).

When asked if their consumption and purchasing behaviors were affected by the crisis, 70% of the respondents answered they had been seriously disturbed by it, 16% had moderately felt its impact, and 14% had barely or not seen their consumption and purchase behaviors change due to the economic collapse. The same individuals were asked about how they faced the future, taking into account their economic situation. Despite the fact that 20% are optimistic about it, 29% are neutral and more than a half (51%) proved to be pessimistic regarding the future.

Concerning the perception of the household financial evolution throughout the last couple of years, 80% of the respondents consider to be going through a worse or much worse situation than two years ago. When we fit the puzzle pieces together, it is noticeable that the majority of those surveyed has the perception of having been economically strangled by the financial crisis and succeeding recession. They feel that their consumption and purchasing behaviors were negatively affected in order to adapt to a reality that is worse than two years ago, hence leading to a pessimistic outlook regarding the future, in most of the cases.

The goal of RQ1 (*To what extent does the change of the household financial income influence the attitudes towards money and expenses?*) is to study the relationship between the household financial income evolution throughout the last couple of years and the attitudes towards money and expenses. Figure 1 displays the means of the responses to the four attitudinal variables for the individuals who consider the household financial situation in the last couple of years as much worse; worse; similar to; better or much better than before.

Figure 1 - Means of the attitudes' responses according to the perceived evolution of the household financial situation in the last 2 years



In order to test for the equality of the distribution of each of the four attitudinal variables for the 4 groups defined by the perception of the household financial situation in the last two years, non-parametric Kruskal-Wallis tests were conducted. The results suggest that are statistical differences (sig < α=0,05) among the groups defined by the household financial situation (compared to two years ago), regarding the distribution of the attitude variables "I struggle while making decisions on the money I spend" and "I always consider before making a purchase". It is possible to conclude that individuals with the highest levels of agreement (and also the highest mean values) in those statements are the ones with the perception of having seen their household financial income change to a much worse situation than two years ago, in contrast with the individuals who perceived to be dragged towards an equal or better condition.

Given the impact of the latest economic crisis and its known origin, it is pertinent to question if the satisfaction with the main bank is somehow related to it. That is what RQ2 (*Is the satisfaction with the main bank related to how respondents' consumption and purchase behaviors were affected by the recent economic conjuncture, also known as crisis?)* aims to address.

To test such hypothesis, a Chi-Square test was conducted and a 5% significance level was considered. Since sig = 0.006, the null hypothesis was rejected, making it possible to conclude that there is a significant relationship between the satisfaction with the main bank and the impact of the recent economic conjuncture, also known as crisis, on the respondents' consumption and purchase behaviors. Moreover, thanks to the crosstabulation, which is represented in figure 2, an interesting pattern could be added to this investigation. It is suggested that the respondents who perceive that their consumption and purchase behaviors were affected by the crisis and subsequent recession, tend to agree more when asked if they are satisfied with their main banks. And although the ones who strongly agree with the changes in the stated behaviors present a slightly smaller percentage when compared with the previous level of agreement, they still hold the higher percentage of "strongly agree" regarding the satisfaction with their main banks.

Table 1 - Relationship between the satisfaction with the main bank and the impact of the recent economic conjuncture, also known as crisis, on the respondents' consumption and purchase behaviors

My consumption and purchase behaviors were affected by the recent economic conjuncture, also known as crisis * I am satisfied with my main bank Crosstabulation

% within My consumption and purchase behaviors were affected by the recent economic conjuncture, also known as crisis

		I am satisfied with my main bank					
		Disagree	Neither agree nor disagree	Slightly agree	Agree	Strongly agree	Total
My consumption and purchase behaviors were affected by the recent economic conjuncture, also known as crisis	Disagree	21,7%	24,6%	17,4%	20,3%	15,9%	100,0%
	Neither agree nor disagree	14,3%	24,7%	35,1%	15,6%	10,4%	100,0%
	Slightly agree	9,9%	21,4%	29,0%	21,4%	18,3%	100,0%
	Agree	8,2%	20,0%	20,9%	33,6%	17,3%	100,0%
	Strongly agree	14,1%	20,2%	12,1%	33,3%	20,2%	100,0%
Total		12,8%	21,8%	23,0%	25,5%	16,9%	100,0%

5. Discussion

The latest financial crisis, succeeded by The Great Recession, opened a wound that individuals are still trying to heal. As Portugal became one of the credit rating agencies' main targets, its citizens have been particularly affected by the side effects of those events, while struggling to manage their lives in times of austerity.

Given the role of financial institutions in the genesis of this nightmare, the main purpose established for this study was to understand better the relationship Portuguese people have with their banks and to investigate the evolution of such bond from a context previous to crisis to another filled with austerity. With this purpose in mind, two methodologies were carried out to enrich this analysis as much as possible: a qualitative study, Netnography, and a quantitative study with data obtained from the administration of a questionnaire.

As regards to the first objective, it was concluded that the respondents which agree the most with the addressed attitudes towards money and expenses, are the ones with the perception of having seen its household financial income change to a much worse situation than two years ago. Implicitly, since the cause of the income change to a worse situation is attached to crisis, it is possible to infer that, in those cases (around 80%: percentage of the respondents who consider to be going through a worse or much worse situation than two years ago), attitudes were triggered by it.

Concerning the second objective, the quantitative study revealed that satisfaction is related to the impact of crisis on respondents' purchase and consumption behaviors. Surprisingly, it is suggested that the most satisfied persons tend to be the ones who feel more struggled by the crisis. A conclusion that does not contradict what was mentioned in the Literature Review (Bennett & Kottasz, 2011), since it considers the customers' perception of their main banks, instead of the whole industry.

Most Portuguese banking customers work with either one or two of the most renowned banks, in spite of its excessive bureaucracy, inefficient complaint management, problematic homebanking service, low interest rates or low-tech profile. All because of the perceived image respondents get from being a big bank: more solidity, credibility, safety and trust than its private competitors. These conclusions are all supported by the netnographic procedure, which even adds an interesting trend to the Portuguese banking scene: the migration towards online banking, due to the extensive scope of benefits it provides: no maintenance fees, no costs with cards, a developed online platform, a wide investment diversity, good credit services and above average returns on savings products (because, although in times of recession, some Portuguese customers are still into savings, even if in small amounts and without risk).

However, these findings should be taken into consideration with some circumspection, given the existing limitations. Apart from the Netnography's limitations, the relationship between satisfaction and crisis may differ from country to country, or from a cluster of countries to another, as demonstrated by Skowron & Kristensen (2012) when they compared satisfaction between developed and developing countries. Finally, further research should be done in order to explore the combination of socio-demographic characteristics with the vastest possible number of banking variables in order to define sharp segments useful for helping Portuguese banks diversify their services offer.

Bibliography

Aminu, S. A. 2012. Empirical Investigation of the effect of Relationship Marketing on Banks' Customer Loyalty in Nigeria. *Interdisciplinary Journal of Contemporary Research in Business*, 4(6): 1249-1267.

Ang, S. H., Leong, S. M. and Kotler, P. 2000. The Asian Apocalypse: Crisis Marketing for Consumers and Business. *Long Range Planning*, 33: 97-119.

Ashton, J. K. & Pressey, A. 2004. The Regulatory Challenge to Relationship Marketing in UK Banking. *The International Journal of Bank Marketing*, 22(6/7): 453-464.

Baily, M. N. & Elliot, D. J. 2009. The US Financial and Economic Crisis: Where Does It Stand and Where Do We Go From Here? *Initiative on Business and Public Policy at Brookings*: http://www.brookings.edu/~/media/research/files/papers/2009/6/15%20economic%20crisis%20baily%20elliott/0615_economic_crisis_baily_elliott.pdf, 01/02/2014.

Bennett, R. & Kottasz, R. 2011. Public attitudes towards the UK banking industry following the global financial crisis. *International Journal of Bank Marketing*, 30(2): 128-147.

Berry, L. & A. Parasuraman. 1993. Building a New Academic Field – The Case of Services Marketing. *Journal of Retailing*, 69(1): 13-60.

Berry, L. L. 1995. Relationship Marketing of Services – Growing Interest, Emerging Perspectives. *Journal of the Academy of Marketing Science*, 23(4): 236-245.

Berry, L. L., Shostack, G. L. & Upah, G. D. 1983. *Emerging perceptions on service marketing*. Chicago, IL: American Marketing Association.

BELZ, F. & Baumbach, W. 2010. Netnography as a Method of Lead User Identification. *Creativity and Innovation Management*, 19(3): 304-313.

Bolton, R. N., Lemon, K. N. & Verhoef, P. C. 2008. Expanding Business-to-Business Relationships, Modeling the Customer's Upgrade Decision. *Journal of Marketing*, 72 (1): 46-64.

Davis, B. 2009. What's a Global Recession? Real Time Economics. *The Wall Street Journal*: http://blogs.wsj.com/economics/2009/04/22/whats-a-global-recession/, 01/02/2014.

Diário De Notícias. 2009. Internet: Portugal é o País que Mais Tempo Passa Online. *DN*: http://www.dn.pt/inicio/interior.aspx?content_id=1231730#AreaComentarios&page=2, 16/03/2014.

Dwyer, R. F., Schurr, P. H. & Oh, S. 1987. Developing Buyer-Seller Relationships. *Journal of Marketing*, 51(2): 11-27.

Edelman. 2013. Relatório Global, UE e Portugal. *Edelman Trust Barometer 2013*: http://www.slideshare.net/gcipt/relatrio-tb2013-globalueportugal2013pt-23912302; 20/02/2014.

European Commision. 2009. Economic Crisis in Europe: Causes, Consequences and Responses. *European Communities*: http://ec.europa.eu/economy_finance/publications/publication15887_en.pdf, 01/02/2014.

Gilaninia, S., Alipour, H., & Khosoosi, E. Z. 2011a. CRM Application Impact on Customer Satisfaction in Financial and Credit Institutions (Case Study: Financial and Credit Institutions in Guilan, Iran). *Journal of Basic and Applied Scientific Research*, 1(8): 956-963.

Gilaninia, S., Almani, A. M., Pournaserani, A., & Mousavian, S .J. 2011b. Relationship Marketing: a New Approach to Marketing in the Third Millennium. *Australian Journal of Basic and Applied Sciences*, 5(5): 787-799.

Gilaninia, S., Mousavian, S. J., Moaf, S. M., Jelodarloo S. N. A., Pournemat, M., Tajalli M., Damirchi F. G. & Seighalani, F. Z. 2011c. Comparative Study of Relationship Marketing In Public and Private Banks. *Interdisciplinary Journal of Contemporary Research in Business*, 3(8): 508-514.

Grant, P.S., Stiehler, B., & Boon, E. (2013), Through bubbles and crises: An analysis of the Journal of Financial Services Marketing from 2000 to 2012, *Journal of Financial Services Marketing* 18, 260-270

Gronroos, C. 1997. From Marketing Mix to Relationship Marketing – Towards a Paradigm Shift in Marketing. *Journal of Management Decision*, 35(4): 322-39.

Hera, R. 2010. Forget About Housing, the Real Cause of the Crisis Was OTC Derivatives. *Business Insider*: http://www.businessinsider.com/bubble-derivatives-otc-2010-5, 01/02/2014.

Hunt, S. D., Arnett, D. B., & Madhavaram, S. 2006. The Explanatory Foundations of Relationship Marketing Theory. *Journal of Business & Industrial Marketing*, 21(2): 72-87.

International Monetary Fund. 2010. Sharp Rise in Unemployment from Global Recession. *IMF Survey Magazine: In the News*:
http://www.imf.org/external/pubs/ft/survey/so/2010/NEW090210A.htm, 01/02/2014.

Investopedia. 2014. The Great Recession. *Investopedia US, A Division of IAC*:
http://www.investopedia.com/terms/g/great-recession.asp, 01/02/2014.

Jham, V. & Khan, K. M. 2008. Determinants of Performance in Retail Banking: Perspectives of Customer Satisfaction and Relationship Marketing. *Singapore Management Review*, 30(2): 35-45.

Kaushal, L. 2010. Global Recession – The Sub-Prime Crisis. *Drishtikon: A Management Journal*, 1(2): 103-122.

Khalip, A. 2012. Insight: Rushed Portugal Justice Reform Risks More Error Than Trial. *Reuters*: http://www.reuters.com/article/2012/09/19/us-portugal-judiciary-reform-idUSBRE88I09V20120919, 01/02/2014.

Kowsmann, P. 2013. Portugal Emerges From Recession. *The Wall Street Journal*:
http://online.wsj.com/news/articles/SB10001424127887323639704579012352926861682, 01/02/2014.

Kozinets, R. V. 1997. "I Want To Believe": A Netnography of The "X-Philes" Subculture of Consumption. *Advances in Consumer Research*, 24: 470-475.

Kozinets, R. V. 1998. On Netnography: Initial Reflections on Consumer Research Investigations of Cyberculture. *Advances in Consumer Research*, 25: 366-371.

Kozinets, R. V. 1999. E-Tribalized Marketing? The Strategic Implications of Virtual Communities of Consumption. *European Management Journal*, 17: 252-364.

Kozinets, R. V. 2002. The Field behind the Screen: Using Netnography for Marketing Research in Online Communities. *Journal of Marketing Research*, 39: 61-72.

Kozinets, R. V. 2006. Click to Connect: Netnography and Tribal Advertising. Journal of Advertising Research, 46: 279-288.

Kozinets, R. V. 2010. *Netnography: Doing Ethnographic Research Online*. London: Sage.

Kumar, D & Shanthimogaraj, M. 2013. Customer Relationship Management in Industrial Bank. *Information Management and Business Review*, 5(3): 113-118.

Lindgreen, A., Davis, R. & Brodie, M. B. 2000. Pluralism in contemporary marketing practices. International Journal of Bank Marketing 18(6): 294-308.

Marktest. 2017. 1,6 Milhões Contactam o Banco Através de Gestor. *Grupo Marktest*:
http://www.marktest.com/wap/a/n/id~1922.aspx, 20/02/2014.

Marktest. 2016. Internet Banking Segue a Crescer. *Grupo Marktest*:
http://www.marktest.com/wap/a/n/id~1bc9.aspx, 20/02/2014.

Marktest. 2017. 5,7 Milhões de Utilizadores de Internet. *Grupo Marktest:*

http://www.marktest.com/wap/a/n/id~1cad.aspx, 16/03/2014.
Mcritchie, J. 2011. Deregulation of Derivatives Caused the Crisis. *Corporate Governance*: http://corpgov.net/2011/03/deregulation-of-derivatives-caused-the-crisis/, 01/02/2014.
Mylonakis, J. 2009. Customer Relationship Management Functions: A Survey of Greek Bank Customer Satisfaction Perceptions. *The Icfai University Journal of Bank Management*, 8(2): 7-31
Ndubisi, N. O. & Wah, C. K. 2005. Factorial and Discriminant Analyses of the Underpinning of Relationship Marketing and Customer Satisfaction. *International Journal of Bank Marketing*, 23(7): 542-557.
Nguyen, H. L. 2011. Consumer Behavior in Recession: Evidence from Finland. *The Business Review, Cambridge*, 18(1): 171-176.
Nielsen. 2010. Índice de Confiança Nielsen, Dados de Portugal – Quarter 3 2010. *The Nielsen Company*: http://pt.nielsen.com/documents/tr_201011_Nielsen_Consumer_Confidence_3Q_PORTUGAL.pdf, 20/02/2014.
Nimrod, G., Kleiber, D. A. & Berdychevsky, L. 2012. Leisure in Coping with Depression. *Journal of Leisure Research*, 44(4): 419-449.
Norton, S. (2010), A comparative analysis of US policy initiatives and their implications in a credit crisis: The Depression Era of the 1920s in a twenty-first century context, *Journal of Financial Services Marketing* (2010) 14, 328–345.
Ouyang, Y. 2010. A Relationship between the Financial Consultants' Service Quality and Customer Trust after Financial Tsunami. *International Research Journal of Finance and Economics*, 36: 75-86.
Pereira, H. 2008. *Determinantes da Fidelização na Compra de Produtos Turísticos Online*. PhD Thesis, ISCTE.
Pordata. 2014. Montantes de Depósitos de Particulares: Total e por Tipo – Portugal. *Fundação Francisco Manuel dos Santos*: http://www.pordata.pt/Portugal/Montantes+de+depositos+de+particulares+total+e+por+tipo-2114, 20/02/2014.
Pordata. 2014a. Assinantes do Acesso à Internet em Portugal. *Fundação Francisco Manuel dos Santos*: Http://Www.Pordata.Pt/Portugal/Assinantes+Do+Acesso+A+Internet-2093, 16/03/2014.
SEABURY, C. 2009. The Bright Side of the Credit Crisis. *Investopedia US, A Division of IAC*: http://www.investopedia.com/articles/economics/08/credit-crisis.asp, 01/02/2014.
Sheth, J. N. & Parvatiyar, A. 2002. Evolving Relationship Marketing into a Discipline. *Journal of Relationship Marketing*, 1(1): 3-16.
Sheth, J. N. & Sisodia, R. S. 1995. Improving Marketing Productivity. *Encyclopedia of Marketing In the Year 2000*. Chicago: American Marketing Association-NTC Publishing.
Sheth, J. N., Parvatiyar, A. & Sinha, M. 2012. The Conceptual Foundations of Relationship Marketing: Review and Synthesis. *Economic Sociology: The European Electronic Newsletter*, 13(3): 4-26.
Sigala, M. 2012. Social Networks and Customer Involvement in New Service Development (NSD). *International Journal of Contemporary Hospitality Management*, 24(7): 966-990.
Sivakumar, N. & Krishnaswami, S. R. 2012. Global Financial Crisis: Dharmic Transgressions and Solutions. *International Journal of Social Economics*, 39(1/2): 39-54.
Swaminathan, V., Page, K. L., & Gürhan-Canlie, Z. 2007. "My" Brand or "Your" Brand: The Effects of Brand Relationship Dimensions and Self-construal on Brand Evaluations. *Journal of Consumer Research*, 34(2): 248-259.
Taleghani, M., & Taban, H. T. 2011. The Role of Relationship Marketing for Customer Orientation in Banking Industry of Iran. *Interdisciplinary Journal of Contemporary Research in Business,* 3(6): 892-897.
Taleghani, M., Branch, R., Gilaninia, S., Branch, R., Mousavian, S. J., & Branch, R. 2011. The Role of Relationship Marketing in Customer Orientation Process in the Banking Industry with focus

on Loyalty Department of Industrial Management. *International Journal of Business and Social Science*, 2(19): 155–167.

Thorbjornsen, H., Supphellen, M., Nysveen, H., & Pedersen, P. E. 2002. Building Brand Relationships Online: A Comparison of Two Interactive Applications. *Journal of Interactive Marketing*, 16(3): 17-33.

U.S. Government Printing Office. 2011. *The Financial Crisis Inquiry Report*: http://www.gpo.gov/fdsys/pkg/GPO-FCIC/pdf/GPO-FCIC.pdf, 01/02/2014.

Voinea, L. & Filip, A. 2011. Analyzing the Main Changes in New Consumer Buying Behavior during Economic Crisis. *International Journal of Economic Practices and Theories*, 1(1): 14-19.

Wise, P. 2013. Portugal Emerges From its Deepest Recession in More Than 40 Years. *Financial Times*: http://www.ft.com/intl/cms/s/0/58975e76-04d9-11e3-9e71-00144feab7de.html#axzz2uAVEU5Uq, 01/02/2014.

Xun, J. & Reynolds, J. 2009. Applying Netnography to Market Research: The Case of the Online Forum. *Journal of Targeting, Measurement and Analysis for Marketing*, 18(1): 17-31.

Zineldin, M., & Philipson, S. 2007. Kotler and Borden Are Not Dead: Myth of Relationship Marketing and Truth of the 4Ps. *Journal of Consumer Marketing*, 24(4): 229-241.

Raising the standards of hospitality through the role of innovation and culture. A case study on Hotel juSTa

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Key Words
Hotels, Hospitality, Innovation, Culture

Abstract

This case opens a forum to discuss what it means for a company to use innovative ways and transparent culture in order to foster customer experience. It focuses on directive communication psychology to cultivate the necessity of culture of promoting mental health along with physical health to the customers. Special highlights on innovative marketing strategies of attracting customer with the motto of "Home away from home". On one hand there are chains like Taj Group, Welcome group and Oberoi, on the other hand there are boutique hotels like juSTa which have built a niche positioning. The case would address the issue of how to build and defend the niche. It would dwell upon the competitive strategy adopted by JustA for differentiating itself through products and services. The researchers took intensive interviews to collect data from the required resources to compile this case study. It is found that the positioning of juSTa as a hotel which is theme based, providing customer friendly culture with good emphasis on mental well-being with superior infrastructure is very unique in itself.

The Introduction

"The ambition of the juSTa brand is to be developed with the aspiration to deliver outstanding contemporary experience. In this clutter of international and local brands, we aim at creating a special niche for small luxury hotels, allowing juSTa to be international in every way, with an Indian Identity-" said Mr. Ashish Vohra on July 24th, 2017. An ideal space to create unforgettable memories, the juSTa hotels' signature style blends sophistication with local art and culture to create international class leading to redefining luxury. This huge passion to create something new to give a unique experience of comfort not only in physical sense but also cater to the psychological satisfaction of customer in hospitality sector. Mr. Ashish Vohra has conceptualized the comfort with mosaic of happy experiences, rich in moments of luxuries comfort, seamless service and the ambience of opulence in his hotels and resort. It balances the grandiose and the intimate to deliver a true luxury experience. Even the name juSTa is a Sanskrit word, which means 'to welcome' to your home. At juSTa hotels, this warm invitation of Indian hospitality meets international standards of luxury. The experience is further enhanced by Deepika Govind, wife of founder and designer by profession unique hand crafted design for each juSTa property.

Distinctive Unique Property

juSTa Hotels around India, each has a separate identity which caters the uniqueness of the city they are located in. Imbibing the local culture in the ethos as well as in design, juSTa offers a new and individualistic experience from one city to next. It promises an enriching and over whelming experience for each stay. The experience of juSTa is chalked out to be one filled with mosaic of happy experiences, rich in moments of luxurious comfort, seamless service, and the ambience of opulence. It has cozy niches for intimate to deliver a true luxury experience. In common areas, the "how it looks &feels" experience is reflected in breathtaking spaces, outstanding pieces of art, exquisite scents and the unique touch and feel sensation. A special focus on frequent travelers, juSTa gives individual attention to each guest and makes them comfortable with a feel of home away from home and fun at an affordable price.

Mr. Ashish Vohra

Journey of juSTa from Ideation to Expansion….

Mr.Ashish Vohra was born in Bhopal to a middle class family. Grown up in a simple background with high principles and values has been instilled in his personality by his revered parents. He did his MBA marketing from Pune University and then finally picked up a job in Oberois. Mr. Vohra has an overall 20 years of corporate experience with The Oberoi Hotels & Resorts and handled leadership positions in marketing, sales, strategy and Finance. Ashish founded juSTa hotels & resorts on August 15th, 2005 with a notion to provide psychological comfort to his clients. Since then, the company has grown organically through a mixture of own hotels, revenue share & management contracts. Mr.Vohra knew that he had to take a decision regarding his entrepreneurial idea and was well aware about the sacrifices that he had to take up. He tied himself with the principle that he had joined Oberois only to serve and not for a life style change. This belief helped him move out of a house in a posh locality to a Barsati. A huge change dawned in the life style of Mr.Vohra and the family, but with the support of his wife and his upbringing in a simple background helped him live in small means and make his dream come true.

While working in Oberoi as an employee, he found that most of the existing hotels were catering to only the high end clients. There was a huge gap in the hotel industries. There were either a five star or only guest houses. There was hardly anything available for the middle level clients. But with the influx of MNC's, employment in India was increasing and need for the Economic hotels for these employees was becoming a necessity due to the requirement from the industries for employees to travel around for various meetings. With juSTa Mr. Ashish brought a new innovation in the area of Luxury hotel. During that time, the competitors of juSTa were Lemon Tree. juSTa initiated the birth of giving a very homely atmosphere to the clients. It gave good respect to their stakeholders. juSTa makes an attempt to understand the customers at a very deeper level. The sustainability at juSTa is very high because of the following factors: It gives immense importance to comfort of physical being as well as mental being. The concept of touching the chord of mental health was extremely unique but it was a huge impact as with a better mental peace the clients are able to give their best on whatever official purpose they take juSTa as a place to stay.

2.1 juSTa Logo

The concept was designed by Mr.Mrinal "TREE WITH RAINBOW COLOURS" DEPICTING THE VARIOUS HUES OF LIFE. The logo denotes a tree, which is an eternal symbol of life. As the tree provides shelter, so too does jüSTa. The green of the tree enhances jüSTa, making it a green brand. Designed by Mrinal Dey from Shantineketan a young, talented painter from Shantineketan, the logo is augmented by vertical strata of rainbow colors, the hues of which are reflected in the art, fabric and furnishings used a jüSTa.

The Trigger which pushed juSTa to higher pedestal of success……

It is the knowledge of the most updated luxury hotel market situation which helps to lay the foundation for studying the research trends of the same subject matter. The team of juSTa under the able guidance of Mr .Ashish, has done numerous research studies of luxury hotels during the past years. While industry reports concentrate on data that imply on the market situation and predict future development of luxury hotels, academic studies focus on more diversified and specific aspects. For example, Min (1996) used analytic hierarchy process to advance benchmarking of Korean luxury hotels. Narteh et al. (2013) looked into the relationship marketing and customer loyalty in the Ghanaian luxury hotel industry. Okumus et al. (2012) studied the career paths of women in luxury hotels. It was found that despite the increasing significance of the luxury hotel sector in the tourism and hospitality industry as well as the general economy, juSTa had taken up an unique concept of merging physical well- being with mental well- being for their clients. This alone helped them to sustain their clients and slowly they started having a good number of very loyal clients. Therefore, ideas have been formed as to what should be the current research trend of luxury hotels, or if there are any gaps between them that could be fulfilled by further study.

2.2 juSTa Pillars of the Brand

juSta has positioned differently in niche category. The ambition of the juSTa brand is to be developed as an inspirational, delivering, outstanding and contemporary experience. In this clutter of international and local brands, juSTa aims at creating a special niche for luxary hotels, allowing juSTa to be international in every way with an Indian identity.

The Four Pillars of the jüSTa brand are Luxury, Contemporary, Green, and Indian.

Luxury - Lavish and opulent environs for the artistically inclined merge with the impressive softness of natural light to offer tangible luxury. Every piece of furniture, furnishing & decor allow the senses to enjoy luxury of an extremely high comfort.

Contemporary - Everything at jüSTa is modern & fashionable. Its luxury is seamless and efficient, yet extremely comfortable. Every detail has been individually treated with a sense of aesthetics, transcending functionality, transforming the daily experience into pleasure. This present-day lifestyle is supported by a wide range of services: wireless internet connection, a restaurant with delicious cuisine and 24 hour room service.

Green - Surrounded by tranquil green environs, jüSTa isolates you from the noisy hustle and bustle of the outside world. It creates a Luxurious haven, where 'Green' becomes a continuous thread throughout the jüSTa experience.

Indian - For jüSTa, art is more than just decor. We believe that art is the ultimate expression of a culture. At jüSTa, each piece of art reflects a dimension of the Indian culture, traditional or emerging. Unique art pieces have been integrated in jüSTa's experience and play an dynamic role in delivering the brand that is distinctively India.

Business Model of juSTa

With the various technological innovations in the Business world, the hotel classification and grading system is undergoing rapid transformation. This is mainly due to the internet and the emergence of online travel agents like Trip Advisor, Expedia, Yelp and many other such companies. The increase in online travel business in India is a clear indication of dependence of travelers on the online options for travel and hotel related purchase decisions. The number of travellars is only on the rise as the Millenials are taking over the world. However, at the same time, [Nath 2013, Sharma 2013 and Chopra 2006] have questioned the effectiveness of hotel classification system of India to evaluate the hotels, as many hotels lacking basic service quality have been awarded five star rating. juSTa has made presence on Global distribution service as pioneer in serving customer with service apartment in India.

The impressive overall growth resulted in massive investment in the hotel sector and new Indian and foreign Hotel Chains made their presence on Indian landscape. The growth of Hotels in India is propelled by the increase in the tourism. The continued “Incredible India” campaign launched by Government of India has had a strong impact on the tourist arrivals in India (Thadani2005). Crisil research Annual Review 2013 highlighted the following interesting facts about the Indian Hotel Industry.

Business model of juSTa is focused on managing hotels rather than owning them, enabling it to grow at an accelerated pace with limited capital investment. This Business model allows JustA to focus on building preferred brands based on guests needs. This model allows creating greater returns for owners whilst leaving asset management and real estate to the third party owners. The model adapts to the market demand. juSTa’s directive communication organizational model is a bottom up process. The objective of the model is to develop a more effective and engaged organizational culture through uniting the people within the organization to create an environment that supports their personal success and value through the organization, and therefore increasing engagement.

3.1 Chitrashala

To support the niche temperament of juSTa , Mr. Vohra has initiated the culture of in the name of Bundi school of Art, an experience which plays tribute to creative spirit of over 36 nationals and international artists. An art residency like Chitrashala, can prove to be extremely formative for the development of artist's work and skills as they get the luxury of having entire week solely dedicated to polishing their skills and interacting with peers.

Wedding at juSTa: moving towards more diversification to cater the needs of customer, juSTa initiated a variety of customized themes and wedding packages right from the planning stage to its culmination at six exotic destinations.

3.2 Corporate Catering

It is planning to advance into the field of corporate catering. When it comes to your corporate catering needs, juSTa plans the entire event. From elegant lunches to business meetings, conventions, and special celebrations, juSTa shows all guests and employees how important they are for their success. The extensive menus offer a vast array of enticing appetizers, entrees and desserts sure to satisfy the most discerning palates.. Experts with exclusive menus and perfection design and fix the menu to suite the health and pallet of customers.

Marketing strategy

Mr. Vohra grabbed this opportunity when demand was high for a niche category of hotels in India. Being experienced in this field and have contacts to all small and big clients Expansion with value proposition by being one of first proponents to work towards luxury hospitality and mental health well –being. juSTa offers a clear cut design philosophy coupled with a distinct brand personality. The designer creates an intimate but discrete, edgy yet subtle ambiance: luxurious yet not overbearing; a residential feeling of a hotel environment but without its magnitude. This chain of small luxury hotels is capable of addressing individual requirements. Generally the hotels have less than 50 rooms, making it inviting for the guest and easy on the efficiency of staff. Mr. Ashish had built a huge network during his serving days in Oberoi. His Oberoi identity had opened many a doors during the growing days of juSTa. His market knowledge and instincts had made him take the right measures of taking property on lease rather than owning them. Mostly the lease period was from 10-18 years. His first venture was in Bangalore with 52 rooms. But he never wanted to give away Delhi where he had worked for almost more than a decade. Today juSTa is trying to grow in different parts of India catering to the taste and variety of its clientele along with its emphasis on the mental well –being thereby making an edge yet to be reached by its competitors.

Managing Human Resource

juSTa demonstrates their beliefs most significantly in the way they treat each other and by the example they set for one another. Flat in structure, juSTa empowers employees to come up with creative ideas and solution of critical issues. It gives employees a sense of recognition and satisfaction in the organization which always reelects in productivity. Mr. Vohra's strategy of success is based on clear understanding of and belief in what they do and how their employees behave. They belive that employees need a sense of dignity, pride and satisfaction in what they do. Because satisfying their guests depends on the united effort of juSTa people, most effective when they work together corporately, respect each another contributions and importance

juSTa believes in recognizing the efforts of the employees. juSTa adopts high commitment HR practices because these practices contribute to managers and supervisors affective connection to the company, leading them to feel positively satisfied with their jobs. juSTa uses existing manpower extremely productively. The HR practices promote employees in a systematic way/ HR planning starts with an identification of the HR objectives. It analyses all manpower and resources. It creates a talent pool and prepares employees for the future.

Customers compare their perceptions of service from previous dynamical experiences. Turner and Krizek (2006) in their study found that previous experiences by customers significantly influence their satisfaction and leads towards high service quality expectations. Under the modern concept of marketing, the marketing activities are dependent on the supply as required by the customer. The hotel market in the city of India is highly competitive. The competitive pressures faced by many service industries today are compelling them to seek competitive advantage, efficiency and profitable ways to differentiate themselves from others. Demand management involves four interrelated actions. Through the process of perception individuals organize and interpret their sensory impression so as to give meaning to the environment. This perception builds the level of expectation of the customers. According to Bender, "perception is in reality, the perception you give is the perception you have. juSTa has created a perception of mental health to their customer which provides a mental support of the customers visited hotel either for holidays or business. Perception and satisfaction cater the attitude and values of employees and commitment towards the customer. According to Mr. Vohra, all their employees are recruited and trained based on the overall ethos of the organization.

Challenges

The challenges it faced was getting funded from Private Equity. juSTa finally started with self-funding and maintains the same. Their first year turnover was Rs.2 ½ Crore. juSTa built 6000 service apartments from where the luxury part was cut out. Today, juSTa has 500 employees all over the country. The organizational structure at JUSTA is Head Heavy and Body slim. juSTa believes in In-House training for their employees. JUSTA is asset less and takes property lease for around 9-18 years. They have revenue share management contract. A completely different challenge had struck juSTa during the recession time. The state of turmoil in the global financial markets has generated new concern for the hospitality industry at large. As per the industry estimates, in July2008, foreign tourist arrivals grew by a 13.8%, but in October 08, the growth rate fell down to 2.8% due to recession. Despite some emerging encouraging figures, the impact of slowdown on the entire industry cannot be overlooked. Due to the global meltdown and recession, the Indian hospitality industry experienced a 64 percent fall in profit in the January-March quarter of the year 2009. The global economic slowdown has impacted both business travel as well as tourist arrivals. In fact, the negative impact of terrorism has worsened the situation.

juSTa took various steps to cope with the challenges that dawned with recession. juSTa team reached out to all their network for business, but business was going down at an accelerated speed. Things were so bad that he almost felt that his dream was coming to an abrupt end. But, since his hotel was giving luxury with economy, their clientele definitely had gone but it never came to a complete halt which somewhere gave a ray of hope for juSTa to carry on. juSTa swam the currents of recession and were able to sustain themselves.

References

Ariffin.M, AtefehMaghzi. "A preliminary study on customer expectations of hotel hospitality: Influences of personal andhotel factors."International Journal of Hospitality Management
(2012): 194-195.

Aksu, A. A., & Tarcan, E. (2002). The Internet and five-star hotels: A case study from the Antalya region in Turkey. International Journal of Contemporary Hospitality Management, 14 (2), 94-97

Barker, A.T., Aydin, N., (1994). Implications of standardisation in global markets. In: Hasan, S.S.,Kaynak, E. (Eds.), Globalisation of Consumer Markets. International Business Press (HaworthPress Inc.), New York, pp. 283}302

Chu.Y(2014)A review of studies on luxury hotels over the past two decades
http://lib.dr.iastate.edu/cgi/viewcontent.cgi?article=4920&context=etd

Dutta, S. (2010), ''What's your personal social media strategy?'', Harvard Business Review, Vol. 88No. 11, pp. 127-30

jüSTa Hotels & Resorts | Official Website www.justahotels.com

Joshi. Rosy, Kapoor. Sangam 2007, Business Environment, Kalyani Publishers, New Delhi.

Kucukusta, D., Heung, C. S., & Hui, S. (2014). Deploying self- service technology in luxury hotel brands: Perceptions of business travelers. Journal of Travel & Tourism Marketing, 31 (1), 55- 70

Milton.T 2013,Recession and its Effect in Tourism and Hospitality Industry
https://www.researchgate.net/publication/257306028

Pizam.A 2010 International Encyclopedia of Hospitality Management ISBN:9781136394157

Sufi.T;Singh.S Online and Offline Hotel Ratings A case Study of Indian Hotels,
http://www.academia.edu/28017247/

Online consumer generated content it's for real! the rise of social influence marketing

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Keywords
Social influence, social media, digital marketing, blended communication

Abstract:

The term consumer generated marketing arose with the massification of social media usage. The online world has countless possibilities and, commercially, there is growing awareness among both customers and companies of the promise and challenge of this new environment.

The main advantage of the internet for customers is that it is a new way of searching for information about products and services, and also of making comparisons and purchases easily and quickly. For companies, the commercial advantages are that it allows structural costs to be cut, a wider audience can be reached and it simplifies transactions, amongst other.

However, consumers and brands nowadays are well aware of the immense power of these digital tools as a source of expression and a way of sharing customer experiences; indeed, this informal word of mouth is becoming increasingly important as a communication tool based on social influence.

This paper strives to link these two concepts – consumer generated marketing and social influence marketing – by discussing how brands should adapt and benefit from it taking into account new business opportunities.

1. From the download internet to the sharing internet

Internet usage towards the end of its golden years in the 1990s, before the ".com" bubble burst, and at the turn of the century is very different from that of 2012. The Internet has revolutionized the way we communicate and relate with each other. E-commerce has emerged as a natural consequence of a new and exciting reality where accessing everything is just a click away. From products to services, or even ideas, all kinds of things (be they physical or virtual) can now be exchanged / acquired online. This online world is totally different from the "real world" and its specific characteristics, opportunities and challenges represent an interesting but complex object of study.

1.1. The download internet and the primacy of brands

After being used largely for emailing, internet use in the late 1990s was characterized by a massified consumer access to the websites of media companies and to diverse brands with institutional or sales websites. Consumers went online to gather information and, in some cases, to buy products and services – it was in this period that the Amazon boom took place.

At this time, brands built their websites in the knowledge that they were responding to a new information paradigm – they had to be accessible so that every consumer could find whatever information he/she wanted at any time and in any place. However, there was there little interactivity with consumers and, more importantly, companies were not exposed to the easy contact between the consumers commenting on their brands.

It was a time when brands still dominated the relationship with the consumers and, the unidirectional communication of traditional advertising still prevailed.

But Internet is no longer just a new technology but in recent years it has become a routine channel for information, communication, and shopping (Brashear *et al.*, 2009). This new means of communication and transaction has introduced significant changes in our daily lives, creating new opportunities and challenges in a world that is in constant and rapid changing. The online world has endless possibilities, and commercially, both customers and companies are becoming increasingly aware of this new promising and challenging world. Customers benefit from the Internet mainly to search for information on products and services, compare them and as an easy and timely means of purchasing. For companies, e-Commerce allows cuts to be made in structure costs, a wider audience to be reached and easier transactions.

1.2. The sharing internet and the primacy of consumers

In the Web 2.0 and its set of platforms, the contents are no longer just placed by companies but by consumers. The impact of this new phase of the internet could not have been predicted; the riots of the Arab Spring in 2011 in which many of the demonstrations and protests were summoned through social networks, notably Twitter, are an example of this. This enormous change in consumers' control of information and their willingness to get involved and participate, as clearly demonstrated in the proliferation of consumer movements, has led to some brands involving consumers, particularly the young, and calling on them to participate in consumer generated marketing.

2. The conversion of digital immigrants to online consumer generated content

Young people were the first to join social networks because, as digital natives, the electronic environment was completely natural to them; they had grown up in it and social networks were a way of satisfying their desire to share with other young people, known or unknown, regardless of physical distance, enabling them to be connected at all times. In fact it, it was only 2 to 3 years after young people started using social networks that it also became widespread among the so-called digital immigrants i.e. people who had not grown up or been educated in the digital medium but had to adapt to it as adults. The low cost of video production tools allowed simple consumers to become videos producers, some of which have gone viral thanks to their quality and relevance.

This adherence by the digital immigrants to social networks and online consumer generated content has forced companies to recognize that it was not simply a trendy phenomenon, or just for young people and they are now rethinking their marketing strategy to integrate social networks.

3. The need for blended marketing for companies

While the digital world came naturally to digital natives, digital immigrants were required to make some effort to adapt. Although everyone continues to have their life in the physical space, a new digital dimension has been added that is used to search for information, for entertainment purposes e.g. e games, and sometimes also for shopping.

But in fact, there are some disadvantages to the online world vis-à-vis the offline world; the lack of social presence and insecurity is an example of this as it makes people feel apprehensive about online shopping and companies are therefore in a constant frenzy to understand how to get round the problem (Pereira *et al.*, 2012). What companies with an online presence want to understand above all is what makes an individual shop online or not, and also why one online shop is chosen over another.

But this is not always easy as consumer behavior and online consumer behavior in particular is not stable or linear, changing according to many variables. In this context, appealing sites – with mash up maps, web cams and video content -can and will play an important role in going where the customer is, as opposed to waiting for the customer to look for the information as in traditional paradigms.

For companies, the digital component was often created outside of the marketing department and, even today, many organizations have failed to match the supply of products and services, pricing, and communication in the digital medium with that of the physical. Companies' strategies for the physical and digital mediums must be blended and integrated because consumers have always blended the two and they have obviously noticed the discrepancy between the companies' approaches.

In fact, a blended offer is essential in the decision process for longer decision processes in particular because the consumer frequently has a ROPO (Research Online Purchase Offline) performance and sometimes the reverse when the online price is better.

This gathering of information is needed to reduce cognitive dissonance and uncertainty so that a decision can be made that is seen as reasonable. The consumer uses internal information that is the result of previously acquired knowledge and experiences and external information (Solomon, 2009). To understand the differences in the purchasing process resulting from the nature of the product type, Nelson (1974) classifies products as having "search" or "experience" qualities. The search qualities can be determined by checking or evaluating the product prior to purchase, while experience qualities can only be confirmed after purchase and use.

Nelson therefore concludes that experiential products are more difficult to evaluate prior to purchase and that consumers rely more on recommendations. They tend to seek more information before taking a decision on these products. King and Balasubramanian (1944) and by Senecal and Nantel (2004) underlined this – the latter specifically in relation to the computer mediated environment.

Previous studies have proven that the social side of shopping is related to positive emotions (Jones, 1999; McGrath and Otnes, 1995) that result in positive outcomes (Hassanein and Head, 2007). Developing that side of the online shopping experience has been a concern for online vendors and several studies have been conducted to find how social presence can be induced in online sites (e.g. Wang and Emurian, 2005; Hassanein and Head, 2007; Cyr *et al*, 2007).

Other dimensions besides sociability contribute to the consumers' online shopping experience. According to Wang and Emurian (2005), both utilitarian (efficiency, timely and without irritation (Childers et al, 2001)) and hedonic (fun, playfulness and entertainment) benefits have a positive influence on the online buying experience and Web site patronage. It has been proven that hedonic benefits have a stronger impact on female customers, who give more value to the emotional side of shopping (Wang and Emurian, 2005; Cyr *et al*, 2007).

According to Kotha, Rajgopal, and Venkatachalam (2004), one way or another, investments in the provision of an online buying experience represent a viable long-term competitive advantage since the shopping experience leads to consumer responses such as satisfaction and purchase behavior (Fiore and Kim, 2007).

4. Marketing in social networks

Given the increasing use of the internet in almost every aspect of human relations, consumers' use of social networks will expose them to comments and inputs from other consumers through websites, blogs, forums, chat, and emails (Henning-Thurau et al, 2004).

Over 50% of internet users in Europe are linked to brands and this channel is impacting the consumers' decision process. For example, 70% of travelers are active members of a social network, two thirds of whom are Facebookers. Video Contents are now responsible for 60% of online traffic and a number of studies claim this figure will rise to 98% just in the next two years. According to Universal Mc Cann (2012), a distinctive characteristic of social networking is that it incorporates functions from different platforms, such as video as photos, blogging and mobile, and is an important source for consumers to share all types of content and adopt it as a personal expression platform.

Backstrom et al. (2006) analyzed the formation of groups in large social networks and concluded that the initial growth is fueled by early adopters who transfer their offline contact networks to online. They also concluded that individuals are more likely to join up if their friends are already there and if there is a prior relationship, i.e. the logic of movement en masse and social influence– the need to be where others are.

Since the emergence of social networking, companies have started using these networks as a marketing tool. Indeed, this was essential as a means of survival given that the overwhelming majority of cases used business models in which the consumer does not pay to join.

4.1. The traditional marketing tactics in social networks

The most intrusive traditional marketing tactics, such as advertising, were the first to arrive in social networks. The different shaped displays are common and their advantage over the website for advertisers is that the ads can be targeted to a specific audience in social networks, in line with the information that the actual consumer gave when signing up for the network.

Along with advertising, other forms of marketing communication that companies were accustomed to using in the physical space and traditional sites, such as sponsorship and public continue to be used.

4.2. Specific Digital Marketing tactics

Initially companies' internet presence was made through institutional sites that usually had little interactivity. Nowadays, companies are taking a similar approach more similar to that of consumers with blogs and brand pages on Facebook.

Digital marketing has also developed its own tactics that they acquire great importance depending on the product category:

- Search engine marketing, with emphasis on Google ads, in categories that the consumer does not have a strong preference for a brand and when searching for pricing options, e.g. hotels;
- The website affiliation programs, when the purchase is made online and the online seller is trying to attract new potential clients – this was the strategy followed by Amazon.

Given the large volume of online communication, to be effective it must be increasingly less intrusive and able to engage the consumer.

4.3. Brand communities

Social networks are an excellent means of contact and socialization on a topic that a group of people loves, regardless of their physical proximity. Kozinets et al. (2010) claim that social networks are communities and a space for sharing recommendations; they found that word of mouth in the community does not just increase or amplify the brand messages, but these messages and their meanings are systematically altered as they are incorporated in the community's conversations, thus changing the very process of building associations and brand equity.

As a result, it comes as no surprise that the development of brand communities is often supported by the brands, as is the case of Harley Davidson and Vespa in motorcycles, Apple in computers, the Lomo in cameras, Bimby in kitchen machines or even Nutela in chocolates. The consumer reviews on the Internet are a powerful source of recommendation and Goldenberg, Libai and Muller, (2001) demonstrated that the process of consumer decision making is strongly influenced by e-wom.

Word-of-mouth (WOM) is probably the oldest means of sharing experiences and opinions about products and services, and it is usually described as an informal and independent exchange of information between individuals (Goyette *et. al*, 2010). Today, with all the communication possibilities created by the Internet, consumers only need to interact with their computers in order to share their products reviews online (Sen and Lerman, 2007). With the proliferation of online opinion forums, e-mail referrals and customers' reviews encouraged by online stores, sharing information about buying experiences has never been easier (Bruyin and Lilien, 2008).

Typically, e-WOM comes in the form of a product or service review, recommending or discouraging others to buy the product/service by setting out arguments in favor of or against the product (Sen and Lerman, 2007). Given its wider reach, electronic word of mouth (e-WOM) has an even greater power then traditional WOM (Goyette *et. al*, 2010). A study conducted in 2007 that compared the influence of online reviews for two types of product, utilitarian products, (e.g. dishwashers and other consumer durables) VS hedonic products (e.g. Music, concerts and movies), concluded that readers were more likely to consider using consumers' reviews for utilitarian products in their decision-making. Moreover, when taking into consideration online reviews for utilitarian products, readers not only pay more attention to negative reviews but also trust them more (Sen and Lerman, 2007).

Despite the difficulty in controlling e-WOM, online retailers must take the great power of this element into consideration. Nowadays, it is not only easier for consumers to post their reviews of products online, but they are also protected by the anonymity of the Internet tools (Unsal, 2009); this fosters honest reviews that may not always be good for the company. In order to control as well as take advantage of the impact of e-WOM, managers must continuously monitor the Internet for word-of-mouth activities about their companies and use it as a tool in promoting products and services (Unsal, 2009). The importance of social networks is growing as they are a privileged space to place and access relevant information, in which "friends" serve as mediators and collaborative filters of the content that they should pay attention to. Consumers' enthusiasm can be so strong that their passion turns them into fans and we can talk about tribal marketing.

The brand communities that may have been created or supported by the brands might be at some risk from a brandjacking phenomenon in which their fans take over the brand; this constitutes a real countervailing power in relation to the marketing initiatives of brand's owners.

5. The mobile explosion

We follow the recent mobile internet explosion with smartphones; over 50% of consumers used mobile internet in the USA in 2017, and Europe is expected to follow suit. In 2017, sales of smartphones in the US rose by 87%, compared with a 3% increase in PCs (Futures Global Foresight (Computer Weekly, 2017)); this is creating a new trend that is helping to boost e-commerce: mobility. In fact, according to the same study, 10% of online buyers use their cellphones to search for the best prices online. This trend is particularly marked in travel products and services where 69% of corporate tourism books their flights using smartphones (New Media Trend Watch, 2017).

Georeferenciation, another consequence of mobility, is also assuming a leading role in the recommendation of products and services in terms of costumers' geographic location, mainly using smartphones. According to JiWire (2011), 53% of Americans are willing to provide their location if in turn they are informed of the best prices available. The proliferation of new tourism applications for mobile devices, such as TripAdvisor, Ultimate Experiences form Lonely Planet, or 3rd Planet, proves that this is a fast growing trend.

The consumer can be online 24 hours a day without losing mobility; this not only implies that businesses must be ready with a quick response but also that consumers are always in contact each other and can quickly spread their opinions about brand activity. From the consumer perspective, this new paradigm will help reduce the gap between personal and professional spheres and also lead to young people being more dependent on being constantly online. From the company perspective, it opens up new opportunities since the mobile phone is associated with geolocation and allows customers to be attracted to retail and catering offers and other local relevant content that is perhaps even filtered and commented on by friends and acquaintances.

6. Questions of privacy and ethics

According to Christiansen (2011), online consumer generated content can be developed in a non-intrusive way like Amazon with the sharing of product reviews; however, there are also examples of invasive practices like "flash cookies" that reinstate themselves even if a computer user has deleted the cookie file (Vega, 2010) or the digital-device finger-printing which tracks online activities to build profiles (Angwin & Stecklow, 2010). Christiansen (2011) claims these practices can have serious consequences in a person's life, e.g. hiring or firing decisions, pricing and assessing risks by insurance companies, political pressures or the facilitating of all types of criminal attack.

As online marketing is vital to support internet activities, consumers must be protected so as to avoid the implementation of excessively restrictive regulations. The marketing industry must be able to proactively self-regulate and legislation ought to prohibit some more invasive practices like selling names and profiles without user permission.

7. New business opportunities

Gartner, a company specialized in technological studies, states that the future will be based on social networks which will increase their capabilities in terms of e-mail services and develop characteristics that promote intercommunication. As a result the e-mail will cease to the primary means of communication by 2019. Content development by consumers in social networks brings new opportunities for companies in both communication and sales. There is a trend towards the emergence of a vast fabric of multinational micro entrepreneurs underpinned by social networking, mobile technology and open-source and co-creation. According to Universal McCann (2017), a distinctive feature of social networks is that they incorporate features from various platforms such as sharing videos and photos, blogging and mobile features, which means that they will increasingly be adopted by users to share all kinds of content and as a platform for personal expression.

Virtual meetings (video calls, video conferences and other events) doubled from 2008 to 2009 and it is estimated that the industry's income will reach USD 18.6 billion by 2015. In light l of this, emphasis should be given to storytelling in which consumers participates in the development of their own story, the SOLOMO - Social, Local and Mobile with contextually relevant communication, and even the rise of the experience associated with entertainment and games.

Ultimately, if Facebook is "the mapping of real relations for a digital world", then the future may involve the joint mapping of network relationships and those of real people, their interactions, their lives. It would be like replicating the real world in a virtual world, opening up possibilities like our avatar working in our company in the virtual world with our colleagues' avatars , all from anywhere with a mobile device and, for now, just a tap or click away (Brown, 2011). This underlines the trend and/or need of qualified resources in social networks and virtual worlds such as the growth of productivity and competitive advantages.

In fact, despite all the hype in social media, there are still many doubts about the ability of this "world" to fulfill all its promises. However, a signal of the growing importance of this channel is that 100% of the companies in the Top 100 advertisers in Advertising Age already have their own Facebook pages (Lipsman *et al.*, 2012).

At the same time, Gartner also anticipates the growing importance of this medium by forecasting that the impact of social media in business is likely to be the same as that of the internet when it first appeared (Rozwell, 2011). He argues that all companies that do not use this strategy will be left behind Austin et al., 2012) because social media not only have a strong impact in brand communication but also in sales and customer support; moreover, they can also be used for research and development and recruitment, leveraging competitive advantages. Gartner's forecasts indicate that the 20% of companies that are best able to use social media as a marketing tool by 2015 will be more profitable and leaders in their industries (Rozwell, 2011).

Moreover, security issues are increasingly a major concern for consumers; this can lead to greater resistance to linking and interacting with brands and giving personal data. As with other online media, mechanisms to control spam and unwanted messages will steadily increase. Brands will have to reinforce trust and transparency if they are to overcome this issue.

Along with the growing number of companies and brands online, we can also expect a rise in the number of users; this will lead to an intensification of the links, which will make the networks richer in terms of information and, thus, more difficult to manage. In sales, this could be a good opportunity to take advantage of social commerce, leveraging the recommendation and purchase from known consumers and therefore increasing the likelihood of purchase by potential customers. Furthermore social networks can be used as new online stores as they are the websites where people spend most of their time. Given this context brands will have to develop their ability to socialize and differentiate so as to guarantee the success of this medium, and they must take a strategic approach to this (Ray, Muhanna and Barney, 2005).

Despite the challenges, Forrester predicts that social media will become increasingly central in all marketing strategies. This is a valid idea especially for more progressive and more mature companies in this medium (Ray, Muhanna and Barney 2005).

Bibliography

Angwin, J., & Stecklow, S. (2010, October 12). 'Scrapers' dig deep for data on Web. *The Wall Street Journal*. Retrieved April 24, 2011, from http://online.wsj.com/article/SB10001424052748703358504575544381288117888.html

Austin, L., Liu, B. F., & Jin, Y. (2012, May). How audiences seek out crisis information: Exploring the social-mediated crisis communication model. *Journal of Applied Communication Research*, 40(2), 188-207.

Backstrom, L., Huttenlocker, D., Lan, X. and Kleinberg, J. (2006, August 20-23). Group formation in large social networks: membership, growth, and evolution. *Proceedings of the 12th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining*, Philadelphia, USA: ACM Press

Brashear T.G., Kayshap V., Musante M.D. and Donthu N. (2009, June), A profile of the Internet shopper: evidence from six countries, *Journal of Marketing Theory and Practice*, 7(3), 267-281.

Brown, A. (2011, March - April), Relationships, Community, and Identity in the New Virtual Society, *The Futurist*, 29-34.

Bruyin, A. and Lilien, G. (2008, September), A multi-stage model of word-of-mouth influence through viral marketing, *International J. of Research in Marketing*, 25(3), 151-163.

Childers, T.L., Carr, C.L., Peck, J. and Carson, S. (2001), Hedonic and utilitarian motivations for online retail shopping behavior, *Journal of Retailing*, 77(4), 511-535.

Christiansen, L. (2011, November-December). Personal privacy and Internet marketing: an impossible conflict or a marriage made in heaven?, *Business Horizon*, 54(6), 509-514.

Computer Weekly, *The Futures Report 2017*. Retrieved January 20, 2018, from http://www.computerweekly.com/blogs/inside-outsourcing/2011/06/17/steria.pdf

Cyr, D., Hassanein, K, Head, M. and Ivanov, A. (2007), The role of social presence in establishing loyalty in e-Service environments, *Interacting with Computers*, 19(1), 43-56.

Fiore A.M. and Kim J. (2007), An integrative framework capturing experiental and utilitarian shopping experience, *International Journal of Retail & Distribution Management*, 35(6), 421-442.

Gartner, cited in Gigaom (2017, November 3). Retrieved January 31, 2018, from http://gigaom.com/collaboration/the-future-of-work-10-ways-that-the-world-of-work-will-change-in-the-2010s/

Goldenberg, J., Libai, B., Muller, E. (2001). Talk of the network: a complex systems look at the underlying process of word-of-mouth. *Marketing Letters*, 12(3), 211-223.

Goyette I., Ricard L., Bergeron J., Marticotte (2010), e-WOM Scale: Word-of-mouth measurement scale for e-services context, *Canadian Journal of Administrative Sciences*, 27, 5-23.

Hassanein K. and Head M. (2007, January 26), Manipulating perceived social presence through the web interface and its impact on attitude towards online shopping, *International Journal of Human-Computer Studies*, 65, 689-708.

Hennig-Thurau, T., Gwinner, K., Walsh, G. and Gremler, D., (2004). Electronic word-of-mouth via consumer opinion platforms: what motivates consumers to articulate themselves on the internet?. *Journal of Interactive Marketing*, 18(1), 38-52.

JiWire (2016, November 27), *JiWire Mobile Audience Insights Report Q3 2011*. Retrieved January 31, 2013, from

http://www.jiwire.com/sites/default/files/JiWire_MobileAudienceInsightsReport_Q32011_0.pdfhttp://www.socialbakers.com/countries/continents/

Jones, M.A., (1999, July), Entertaining shopping experiences: an exploratory investigation. *Journal of Retailing and Consumer Services*, 6(3), 129–139.

King, M., Balasubramanian, S. (1994). The effects of expertise, end goal, and product type on adoption of preference formation strategy. *Journal of the Academy of Marketing Science*, 22(2), 146-159.

Kotha, S., Rajgopal, S. and Venkatachalam, M. (2004), The role of Online Buying Experience as a competitive advantage: Evidence from third party ratings foe e-Commerce firms, *Journal of Business*, 77(2), 109-133.

Kozinets, R., Valck, K., Wojnicki, A. and Wilner, S., (2010, March 1), Networked Narratives: Understanding Word-of-Mouth Marketing in Online Communities. *Journal of Marketing*, 74(2), 71-89.

Linkedin Press Center (2013, January 9), *Linkedin Facts*. Retrieved January 31, 2013, from http://press.linkedin.com/about

Lipsman, A., Mudd, G., Rich, M., & Bruich, S. (2012, March 7). The Power of “Like”: How Brands Reach and Influence Fans Through Social Media Marketing, *ComScore*.

McGrath, M.A. and Otnes, C., (1995, March), Unacquainted influencers: when strangers interact in the retail setting, *Journal of Business Research*, 32(3), 261–272.

Nelson, P. (1974, July-August). Advertising as information. *Journal of Political Economy*, 82(4), 729-754.

New Media Trend Watch (2017), *Online Travel Market*. Retrieved January, 31, 2018, from http://www.newmediatrendwatch.com/world-overview/91-online-travel-market?showall=1

Pereira, Hélia, V. Trigo, P. Dionísio, M. Cardoso, N. Miranda, R. Raminhos, P. Seabra, (2012, February), VIDEO FOR TRAVEL: Determinants of Video Content Usage Relations, *International Journal of Innovations in Business*, 1(6).

Ray, G., Muhanna, W. A., and Barney, J. B. (2005, December), Information Technology and the Performance of the Customer-Service Process: A Resource-Based Analysis, *MIS Quarterly*, 29(4), 625-652.

Rozwell, C. (2011, July 22). Business Gets Social Innovation Key Initiative, *Gartner Report* (G00214406). Retrieved January 31, 2013, from http://www.gartner.com/id=1745520

Sen, S. & Lerman, D. (2007). Why are you telling me this? An examination into negative consumer reviews on the Web. *Journal of Interactive Marketing*, 21(4), 76-94

Sénécal, S., Nantel, J. (2004). The influence of online product recommendation on consumers’ online choices. *Journal of Retailing*, 80(2), 159-169.

Solomon, M. (2009). *Consumer behavior: buying, having, and being* (8th edition). Prentice Hall, Upper Saddle River.

Universal McCann, *Wave 6*. Retrieved January 20, 2013, from

http://universalmccann.com.au/global/knowledge/view?Id=226

Unsal M. (2009), *Word of Mouse: The new word of mouth? The comparison of traditional word of mouth and rising electronic word of mouth*, Maastricht University

Vega, T. (2010, September 20). Code that tracks users' browsing prompts lawsuits. *The New York Times*. Retrieved April 24, 2011, from http://www.nytimes.com/2010/09/21/technology/21cookie.html?pagewanted=all&_r=0

Wang, Y.D., Emurian, H.H., (2005), An overview of online trust: concepts, elements, and implications, *Computers in Human Behavior*, 21(1), 105–125.

Wikipedia (2017), *Size Comparisons*. Retrived January 31, 2018, from http://en.wikipedia.org/wiki/Wikipedia:Size_comparisons#Wikipedia

Poverty, user charges and health care demand in Nigeria

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Healthcare Demand, Poverty, User-charges, Nigeria

Abstract

Healthcare in Nigeria is paid for on a cash and carry basis while out-of-pocket expenses dominate in households' payment for health care services as a result of user charges that were introduced in the early 1980s. This coupled with the persistent poverty level in Nigeria raises the question of consumers' ability and willingness to pay these user charges. Accordingly, using primary data, this study examined the possible trade-off between user charges and demand for Public Health Care Services in Nigeria. The analysis showed that increasing user fees substantially reduced the use of government health facility by low-income earners. Thus, it was recommended, among others, that government should introduce price discrimination into user fees, to be set at marginal cost. This would help avoid the adverse distribution effects of user-fees, especially, on the lower income group.

Introduction

Modern health care services in Nigeria are provided by the Federal, State and Local Government Areas (LGAs) as well as private non-governmental (profit and non-profit) organizations. The three-tiers of government operates through a network of primary, secondary and tertiary level facilities. The primary health care is largely the responsibility of the LGAs with the support of state ministries of health. Secondary health care is available and provided at the State levels while the Federal Government is responsible for providing tertiary care. The referral system is to help ensure that the primary health care services are appropriately supported. The state and federal ministries of health review the resources allocated to, and the facilities available at the secondary and tertiary levels. The major aim of the referral system is to enable all Nigerians have easy access not only to primary health care but also to both secondary and tertiary health care.

Healthcare in Nigeria is paid for on a cash and carry basis while out-of-pocket expenses dominate in households' payment for health care services. For instance, Ogunbekun et al (1999) indicated that 85 percent of the respondents in their survey sample reported paying for healthcare directly out-of-pocket, this was also supported by estimates from the Federal Ministry of Health (FMoH) (2003) which shows that over 70 percent of healthcare payments in Nigeria are made out-of-pocket. It is worthy to note that prior to this period, (that is, the 1980s) public sector health care services were virtually provided free of charge in Nigeria. With the introduction of user charges, there was an increase in the cost of care being incurred by the consumers and consequently, huge out-of-pocket payments. But given that consumer may have the willingness but not the ability to pay for these services and with huge out-of-pocket payments, there possibly will be a shift or a change in their demand for public health care services.

One vital question in this regard is that of consumers' ability and willingness to pay these user charges, especially given the level of poverty that exists in the Nigerian economy. For instance, according to the World Bank, (1996), the severity of poverty as well as the incidence of extreme poverty increased significantly between 1985 and 1992. While, the National Bureau of Statistics (NBS) (2010) reported that the proportion of the core poor increased from 6.2% in 1980 to 29.3% in 1996 and then came down to 21.8% in 2004. The NBS report further shows that the proportion of Nigerians living in poverty is increasing every year as the incidence of poverty increased from 27.2% in 1980 to 46.3%, 42.7%, 65.6%, 54.4% and 69.0% in 1985, 1992, 1996, 2004 and 2010 respectively. This consistent increase in the poverty rate does have an effect on the ability and willingness to pay these charges when consuming health care services in Nigeria

The ability and willingness to pay (which may not directly covary), therefore determines the quantum and quality of the medical care obtainable by the populace. Households may both have the willingness to pay but the ability to pay will be lacking, especially, in the poor. Yoder (1989) who tried to distinguish between the willingness to pay and the ability to pay maintained that although they may not directly covary, they are both influenced by some factors of which income and the quality of health care are very important. This was referred to as distributional effect by some studies like Gertler and Van dar Gaag (1988), because the imposition of user charges increases the welfare and medical care utilization of individuals in the top half of the income ladder while reducing those of the individual in the bottom half of the income ladder.

It is as a result of this that the study examines whether or not the imposition user charges in public sector healthcare facilities can lead to large reductions in the usage of the services of the sector or can cause shifts across types of care used. The rest of the paper is structured as follows. Closely following this introductory section is a brief review of the literature which is contained in section two. Section three outlines the methodology and data analysis while the study's findings are discussed in section four. Section five concludes the study.

2.1: Brief Review of the Literature

The introduction of user charges as a strategy for easing the health care financing crisis has been questioned, among others, on the basis of its implications for health care utilization. Dor, Gertler and Van der Gaag (1987) and Gertler and Van Der Gaag (1990) showed that the poor are two-to-three times more price responsive than the non-poor in the consumption of medical care. Thus, if prices were significantly raised in the public sector medical facilities, a large proportion of poor households would "migrate" out of this subsector. Their studies were conducted for Cote d'Ivoire and Peru respectively. Other studies that support this notion includes Litvack and Bodart (1993) for Cameroon; Lavy and Germain (1994) for Ghana; Ngugi (1999) for Kenya and Amaghionyeodiwe (2007) for Nigeria. These studies found that the introduction of user fees affected health care utilization of the consumers by reducing the usage of public health services, particularly for the poor. Deininger and Mpuga (2003) also found user fees to be particularly important in determining access to health services, particularly for the poor,

The conclusions above were confirmed by the studies of Alderman and Gertler (1989) which focused on the substitutability of public and private healthcare for the treatment of children in Pakistan, and Ching (1995) whose study examined the potential effects of user charges on the demand for children's health care across income groups in the Philippines. Moses *et al* (1992) and World Bank (1994b) pointed out that the number of women attending a public outpatient clinic for STDs in Nairobi, Kenya fell by 65 percent following the introduction of user charges, while male attendance decreased by 40 percent. In this regard, World Bank (1993) submitted that except for the rich, out-of-pocket financing couldn't cover expensive care. On the contrary, Lacroix and Alilhonou (1982) study of Benin; Akin et al. (1998) study on Sri Lanka and the World Bank (1987) study on the Philippines, showed that price had a relatively little impact on health care demand.

Nwabu and Nwangi (1986) asserted that the net welfare effect of improved health services in public clinics depends on how these services are financed. One way to raise revenue to finance these services is to charge for their use. Ching (1995), using a mixed/conditional logit parameterization of the health care demand model to study user charges, demand for children's health care and access across income groups in the Philippines confirmed that the poor are more sensitive to price changes than the rich. This has implications for the willingness to pay. Thus, user fees are regressive as was asserted by Mbanefoh, Soyibo and Anyanwu (1996) in their study of estimating Nigeria's health care demand, though, they did not empirically investigate this issue. Nwabu and Nwangi (1986) simulated the welfare effects of user charges for Kenya. Their study was based on the alternative assumption that user charges are a "pure tax" on government health services and that the revenue generated is used to improve the quality of services in government clinics. They showed that welfare loss from user charges could be reversed by a simultaneous quality improvement, which raised quality in government clinics to the same levels as that of the mission clinics. Revenue, they claimed was enough to enable the achievement of this feat. However, the welfare gains of introducing user charges in all government health facilities are likely to be offset by the attendant equity trade-off (McPake, 1993).

This equity trade-off, which was referred to as distributional effect by some studies like Gertler and Van dar Gaag (1988), is mostly between the poor and the rich. They may both have the willingness to pay but the ability to pay will be lacking in the poor. The equity trade-off was referred to as distributional effect because the imposition of user charges increases the welfare and medical care utilization of individuals in the top half of the income ladder while reducing those of the individual in the bottom half of the income ladder. Li (1996) collaborated this argument when in a study of the demand for medical care in Bolivia, he cautioned that though uniform user fees can generate substantial revenue, it is likely to reduce the utilization of medical care by the poor. As a result of this, the introduction of price discrimination, referred to as selective pricing by Nwabu and Nwangi (1986), into the user charge proposal was suggested. But its implementation might be difficult because there might be an identification problem. This deals with how you determine that a person is poor (Ching, 1995), given the asymmetry of information that may arise.

A possible solution to this might be to charge people differently based on where they reside (Ching, 1995). In this case, user charges at health facilities in poor villages can be set at levels lower than those of richer villages or even be waived for the poor (Nwabu and Nwangi 1986), especially children (Ching, 1995), who are hurt more by the introduction of user charges than as the poor in general (Gertler and Van dar Gaag, 1990). This means using geographical basis, which is referred to as health zones, to help identify the poor and consequently improve the attendant user charges (Nwabu and Nwangi, 1986). Another solution was to abolish user charges and in this case, Koch (2012) examined the impact of the abolition of user fees in South Africa, a policy implemented in 1994 for children under the age of six and the elderly, as well as pregnant and nursing mothers, are examined via regression discontinuity. His analysis focuses on provider choice decisions for curative care treatment, and potential externalities that could arise from the policy. His findings indicated that as a result of abolishing user charges, curative care demand in the public sector increase by about 7%, while those of the private sector decreased by nearly the same amount thereby implying that the abolition led to provider choice substitution.

Nimpagaritse and Berton (2011) investigated the sudden removal of user fees in all health centers and hospitals for children under 5 and women giving birth Burundi. Using a descriptive case study approach, they opined that the removal of user fees for certain groups was an equitable and necessary measure in an extremely poor country such as Burundi. However, the suddenness of the decision and the lack of preparation had critical and long-lasting consequences for the entire health system. Gertler and Van dar Gaag (1988) concluded that as long as the user charges are below the welfare neutral prices [which increases with income, (Lavy and Germain; 1994)], the policy will be welfare-improving for everyone. The degree to which the price is below the welfare neutral prices determines the improvement in welfare and medical care utilization achieved by the policy.

3.1: Methodology

This study will utilize both a Multinomial Logit Model (MNL) and Simulation techniques in investigating whether or not the imposition user charges in public sector healthcare facilities can lead to large reductions in the usage of the services of the sector or can cause shifts across types of care used.

3.1.2 The Model

In this study, a multinomial logit (MNL) model is used because we assumed that the alternative options provide distinct choices, have different attributes and can be considered to be mutually exclusive. And also, the patient's alternative choices are more than two. This is in line with nearly all studies that concentrate on provider choice, (see Mwabu, et al., 1993; Tembon, 1996; Jianghui, et al., 1997; Dor, et al., 1987; Bedi, et al., 2003).

More specifically, assuming that each ε_{ij} for all alternatives j is distributed independently and identically in accordance with the extreme value distribution, the demand for provider j (that is, the probability that a patient will choose alternative j) is given by equation 5. The demand function for a provider is thus the probability that the utility from that alternative is higher than the utility from any of the other alternatives.

$$\left(\Pr ob(Option_j \middle| H_{ij}\right) = \frac{\exp\left(\beta_j H_{ij}\right)}{\sum_{k=0}^{5}\exp\left(\beta_k H_{ik}\right)} \qquad ....5$$

The parameter of this model can be estimated using maximum-likelihood methods.
The MNL model requires that the 'independence of irrelevant alternatives' (IIA) assumption be satisfied. This assumption, however, is not realistic in many situations. Train (1990) has indicated that the IIA assumption in the MNL model is not as restrictive as it first seems. An alternative to the MNL model is the nested logit model. However as will be seen in the data section, since all our right-hand side variables are individual characteristics, the nested logit model will essentially produce the same result as the MNL (Econometric Society, 1982). In our data, the unit of observation is the individual. The estimated demand functions were then used to project (using simulation techniques) the effect of user fees on demand for health care.

3.1.3 The Data

The study utilized mainly primary data. The primary data used were individual and household-based. Both stratified random and cluster-sampling techniques were utilized. The above was supplemented with a health facility survey. Facilities were selected for interviews on the basis of proximity to a household cluster (this is a geographic area such as a village or neighborhoods of a city). A total of 9,900 households were interviewed (involving 29,700 individuals) using questionnaires. Out of this, 7,920 valid questionnaires (that is, those properly answered) were returned. This represents a response rate of 80%. Accordingly, this total of 7,920 questionnaires was used for the analysis. Households were randomly selected from both rural and urban areas. The questionnaires were administered in such a way that information obtained from the nearest cluster, was linked to a specific household in the cluster. The data were for both outpatients and inpatients in both rural and urban areas.

The survey collected socio-economic information such as household consumption, demographic characteristics, time use, income and consumption, education and health status. The health statistics provided a detailed description of health care and the incidence of morbidity thirty days prior to the survey date including information on the length of illness, choice of treatment, expenditure on consultation and drugs, travel time and cost. Other information sort includes household spending per visit, household total health spending, the composition of household's spending on health services, number of times the self-treatment option was chosen when an illness occurs. The household sample included both individuals who do not report as well as those who reported an illness within four weeks of the survey.

The facility survey collected information about infrastructure, personnel, availability of health services and drugs and fees charged. Other information about the average consultation time, net expenditure per visit, the percentage of people who reported ill or injured, government health spending and the cost recovered were also sorted. Providers' quality was measured by the availability of essential drug; the number of medical staff as an indicator of the level of human resources available at the facility which may reflect the sophistication and range of health services provided; the provision of basic adult and child health services measured by the availability of a functioning laboratory, the ability to vaccinate children and the ability to provide prenatal, postnatal and child growth monitoring services (grouped together as 'mother and baby care'); the availability of essential infrastructures like electricity and running water. It should be noted that very few studies in health economics and bio-medical literature provide useful guidelines for building or constructing health quality indices from facility-level data. Garner, Thomason and Donaldson (1990) and Peabody et al (1993) attempted to deal with this problem.

The measure of health status prior to treatment was the nature of illness, which was measured by "illness" dummy variables. This includes what the individual health problem is. Provider dummies were also constructed to capture the variations in provider characteristics. Income was measured as total household income in the month prior to the survey while the per capita monthly income was calculated using data for members of the household. The prices for each provider where not directly available were constructed from the money price and/or cost information for each provider given by care recipients. For those who utilized care, this money price and/or cost data were available, but unavailable for those who did not utilize health care. Thus, for each provider, the available (money) cost information was used to estimate cost/price. The non-monetary access utilization price was measured by travel and service time of the providers.

4.1: Estimation Results

4.1.1: Nested Multinomial Logit (NMNL) Results

The Nested Multinomial Logit (NMNL) model was estimated using full maximum likelihood estimation method. The results are presented in Table 4.5 where our focus will be on our variable of interest which is the price factors.

As stated in economic theory that price and quantity demanded of a good are negatively related implying that for many goods, at higher prices, quantity demanded declines, the study's findings indicated that the price of consultation is negatively related to the demand for modern health care in Nigeria. Thus as price increases the probability of seeking modern health care reduces. This result agrees slightly with that of Mwabu and Nwangi (1986) that showed, among others, that the demand for healthcare services in public sector clinic is highly sensitive to changes in relative money prices. The price of consultation is also significant at 1% for all the sources of care used namely private and public sector hospital as well as private and public sector clinics. This result implies that any increase in the price of consultation (a form of user fees being charged) will have two major effects namely a reduction in the probability of that facility being chosen and secondly, a reduction in the probability of choosing a modern or professional care. Given this result, it is evident that the poor will be affected more relative to the high-income earners. In fact, money (prices) can be the reason why the majority of the low-income earners (the poor) consult traditional medicine healers as well as local herb sellers especially in the rural areas, as an alternative to modern health care. For the high-income earners, they preferred private health facilities, irrespective of the fees charged. This indicates to a large extent that they seem to be much more interested in the quality of the services rendered.

In Nigeria, government workers enjoy government services at a reduced or subsidized cost as manifested by the result which showed that for the government employee variable, price, which was significant at 1% for public sector health facilities and not significant for private sector facilities, is positively related to the demand for the public sector facility but negatively related to the demand for private facility. As stated earlier, this result could be a demonstration of the policy, which entails government employees, and their families to have access to health care services at public sector health facilities free of charge or at a subsidized price. An implication of this is that the probability of government employees and their relatives choosing a public sector health facility becomes higher relative to that of a private facility. With this result, the government employee dummy can be interpreted as a price effect and not as a quality effect. This result was similar to that of Lavy and Germain (1994). Also, this, among others, might be one of the reasons why low-income earners (poor) utilize the government health care facilities than they do for the private facilities.

Another important factor is the distance (travel time), which was negatively but significantly different related to the demand for both private and public healthcare facilities. It was significance at 1%. This effect of distance was estimated with the coefficients been restricted to be equal across equations. The reason for this is to help reduce or minimize the disparity in the opportunity cost of time that will be incurred in traveling to the health facility. This has been argued to be a more important cost incurred in traveling to the health facility (Lavy and Germain, 1994) and it is equal to the time lost during travel (proportional to distance) multiplied by the hourly wage of the individual (which, on average, is proportional to income).

Table 4.5: Multinomial Logit Estimates of Choice of Health Care Provider

Variable	Public Clinic	Public Hospital	Private Clinic	Private Hospital
Characteristics of Perceived Illness				
Nature of illness acute illness (emergencies).	0.67(3.92)***	0.43(5.52)***	0.81(1.19)**	-028(-1.23)**
Access to Healthcare				
*Price factors				
Distance (travel time) [b]	-1.25(-3.63)***	-1.25(-3.63)***	-1.25(-3.63)***	-1.25(-3.63)***
Price of Consultation[c]	-0.33(-3.86)***	-0.89(-3.93)***	-1.28(-2.88)***	-2.67(-4.10)***
Government Employee	0.85(2.41)***	1.12(3.08)***	- 0.00(0.31)	-0.00(0.35)
*Quality of facility				
Drugs availability	1.34(5.81)***	1.87(2.05)***	0.32(6.40)***	0.89(5.60)***
Infrastructure	0.73(2.06)***	0.21(2.13)***	0.55(3.25)***	0.79(2.16)***
Personnel	1.08(2.04)***	0.54(2.05)***	1.02(4.21)***	0.47(5.60)***
Services	0.35(4.34)***	0.26(2.89)***	0.11(3.11)***	0.61(4.01)***
Summary Statistics: Number of Observations: 7,920 R^2 – McFadden: 0.782 -2 log likelihood: 1121.691 Chi-Square: 1060.56 P – Value: 0.0000				

't'-statistics are in brackets; 'b'- the co-efficients are restarted to be equal across equations
'c'- Price of consultation covers the fee for the service in Nigeria
(***), (**) Significant at 1% level and 5% level respectively.

If the opportunity cost is large, it discourages households from seeking professional care but if it is relatively less or small, it encourages the demand for professional care by households. This shows that the probability of seeking professional care would significantly increase if health care were more accessible. Also, any increase in non-monetary access cost may reduce the demand for professional care. For many of the low-income earners (poor) especially those in the rural areas, the travel time has been a major concern to many of them as they have to travel for long periods of time before getting to access any government healthcare facility.

Quality of services (better treatment and the availability of quality care) is an important factor in the choice of health care facility to utilize. For this study, all the quality variables used in the analysis (drug availability, infrastructure, Personnel and Services) were positively related to the demand for professional care. Also, they were all significant at 1%. This implies that households prefer health facilities with adequate and qualified health personnel, up-to-date (modern and well-functioning) infrastructure, quality, adequate and diverse health services. The consequence of this is that households will opt for health facilities where drug and diverse services are available, infrastructure is functioning well and there is qualified personnel (doctors and nurses), which they, the households, will prefer to treat them. The implication of this is that households take into account the various dimension of quality of care in making their choices of which health facility to use. Thus, the probability of a household choosing a health facility with better infrastructure as well as where drug and diverse services are available will be higher than where these quality variables are lacking. Also, the estimation result shows that households attach more importance to the probability of their being treated by qualified personnel (doctor or nurse). All these may also attract higher user charges (prices).

5.0: Conclusion

From the analysis, it is evident that the poor (low-income earners) suffers more from the imposition of user charges as it reduces their utilization level of public sector health care services. Many of the poor, even those that are not government employees prefer to utilize the government health care facilities because of the reduced prices, quality of care and distance. Also, given that many of the traditional medicine healers reside in rural areas, and that there were more government established health posts and health centers in these areas (though, many lack the basic infrastructure) the residents, therefore, have easier access to these facilities than those in the urban areas, no wonder then that most of them (the rural households) prefer to utilize mainly government facilities, traditional healers, and self-care than those in the urban areas.

Based on the above, the government should introduce price discrimination into the user fee it charges. This will help avoid the adverse distribution effects which user fees have. User fee at clinics in poorer villages and communities can be set at different levels than user fee in rich communities and as long as the user fee is below the welfare neutral prices the policy will be welfare improving for everyone. With this type of price discrimination, the clinics in richer villages or areas will be self-financing, while the facilities in poorer villages require a subsidy. Also, given that the demand for healthcare is positively related to income, the rich should be encouraged by some deliberate government policies to increase their usage or utilization level of private sector health facilities. The government should encourage the private sector health providers to improve their facilities as a way of pulling away the rich from public sector health facilities. This will help reduce the pressure on public sector health facilities as well as enable the poor and the more vulnerable groups in the society to be better targeted and provided for.

The government needs to establish more operational and equipped public sector healthcare facilities especially in the rural areas as this will increase the patronage of professional care in general and public sector health care in specific. Most of the government established health posts and health centers in these areas lack the basic infrastructure and need significant improvement to be able to provide quality care to the people. Thus, there is a need for the government to ensure that drugs, infrastructure, qualified personnel, efficient and diverse services are adequately and readily available in public sector healthcare facilities as it will lead to increased utilization of public sector health facilities even at a higher cost. This notwithstanding, since the price of consultation is negatively related to healthcare utilization, it becomes evident that any increase in these fees will reduce the chance of that facility being chosen as well as reducing the chance of choosing modern health care. Thus, government pricing of these services should also bias towards the poor.

5.1: Research Limitations and Direction for Further Research

The sample size was one of the limitations for the study. A bigger sample would have served as a better representative of the country. Another limitation is the very small number of health facilities that responded. The number of facilities was not sufficient for the study to adequately estimate the number of health personnel and thus be used in the model. This was also one of the reasons why provider computation of cost of treatment was not used. There were also limitations relating to sampling and measurement errors. The measurement error occurs when the observed values of a variable are not a full and accurate representation of the true variable. Also, most of the responses were perceptions by the households. That is, they were perceived responses. The limitations are not much of a handicap as the results obtained gave much insight into the issue of user changes and healthcare utilization in public sector health facilities in Nigeria. They will also aid policy decisions. Moreover, many of the econometric findings are backed up by the descriptive analysis.

In the future, as improved data, theory and estimation techniques become available, more services including promotive and preventive care could be analyzed in Nigeria. This kind of research will further help the government to reach members of the community even before the onset of illness. Furthermore, a rigorous analysis of the cost recovery consequences of user charges can also be done. Also, given the regressiveness of user charges, there is the need for a research on a sliding scale fee or a price discrimination policy in order to avoid unduly restricting the access to health care, especially on the part of the poor.

References

Akin, John S. and Paul Hutchinson (1999), “Health-Care Facility Choice and the Phenomenon of Bypassing”, *Health Policy and Planning* Vol. 14(2): 135-51.

Akin, J., D. Gulkey and E. Hazel (1993), " Multinomial Profit Estimation of Health Care demand: Ogun state, Nigeria", Department of Economics, University of North Carolina, hapel Hill, N.C.

Akin, J., D. Gulkey and E. Hazel (1995), "Quality of service and demand for health care services in Nigeria: A multinomial probit estimation". *Social Science and Medicine*, 40(11).

Alderman, H. and P.Gertler (1989), "The substitutability of public and private health care for the treatment of children in Pakistan". *LSMS working paper, 57*, Washington D.C. World Bank.

Alubo, S.O. (1987), 'Power and influence in medical care: an analysis of medical practice in post-colonial Nigeria' *Social Science & Medicine*, 24, (5), 453-462.

Alubo, S. O. (2001), 'The promise and limits of private medicine: health policy dilemmas in Nigeria' *Health Policy and Planning,* 16 (3), 313-321.

Amaghionyeodiwe, A. Lloyd (2008) "Determinants of the Choice of Health Care Provider in Nigeria". *Health Care Management Science*, (Forthcoming).

Anderson, J.G., (1968), “A behavioral model of families use of health services”: Center for health administration studies, University of Chicago.

Appleton, S. (1998), “The Impact of Public Services on Health Care and Illness: A Treatment Effects Model with Sample Selectivity”, *Journal of African Economies,*Vol. 7(1): 1-33.

Ayonrinde, O. L. F. (2002) “User Charges, Quality of Services and Utilization of Modern Health Care Facilities in Oyo State”. A Ph.D thesis submitted to the Department of Economics, University of Ibadan, Ibadan. Nigeria. February.

Bedi, Arjun S, Paul Kimalu, Mwangi Kimenyi, Damiano Manda, Germano Mwabu, Nancy Nafula (2003) “User Charges and Utilization of Health Services in Kenya”. *Working Paper Series* No. 381 Institute of Social Studies, The Hague-The Netherlands.

Bitran, R. (1988) “*Health care Demand Studies in Developing Countries*” Resources for Child Health, Arlington, V. A.

Bitran, R. (1990) “*Household Health care Demand Study in El Salvador, Volume II: Determinants of Demand for Curative Ambulatory Care”.* Resources for Child Health Project (REACH), John Snow, Inc., Arlington, February.

Chen, Lincoln C., Emdadul Huq, and Stan DeSouza (1981), “Sex Bias in the Family Allocation of Food and Health Care in Bangladesh”, *Population and Development Review* Vol. 7(1): 55-70.

Ching, P. (1995), "User fees, demand for children's health care and access across income groups: The Philippine case". *Social Science and Medicine,* Vol. 14, No 1.

Das Gupta, Monica (1987), “Selective Discrimination against Female Children in Rural Punjab, India”, *Population and Development Review,* Vol. 13(1): 77-100.

De Farranti, D. (1984), "Paying for health Services in Developing Countries: An Overview". *World Bank Staff Working Paper* No. 721.

Dor, Avi and Jacques van der Gaag (1987), "The Demand for Medical Care in Developing Countries: Quantity Rationing in Rural Cote d'Ivoire" *Living Standards Measurements Study Working Paper* No.35, World Bank, Washington D.C.

Dor, A., P. Gertler and J. Van der Gaag (1987), "Non-price Rationing and the Choice of Medical Care Providers in Rural Cote d'Ivoire". *Journal of Health Economics,* Vol 6, Pp 291 - 304.

Dow, H. Williams (1999) "Flexible Discrete Choice Demand Models Consistent with Utility Maximization: An Application to Health Care Demand". *American Journal of Agricultural Economics,* 81. August.

Federal Office of Statistics (1996), "*Socio-Economic Profile of Nigeria*", Lagos.

Federal Ministry of Health, (1988), "*The National Health Policy and Strategy to achieve health for all Nigerians*". Lagos, October.

Federal Ministry of Health (2003) "*Priorities for Action within the Context of Health Sector Reform Agenda*", Federal Ministry of Health, Abuja

Federal Ministry of National Planning. 1940-56, 1962-68, 1970-74, 1975-80. 1981-85. "*The Nigerian National Development Plans*". Lagos.

Federal Ministry of Health (n.d) "Policy and strategy to achieve health for all Nigerians". Lagos, October.

Federal Republic of Nigeria (1993), "*First National Rolling Plan: 1990-1992,* Lagos.

Federal Republic of Nigeria (1994), "*Second National Rolling Plan: 1991-1993*". Lagos.

Fosu, Gabriel B. (1994), "Childhood Morbidity and Health Service Utilization: Cross-national comparisons of user-related factors from DHS data". *Social Science and Medicine*, Vol. 38 (9).

Garner, P., J. Thomason, and D. Donaldson (1990) "Quality Assessment of Health Facilities in Rural Papua New Guinea." Oxford University Press.

Gertler, P. and J. Van der Gaag. (1988), "Measuring the willingness to pay for social services in developingcountries". *Living Standard Measurement Study (LSMS) working paper*, No.45, The World bank, Washington.

Gertler, P and J. van der Gaag (1990), "Willingness to Pay for Medical Care: Evidence from Two Developing Countries", Baltimore, Maryland: Johns Hopkins University Press.

Gertler, P., L. Locay. and W. Sanderson (1987), " Are User Fees Regressive? The welfare implications of health care financing proposals in Peru". *Journal of Econometrics,* Volume 36.

Heller, P. (1982), "A Model of Demand for Medical and Health Services in Peninsular Malaysia", *Social Science and Medicine* Vol. 16: 267-284.

Henderson, Gail, et al., (1994), "Equity and Utilization of Health services: Report of an eight province survey in China". *Social science and medicine*, Vol. 39(5).

Hutchinson (2001), "Combating Illness", in Ritva Reinikka and Paul Collier (eds.) *Uganda's Recover Uganda's Recovery – The Role of Farms, Firms and Government,*World Bank: Washington D.C.

Ichoku, H.E. and M. Leibbrandt (2003) "Demand for Health Care Services in Nigeria: A Multivariate Nested Logit Model" African Development Bank. Abidjan.

Jianghui, Li, Cao Suhua, and Henry Lucas, (1997) "Utilization of health services in poor rural China: An analysis using a logistic regression model". *IDS Bulletin* Vol. 28(1):

Koch, F. Steven (2012) "The Abolition of User Fees and the Demand for Health Care: Re-evaluating the Impact". Economic Research Southern Africa (ERSA) working paper 301. July. Retrieved from: https://econrsa.org/system/files/publications/working_papers/wp301.pdf

Kroeger, A. (1983), "Anthropological and social-medical health care research in developing countries". *Social Science and Medicine*.

Lacriox, Guy and E. Alihonou (1982), "An Empirical Model of Primary Health Care Demand in Benin", Working Paper, Laval University.

Lavy, Victor, and Jean-Marc Germain (1994), "Quality and Cost in Health Care Choice in Developing Countries", *Living Standards Measurement Study Paper* No. 105. World Bank, Washington D.C.

Lavy, Victor and John M. Quigley (1995), "Willingness to Pay for the Quality and Intensity of Medical Care: Low-Income Households in Ghana", *Living Standards Measurement Study Paper* No. 94. World Bank, Washington D.C.

Li, Masako (1996), "The Demand for Medical Care: Evidence from Urban Areas in Bolivia", *Living Standards Measurement Study Paper* No. 123. World Bank, Washington D.C.

Litvack, Jenny I. and Claude Bodart (1993), "User Fees Plus Quality Equals Improved Access to Health Care: Results of a Field Experiment in Cameroon", *Social Science and Medicine* Vol. 37: 369-383.

Lawson, David (2004) "Determinants of Health Seeking Behaviour in Uganda – Is it Just Income and User Fees That Are Important? *Development Economics and Public Policy Working Papers* (March). http://ageconsearch.umn.edu/handle/30553

Matji, Madibata et al. (1995) "Do User Fees Reduce the Demand for Health Care: Insights and Limitations of Service Statistics in Lesotho". *World Bank Discussion Papers, Africa Technical Department Series* 294, Chapter 4. The World Bank, Washington DC. Pp 67-84.

Mbanefoh, G. F. and A. Soyibo. (1991), "Pathways to Health Delivery in Nigeria". Paper presented to the International Health Policy Programme (IHPP) Nyon, Switzerland. November 18-22.

Mbanefoh, G.F, A. Soyibo and J. C. Anyanwa (1996), "Demand for Health Care in Nigeria: An Econometric Analysis". A Final Research Report Presented at the Writers/Author Workshop Organised by IHPP at the World Bank, March 25 to April 2.

Mwabu, G. (1989) "Non-Monetary Factors in the Household Choice of Medical Facilities". Economic Development and Cultural Change. Vol. 37, No 2, Pp 383-392.

Mwabu,G., M. Ainsworth, and A. Nyamete (1993), "Quality of Medical Care and Choice of Medical Treatment in Kenya: An Empirical Analysis. Africa Technical Department, *working paper* No.9, April, The World Bank.

Mwabu, G., Martha Ainsworth, and Andrew Nyamete, (1996), "The effect of prices, service quality and availability on the demand on the demand for medical care: Insights from Kenya". In R. Paul Shaw and Martha Ainsworth (eds.), *Financing health services through user fees and insurance: Case studies from Sub-Saharan Africa*. World Bank Discussion Papers 294, Africa Technical Department Series. Washington, D.C., World Bank.

Newbold, K. Bruce, et al, (1995), "Equity in health care: Methodological contribution to the analysis of hospital utilization within Canada". *Social Science and Medicine*, Vol.40 (9).

Ngugi, R (1999), "Health Seeking Behaviour in The Reform Process for Rural Households: The Case of Mwea Division, Kirinyaga District, Kenya", *African Economic Research Consortium Paper No. 95,* Nairobi, Kenya.

Nimpagaritse, Manasse and Maria Paola Berton (2011) "The Sudden Removal of User Fees: The Perspective of a Frontline Manager in Burundi". Health Policy and Planning, 26. Pages ii63 – ii71. doi:10.1093/heapol/czr061

Ogunbekun, I., Ogunbekun, A. and Oraton, N. (1999), 'Private healthcare in Nigeria: walking a tightrope' *Health Policy and Planning,* 14 (2), 174-181.

Peabody, J. W., O. Rahman, K. Fox, and P. Gertler (1993) "Measuring Quality in Primary Health Care Facilities in Jamaica," RAND, March.

Tembon, Andy C. (1996), "Health care provider choice: The North West Province of Cameroon". *International Journal of Health Planning and Management*, Vol. 11: 53-57.

Train K. (1990) "*Qualitative Choice Analysis*". Cambridge, MA: The MIT Press: Pp 15 – 20.

Vogel, R. (1988) "Cost Recovery in the Health Care Sector: Selected Country Case Studies in Africa". Technical Paper No 82. The World Bank, Washington, D.C.

World Bank (1987), "*World Development Report*". New York: Oxford University Press.

World Bank (1993), "*World Development Report*". New York: Oxford University Press.
Yip, Winne, Hong Wang and Yuanli Liu (1998) "Determinants of Patient Choice of medical Provider: A Case Study in Rural China". Health Policy and Planning, Volume 13, Number 3, Pp 311-322.
Yoder, R. A. (1989) "Are People Willing and Able to Pay for Health Services? *Social Science and Medicine* Vol. 29.

In-Vitro study of some medicinal plant in Edo State for reducing methanogenesis in ruminant

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Methanogenesis, Methane, Rumen, in-vitro, Medicinal plant

Abstract

The objective of this work was to evaluate the in vitro gas production characteristics of some medicinal plants and their effect on methanogenesis in ruminant animals. Medicinal plants like Azadiracta indica, Sida acuta Alstonia boneei, Newbouldia laevis among others were incubated in vitro with maize as substrate. The proximate composition of the test samples was determined prior to the in vitro study. Newbouldia laevis root, Sida acuta root, and Alstonia boneei root had high percentage crude protein (CP) of 8.75%. The values of ADF and NDF of the samples varied significantly with the ADF values ranging from 12% for Sida acuta leaves to 52% for A. indica, stem. While the NDF values were between 30% for E. Heterophylla and 71% for S. acuta roots. There was significant variation in the gas production among all the plant samples. However, Psidium guajava stem produced the highest volume of gas. Among the medicinal plants studied, Azadiracta indica stem, Astoniaboneei leaves, and Newbouldia laevis root had methane(%) reduction potential of 53.56%, 49.06%, and 41.50% respectively.

This result indicates that medicinal plants have the potential to mitigate methanogenesis in ruminants.

Introduction

Livestock production faces a number of challenges including pressure from the public to be good environmental stewards and adopt welfare-friendly practices. They often implement practices beyond those required from a regulatory standpoint to meet the demand of consumers. Ruminant livestock have been recognized as major contributors to greenhouse gases (Steinfeld *et al*., 2006). Similarly, livestock account for mainly 80% of all emission from the Agricultural sector (Steinfeld *et al.,* 2006). There are three major greenhouse gases, which are carbondioxide, methane and nitrous oxide. Methane is a potent greenhouse gas and its emission from livestock is one of the major significant contributors towards the accumulation of this gas in the environment which contributes to global warming. The global warming potential of methane is 21-times that of CO_2over 100 years (UNFCCC, 2007). Methanogenesis also known, as biomethanation is the process by which microbes known as methanogens-organisms capable of producing methane produces methane in the rumen of ruminants.

Methane emissions from ruminants reduce the efficiency of nutrient utilization; manipulation of rumen microbial ecosystem for reducing methane emission by ruminants to improve their performance is one of the most important goals for animal nutritionists. The rumen is a diverse and unique microbial ecosystem comprised of bacteria, protozoa and fungi. In therumen, hydrogen is produce during anaerobic fermentation of nutrients. This hydrogen can be used during the synthesis of volatile fatty acids (VFA's) and microbial protein synthesis. The excess hydrogen from NADH is eliminated primarily by the formation of methane produced by methanogens. Reduction of methane in ruminant livestock is a top priority for researchers across the globe. Several methods to reduce methane emissions from the rumen have been developed. These methods include processing of feeds, altering the type of ration, supplementation of unsaturated fatty acids (Johnson and Johnson 1995), defaunation (Van Nevel and Demeyer 1996), organic acids (Asanuma *et al*., 1999), halogenated methane analogues (Haque, 2001), ionophores (Kobayashi *et al.*,1992), microbial feed additives (Mutsvangwa *et al* 1992), non ionic surfactants (Lee and Ha 2003), sulphates (Kamra *et al* 2004) and herbal products (Patra *et al* 2006). The use of herbal preparations is a natural alternative to antibiotic use in animal nutrition. Plant secondary metabolites have been shown to modulate ruminal fermentation to improve nutrient utilization in ruminants (Hristov *et al.*, 1999). These compounds possess antimicrobial activity that is highly specific, which raises their possibility to target methanogens.

Research Objectives

The objectives were to determining the effect of;

medicinal plants on methanogenesis *in vitro.*

medicinal plants on *in vitro* dry matter and organic matter digestibility as well as short chain fatty acid production.

Materials and Methods

Collection and Identification of Plant Materials

Multi-stage sampling technique was used in the collection of fresh plant parts such as the leaves, stems, roots, barks fruits and seeds of medicinal plants and was carefully identified by their local, common and botanical names, as well as their uses.

Chemical Analysis

Crude protein, Ash, and Dry matter were carried out according to the procedure of AOAC (1995) Neutral detergent fiber (NDF), Acid detergent fiber (ADF) and hemicelluloses were determined using the method described by Van Soest *et al.* (1991).

Collection of rumen liquor

Rumen liquor was collected from goats at the ruminant unit of the University of Benin Teaching and Research Farm, Ugbowo Campus, Benin City. The collection was via stomach tube. The liquor was collected in the early hours of the morning into a pre warmed flask prior to feeding the animals. The flask containing the rumen liquor was taken to the laboratory where it was strained through four layers of cheese cloth. The strained liquor was mixed with a buffer solution in a ratio of 1:2. This mixture was put in a water bath and gassed with CO_2 to maintain anaerobic condition and a temperature of 39°C to keep the microorganisms alive

Buffer Preparation

The buffer was prepared a day before rumen liquor collection and maintained at a pH of 6.2 (Navaro-villa *et al.,* 2011) and temperature of 39^{o}C. The buffer used was consisting of the following reagents: Na_2HPO_4. $12H_2O$ 1.985g/l, KH_2PO_4 1.302g/l, $MgCl_2.6H_2O$ 0.105g /l, NH_4HCO_3 1.407g /l, $NaHCO_3$ 5.418g /l, NaOH 0.100g/l.

***In Vitro* Fermentation of Samples**

The *in vitro* incubation was carried out using 120 ml calibrated syringes containing the inoculums (Rumen liquor: buffer, 1:2). 200 mg of substrate was weighed into nylon bags for the incubation at 39^{o}C with 30 ml of inoculums. The bags were placed inside the syringes before the inoculum was introduced into the syringes. The syringes were fitted with silicon tube and clipped before placing them in the incubator at 39°C. The syringes containing only inoculum served as the blank while the syringes containing bags with only the substrate served as the control. The time for the commencement of incubation was noted and the syringes were monitored at three hour intervals for the next 24 hours. For each incubation time, the head space of the syringes was measured and recorded. At 24 hours of incubation, the final readings were taken and the syringes put on ice to stop further gas production.

Estimation of Methane Production by the Injection of NaOH
Methane content in fermentation gas was determined by Injecting 4mL of 40% NaOH solution into the syringes

Statistical analysis

Data collected during chemical analysis and at different incubation period were analyzed using two ways ANOVA according to the procedure of SAS (2004) and separation of means was done using Duncan New Multiple Range Test for multiple means and least significant difference (LSD) for pair mean comparison in the same SAS (2004) software.
Complete Randomised design was used in this experimental work.

Results and Discussion

Chemical Composition of some medicinal plants

Table 1: Chemical composition (%) of some medicinal plants in Edo State

Samples	CP	ASH	NDF	ADF	HEMI	OM
A. Indica stem	31.50^{a}	6.72^{ab}	62.40^{c}	52.20^{a}	10.23^{e}	93.28^{bc}
A. boneei leaves	21.00^{b}	6.40^{ab}	36.50^{f}	31.95^{c}	4.58^{f}	93.60^{bc}
C.papaya seed	14.85^{c}	6.49^{ab}	34.45^{g}	32.00^{c}	2.45^{f}	93.52^{bc}
S. acuta root	9.63^{d}	7.16^{ab}	71.40^{a}	39.00^{b}	32.40^{b}	92.85^{bc}
N. laevis root	9.63^{d}	5.27^{c}	47.15^{d}	31.50^{c}	15.65^{d}	94.74^{a}
S.acuta leaves	7.18^{e}	7.20^{a}	37.15^{e}	12.75^{f}	24.40^{c}	92.80^{c}
E.heterophylla	6.13^{e}	6.00^{bc}	30.93^{h}	17.70^{e}	13.23^{d}	94.00^{ab}
C. dactylon	6.13^{e}	7.10^{ab}	67.40^{b}	25.10^{d}	42.37^{a}	92.90^{bc}
SEM	0.41	0.35	5.13	0.84	0.85	0.35

abcdefgh = means along the same column with the same alphabet are not significantly different ($p > 0.05$)

Chemical Composition of Some Medicinal Plant Samples

Wide variations existed in the chemical composition of the medicinal plants used in this study as shown in Table 1. The crude protein (CP) content of these medicinal plants varied significantly amongst the samples. The high value of CP in *N. laevis,* root *S. acuta* root and *A. boneei* root could be responsible for their ability to decrease NH_3 production from amino acids in rumen fluid *in vitro* (Wallace *et al*., 2002). Reducing the rate of ammonia production by targeting the (hyper ammonia-producing bacteria) HAP would benefit the animal by improving the efficiency of nitrogen utilization. The high increase in ruminal fermentation of some medicinal plants could be linked or characterized by ruminal digestibility of nutrients (OM, NDF, ADF and HEMICELLULOSE) with an optimum level of efficiency of microbial protein synthesis and this is linked to the finding of Christopher, (2012). In this study protein requirements are met with microbial protein produced during the fermentation of feed nutrient and might depend on the provision of dietary energy and protein in the right ratios and amounts (Christopher, 2012). This level of NDF has been linked to stimulation of fermentation that will produce ruminal gas with high proportion of CH_4 (Moss *et al*., 2000). On the other hand, this study found that OM was high in values and slight different was observed in all plant samples.

In Vitro Gas production at different Hours of incubation

Table 2: Effect of medicinal plants on the volume of gas (ml/120mg) produced at different incubation hours

	Incubation Hours							
Medicinal Plants	3h	6h	9h	12h	15h	18h	21h	24h
Control	2.75^{a}	6.25^{a}	9.50^{abc}	13.25^{bcdef}	17.75^{abcd}	19.25^{abcd}	21.75^{abcde}	22.75^{abc}
Spondia monbin seed	3.50^{a}	6.00^{a}	10.00^{abc}	12.50^{cdef}	14.00^{d}	17.75^{bcd}	20.00^{bcde}	21.25^{abc}
Spondia monbin leaves	3.50^{a}	6.50^{a}	10.50^{abc}	14.00^{abcdef}	17.25^{abcd}	18.25^{abcd}	21.00^{bcde}	21.75^{abc}
Carica papaya seed	3.50^{a}	5.75^{ab}	12.75^{a}	18.75^{a}	22.50^{a}	23.75^{abc}	25.75^{abc}	28.50^{ab}
Euphorbia hirta	3.50^{a}	6.00^{a}	9.50^{abc}	12.75^{bcdef}	17.00^{abcd}	20.75^{abcd}	22.00^{abcde}	24.75^{abc}
*Newbouldia laevis*bark	3.50^{a}	5.75^{ab}	8.50^{bc}	12.50^{cdef}	16.50^{abcd}	17.25^{bcd}	19.25^{bcde}	22.50$_{bcd}$
Alstonia boneei leaves	3.00^{a}	6.25^{a}	11.25^{ab}	12.50^{cdef}	15.00^{bcd}	16.50^{cd}	15.75^{c}	21.00^{bc}
Azadiracta indica stem	3.00^{a}	4.25^{abc}	10.25^{abc}	16.5^{abcd}	20.00^{abcd}	22.25^{abcd}	25.50^{abc}	28.00^{ab}
pidium guajava leaves	2.75^{a}	6.25^{a}	10.25^{abc}	13.75^{abcdef}	18.75^{abcd}	20.75^{abcd}	21.75^{abcde}	23.75^{abc}
Hura crepitans	2.75^{a}	5.75^{ab}	8.25^{bc}	11.50^{def}	14.50^{cd}	16.00^{d}	18.50^{cde}	21.25^{abc}
*Alstonia boneei*roots	2.75^{a}	4.50^{abc}	9.50^{abc}	14.25^{abcdef}	16.75^{abcd}	19.00^{abcd}	20.75^{bcde}	22.50^{abc}
Sida acuta root	2.75^{a}	5.75^{ab}	13.00^{a}	17.75^{ab}	21.00^{abc}	25.25^{a}	27.00^{ab}	29.50^{a}
Newbouldia laevis root	2.75^{a}	5.50^{ab}	11.00^{ab}	16.00^{abcde}	20.25^{abcd}	24.25^{ab}	28.75^{a}	29.50^{a}
Euphorbia heterophylla	2.75^{a}	5.75^{ab}	10.50^{abc}	16.75^{abc}	21.75^{ab}	24.25^{ab}	28.75^{a}	28.75^{ab}
Psidium guajava stem	2.50^{a}	3.25^{c}	6.75^{c}	10.75^{f}	14.5^{cd}	15.75^{d}	17.00^{de}	19.50^{c}
Aspilia Africana	2.50^{a}	5.50^{abc}	9.50^{abc}	13.75^{abcdef}	16.25^{abcd}	18.00^{abcd}	20.50^{bcde}	21.50^{abc}
*Azadiracta indica*bark	2.00^{a}	4.50^{abc}	8.75^{bc}	11.25^{ef}	15.50^{bcd}	17.75^{bcd}	20.25^{bcde}	26.75^{abc}
Sida acuta root	2.00^{a}	4.25^{abc}	8.25^{bc}	13.50^{bcdef}	16.75^{abcd}	18.25^{abcd}	20.00^{bcde}	20.75^{bc}
SEM =	0.52	0.69	1.13	1.51	1.99	2.17	2.26	2.39

abcdefg = Means along the same column with the same alphabets are not significantly different (P> 0.05).

In Vitro Gas production at different Hours of incubation

Table 2. Shows the *in vitro* gas production at different hours of incubation for medicinal plants with hours ranging from 3 to 24 hours. Among samples incubated at 3hours of incubation, there was no significant difference (P> 0.05) in the total gas volume produced. At 6 hours of incubation there was no significant difference between gas production for the test samples except for *S. mombin* stem, *S. monbin* leaves, *E. hirta*, *A. boneei* leaves which had significantly (P>0.05) higher gas volumes than *P. guajava* leaves. At 9 hours of incubation a significant difference (P< 0.05) existed with *p. guajava stem* having the lowest value of gas production (mmol/g DM incubated) when compared to other plants.At the 12thhour similar observation was seen as in the 9thhour while at the 15thhour there was no significant difference (P>0.05) among plants except for *C. papaya* Seed and *S. mombin* seed showing slight difference with the former having the lowest and the latter having the highest mean value respectively. At 18 hours a significant difference (P<0.05) was observed in the volume of gas production for *P. guajava* stem, *S. acuta* leaves, *H. crepitans,* and *A. boneei* leaves when compared to others. *N. laevis*, *E. heterophylla, A. boneei* leaves were significantly different (P< 0.05) from other plants at the 21st hour of incubation. At the conclusion of the incubation period *N. laevis* and *S. acuta* leaves had the highest gas volumes which were significantly higher (P< 0.05) than *P. guajava* stem.

Some of the plants tested reduced methane productions (P < 0.001) in relation to the control and gas production, pH and fermentation efficiency were not affected (P < 0.05) by any of the plants. Some of the methane inhibitors may have adverse effects on ruminal metabolism or physiology, such as reducing digestibility (Beauchemin and McGinn2006). However,some plants decrease methane production and stimulate microbial metabolism, increasing digestibility of crude protein and cell wall constituents as well as yield of microbial biomass (Broudiscou *et al* 2002). Lack of effect on nutrient degradation *in vitro* with the inclusion of some plants accompanied by reduced methane production has been reported by Sliwinski *et al.* (2002). In this work, some of the plant samples modified methane production and thus may have the potential to improve the ruminal fermentation profile.

Effect of medicinal plants on Post *In Vitro* Gas Production Parameters.

Table 3: Effect of medicinal plants on dry matter digestibility, methane gas and SCFA Production

Medicinal Plant	SCFA (Mmmol)	CH4 (Ml/130mg)	CH4 (%)	CH4 Reduction (%)	DMD
Control	0.50^{abc}	10.75^{a}	47.99^{a}	0.00^{g}	83.27^{abc}
Sida acuta leaves	0.65^{a}	9.75^{ab}	34.05^{cde}	28.82^{bcde}	63.80^{def}
Aspilia Africana	0.47^{abc}	9.00^{abc}	43.58^{abc}	8.89^{efg}	58.27^{ef}
Psidium guajava stem	0.43^{c}	9.00^{abc}	45.74^{ab}	4.36^{fg}	87.692^{a}
Carica papaya seed	0.63^{ab}	8.75^{abcd}	31.24^{def}	34.69^{abcd}	71.54^{bcde}
Euphorbia heterophylla	0.63^{ab}	8.50^{bcd}	29.70^{def}	37.89^{abcd}	84.62^{ab}
Alstonia boneei root	0.50^{abc}	8.25^{bcde}	36.93^{bcd}	22.79^{cdef}	78.97^{abcd}
Azadiracta indica bark	0.59^{abc}	8.00^{bcde}	31.66^{def}	33.81^{abcd}	71.79^{bcde}
Newbouldia laevis root	0.65^{a}	8.00^{bcde}	27.98^{def}	41.50^{abc}	71.79^{bcde}
Jatropha curcas	0.51^{abc}	8.00^{bcde}	34.32^{cde}	28.25^{bcde}	70.77^{bcdef}
Hura crepitans	0.47^{abc}	7.75^{bcde}	37.65^{bcd}	21.28^{cdef}	68.21^{cdef}
Euphorbia hirta	0.55^{abc}	7.75^{bcde}	31.58^{def}	33.97^{abcd}	74.24^{abcd}
Psidium guajava leaves	0.52^{abc}	7.50^{bcde}	31.32^{def}	34.52^{abcd}	41.15^{g}
Spondias mombin	0.48^{abc}	7.50^{bcde}	35.53^{bcd}	25.71^{cde}	56.03^{f}
Sida acuta root	0.46^{bc}	7.25^{cde}	34.54^{cde}	27.78^{bcde}	75.64^{abcd}
Spondias mombin seed	0.47^{abc}	7.00^{cdef}	32.86^{cdef}	31.30^{bcd}	78.46^{abcd}
Newbouldia Laevis bark	0.05^{abc}	6.50^{def}	30.04^{def}	37.21^{abcd}	66.92^{def}
Azadiracta indica stem	0.62^{ab}	6.00^{ef}	22.22^{f}	53.56^{a}	69.78^{bcdef}
Alstonia boneei leaves	0.46^{bc}	5.00^{f}	24.36^{ef}	49.06^{ab}	75.89^{abcd}
SEM	0.68	0.05	3.27	6.36	4.07

abcdefg = Meansalong the same column with the same alphabet are not significantly different ($P > 0.05$)

Post *In Vitro* Gas Production Parameters of Medicinal Plants

Post *in vitro* gas production parameters of medicinal plants are presented in Table 3. It was observed in this study that medicinal plants which are low in percentage methane production were high in the short chain fatty acid (SCFA) production and observed to reduce methane production. This is in line with the utilization of dissolved H_2 for rumen fermentation modification (Pelchen and Peters, 1998). Production of high SCFA could be related to the use of large amount of the concentrate feed as reported by (Beauchemin and McGinn, 2005), and assumed to yield relatively less CH_4 per MJ of gross energy intake (Ferris *et al*., 1999).

This study shows that the high DMD value may be as a result of the rumen containing well adapted microbial population in order to make good utilization of the cellulose materials that can be later used by the animal (Bamikole, 2012). The inhibitory action of *Psidium guajava* leaves could have occurred due to presence of phytochemical constituents viz. alkaloids, saponins, steroidal rings and deoxy sugars. Furthermore, *Psidium guajava* leaves extract have shown antimicrobial activities (Elekwa *et al* 2009).

The VFA formation determines the amount of excess H_2 in the rumen which is converted to CH_4 by methanogenic bacteria (Bodas *et al*., 2012). In gas production or total VFA concentration, Reduction in CH_4 production have been mostly related to adverse effect on substrate degradation (Beauchemin and McGinn 2006)

Conclusion and Recommendation

The onus of salvaging mankind and the environment from the effects of climate change is on researchers, nutritionist and rumen microbiologist across the globe.The results obtained in this study indicate that medicinal plants have the potentials to reduce methanogenesis in ruminant.

There has been minimal adoption of practices to specifically reduce methane emission from livestock and to safeguard the environment particularly in developing countries. It is therefore recommended that inclusion of medicinal plants in ruminant livestock diet should be adopted as a strategy mitigating methanogenesis as it is generally regarded as safe.

References

A.O.A.C (1984) 14th edition. Pg 187-188. INC IIII, North Nineteenth Street, suite 210 Arlington VA 222-114

AOAC (1995). Official methods of Analysis. Association of Official Analytical chemist, (16th, edition) Washington, DC.

Asanuma, N., Iwamoto, N. and. Hino, T. (1999). Effedt of the addition of fumarate on methane production by ruminal microorganism *in vitro*, *Journal of Dairy science* 82:780-787.

Bamikole, M. A. (2012). Digestion in Ruminant animals. Lecture note. Ruminant Animal Nutrition.University of Benin, City, Nigeria. (Unpublished).

Beauchemin K A and McGinn S M. (2006). Methane emissions from beef cattle: effects of fumaric acid, essential oil, and canola oil, *Journal of Animal Science* 84: 1489–1496. http://jas.fass.org/cgi/reprint/84/6/1489.pdf

Beauchemin K.A. and McGinn S.M. (2006). Effect of various feed additives on the methane emission from beef cattle. In: *Int. Congr. Ser.*, 1293.p.152-155.

Beauchemin, K. A. and S. McGinn (2005). Methane emissions from feedlot cattle fed barley or corn diets. *Journal of Animal Science,* 83: 653-661.

Broudiscou L. P., Papon Y. And Broudiscou A. F. (2002). Effects of dry plant extracts on feed degradation and the production of rumen microbial biomass in a dual outflow fermenter. In: *Animal Feed science Technology*. 101. P. 183-189.

Christopher D. M., (2012). Use of rumen modifiers to mainpuate rumianal performance of dairy cows.All Graduate Theses and Dissertations.Paper 1238.

Elekwa I, Okereke S C and B O Ekpo, (2009). Preliminary phytochemical and antimicrobial investigations of the stem bark and leaves of Psidium guajava L, *Journal of Medicinal Plants Research* 3 (1). 045-048.

Haque, N. (2001). Environmental implication of methane production: diet and rumen ecology. Short caurse, CAS. *In Animal Nutrition*, IVRI, Izatnagar.

Hristor, N.A., McAllister, T. A., Van Herk, F.H., Cheng, K.J., Newboid, C.J., and P.R. Cheeke. (1999). Effect of Yucca schidigera on ruminal fermentation and nutrient digestion in heifers. *Journal of Animal Science.* 77: 2554-2563.

Johnson, K.A. and D.E. Johnson. (1995). Methane emissions from cattle. *Journal of Animal Science,*73:2483-2492.

Kamra, D.N., Agarwal, N. and, M.P. Yadav. (2004). methanogenesis in the rumen and the Greenhouse effect on the environment, livestock international. 8:2 and 5-8.

Kobayashi, Y., Wakita, M. and S. Hoshion. (1992). Effects of ionophore salinomycin on nitrogen and long-chain fatty acidprofiles of digesta in the rumen and the ducdenum of sheep, Animal feed science and Technology. 36:67-76. emissions ”*Nature*, vol. 344, no. 6266, pp. 529–531, 1990.

Lee, S.S. and J.K. Ha. (2003). Influences of surfactant Tween 80 on the gas production, Cellulose digestion and enzyme activities by mixed rumen organisms. *Asian-Australian Journal of Animal Science.* 16:1151-1157.

Moss AR, Jouany JP, Newbold J (2000). Methane production by ruminants: its contribution to global warming. Annales De Zootechnie., 49: 231-253.

Mutsvangwa, T., Esward, I.E., Topp, J.H. and G.F Peterson. (1992). Microbial feed additives. *Animal production*. 55: 35-40.

Navarro-Villa, A., O'Brien, M., Lopez, S.,Boland, T. and O'kiely, P. (2011). *In vitro* rumenmethane output of red clover and perennial ryegrass assayed using the gas production technique (GPT). *Animal Feed Science Technology*. 168: 152 – 164.

Patra, A.K., Kamra, D.N., N Agarwal. (2006). Effect of plant extract on *in vitro* methanogenesis, enzyme activities and fermentation of feed in rumen liquor of buffalo, *Animal feed Science and Technology*. 128: 276-291.

Pelchen, A. and K. J. Peters (1998).Methane emissions from sheep.*Small Rumin. Res.,* 27: 137 – 150.

SAS (2014). Statistical Analysis Systems SAS/STAT. Users Guide, Version 9.4. Carry North Carolina, USA 943.

Sliwinski B. J., Soliva C.R., Machmuller A. and Kreuzer M. (2002). Efficacy of plant extracts rich in secondary constituents to modify rumen fermentation. In: *Animal Science Technology*, 101. P. 101-114.

Steinfeld, H., Gerber, P., Wassenaar, T., Castel, V., Rosales, M., C. de Haan. (2006). livestock's long shadow; environmental issues and options. FAO, Rome, Italy. Ruminant Feeds. *Animal Feed Science Technology*. 48: 185-197.

UNFCCC (United Nations Framwork Convention on Climate Change). (2007). http; Unfccc. Int/ghg-emission–data/information-on-data-sources/global-warming potentials/items/3825.php.

Van Nevel, C.J. and D.I Demeyer. (1996). Control of rumen methanogenesis. Environmental Monitoring and Assessment. 42:73-97.

Van Soest, P.J., Robertson, J.B., and B.A. Lewis (1991). Methods of Dietary fiber Natural Detergent fiber and Non-Starch polysaccharides in Relation to Animal Nutrition. *Journal of Dairy science*. 74:3583-3597.

Wallace, R.J., McEwan N.R., McIntosh F.M., Teferedegne B. and C.J. Newbold (2002).Natural products as manipulators of rumen fermentation. In: *Asian-Australasian Journal of Animal Scince,* 15: 1458-1468.

Contemporary understanding of human – built environment relations

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Key words
sustainable solutions, human behaviour, built environment, environmental stress, expectations

Abstract

In the paper we systematically review the impact that research of environmental stress, namely, poor housing and poor neighbourhood quality had on contemporary understanding of human – built environment relations. It is shown that substandard quality of the house, high noise, lack of natural light in the house, poorer physical quality of urban neighborhoods, living in a low-income neighborhood etc. are linked to elevated physiological and psychological stress. We believed that built environment relations are closely connected with the attitude to waste in the neighborhood. We focus on re-design our society so that all superfluous waste is eliminated and everything that is produced can be re-used, repaired, composted or recycled back into the system. In a growing number of regions, local groups of individuals, businesses and city officials are taking significant steps towards eliminating waste in our society. We confirmed the hypotheses that there is a strong sustainable interaction between psychological processes underlying human behaviour and built environment, and that during the sustainable build environment factors, the waste management expressed that interactions nightly. We believe that the positive effects of research could be reached only with sustainable interactions between psychological processes underlying human behaviour and built environment.

We believe that the results could help the local governments to contribute to reducing climate change, protect health, create green jobs, and promote local sustainability and of course, to help to increase the interests of potential buyers' expectations for buying decisions.

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1. Introduction

In the paper we systematically review the impact that research of environmental stress, namely, poor housing and poor neighbourhood quality had on contemporary understanding of human – built environment relations. Poor housing conditions can lead to pessimism, passivity, chronic stress and general discontent (Cohen et al. 2005). Due to the economic crisis, which is part of the economic cycle and is a phenomenon when economic activities increase or decrease, it is increasingly necessary to coordinate the interests of potential buyers' expectations for buying decisions. However, problems in the real estate market are not to be exclusively attributed to the global financial and economic crisis. In the case of the housing bubble, Shiller et al. (2010) note that the strong increase in real estate prices was especially caused by psychological expectations and financial instruments that allow speculation with real estate. It is shown that substandard quality of the house, high noise, lack of natural light in the house, poorer physical quality urban neighborhoods, living in a low-income neighborhood etc. are linked to elevated physiological and psychological stress. If a purchase takes place and satisfies the buyer's needs, then it has fulfilled the buyer's expectations, and individuals' buying decisions result in their satisfaction, which becomes part of their experience. In this context, expectations can be understood as buyers' wishes or needs, or as their perception of what the supplier should offer (Lewis and Spyrakopoulos, 2001).

Through purchases, buyers look for products with features that best meet their needs, and there is a human value system behind this, that influences an individual's preferences towards certain products. People tend to decide to buy products that show their role and position in society. Although they belong to the same sub-cultural group, social class or profession, they may vary by lifestyle (Heijs et al. 2011). Build environment is close connected with living environment factors, where we observed proximity to public green areas, substandard quality of the houses, waste management, sustainable agriculture, architecture, build environment and proximity to health centers (Grum and Kobal Grum, 2015). We believed that built environment relations are closely connected with the attitude to waste in the neighborhood. In the case study: Zero waste City, Ljubljana, we focus on re-design our society so that all superfluous waste is eliminated and everything that is produced can be re-used, repaired, composted or recycled back into the system. In a growing number of regions, local groups of individuals, businesses and city officials are taking significant steps towards eliminating waste in our society. Zero Waste means strengthening the top three priority tasks in waste management - waste prevention/reduction, product reuse and material are recycling. Ljubljana is the first European capital to move towards Zero Waste.

We believe that the results could be reached only with sustainable interactions between psychological processes underlying human behaviour and built environment. Zero Waste is a critical stepping-stone to other necessary steps in the efforts to protect health, improve equity and reach sustainability. Zero Waste can be linked to sustainable agriculture, architecture, energy, industrial, economic and community development (Zero Waste International Alliance, 2015). We followed the hypotheses that there is a strong sustainable interactions between psychological processes underlying human behaviour and built environment, and that during the sustainable build environment factors, the waste management expressed that interactions nightly.

2. Background

Since market conditions changed over time, the buyers' behavior has become more complex, so they now differ in psychological and social needs and preferences. Research shows that people vary in their decision to buy a home in numerous factors (Grum and Kobal Grum, 2015). Grum and Kobal Grum (2015) in their study focus on the following ones: financial, physical, living environment and socioeconomic factors. The goal of their study was to verify the hypothetical model of psychological factors in the decision to buy real estate. It clarifies in integrated and relational way the role of psychological characteristics of real estate buyers in their expectations regarding the decision to buy which was established previously. Based on the analyses carried out the authors assume about setting up a hypothetical model of psychological factors in the decision to buy real estate, which in an integrated and relational way clarifies the role of psychological characteristics of real estate buyers in their expectations regarding the decision to purchase. As shown the living environment factors are those to which the psychological factors are most connected. The results point out four main psychological factors in the decision to buy real estate, which are: basic psychological needs, self-esteem, subjective emotional well-being and personal growth.

The model assumes that these same four psychological factors are those, which from a set of partial individual and social psychological factors integrate and connect psychological characteristics that connect potential buyers of real estate. All four factors significantly correlate with living environment factors. It also shows that psychological factors are entirely independent from financial and physical factors of real estate. It seems therefore, that when buying real estate the price, age, size, etc. are not as important as good infrastructure, quick access to everyday vital facilities, and other positive qualities of the living environment inclusive proximity to public green areas, substandard quality of the houses, waste management, sustainable agriculture, architecture, build environment and proximity to health centers. We focus on re-design our society so that all superfluous waste is eliminated and everything that is produced can be re-used, repaired, composted or recycled back into the system. In a growing number of regions, local groups of individuals, businesses and city officials are taking significant steps towards eliminating waste in our society. We highlight the case study: Zero waste City, Ljubljana. Zero Waste means strengthening the top three priority tasks in waste management - waste prevention/reduction, product reuse and material are recycling. Ljubljana is the first European capital to move towards Zero Waste. We believe that the positive effects of research could be reached only with sustainable interactions between psychological processes underlying human behaviour and built environment. This could be achieved by addressing the three pillars of sustainability (Zero Waste International Alliance, 2015):

Environment: extending the usability of consumer goods through waste prevention and reuse and repair; improving waste sorting and recycling via technical innovations.

Society: engaging communities and businesses in resource efficient behaviours through social innovation; developing multi-stakeholder approach for increased collaboration and finding solutions how this collaboration will ensure a faster transition towards resource efficiency.

Economic: boosting green jobs in the waste sector.

In ten years, the quantity of recovered materials in Ljubljana increased from 16 kg per person in 2004 to 145 kg in 2014. By 2014, the average resident produced just 283 kg of waste, 61 % of which was recycled or composted (Zerowaste Europe, 2015). This means that the amount of waste being sent to landfill decreased by 59 % in ten years, and total waste generation decreased by 15 %. This reduction is even more remarkable when considering that Ljubljana already generated relatively low amount of waste for European standards, being its generation of 2014 a 41% less than the EU average (481kg per person) (Zerowaste Europe, 2015). At the same time, average monthly waste management costs for households had fallen, reaching 7.96 € in 2014. The costs for households in Ljubljana are among the lowest in Slovenia. The average yearly cost across the country is 150 €/hhd.year, compared to less than 100 € in Ljubljana.

The influence of level of development of living environment factors on health inequalities is widely known, but there is still poor understanding of the precise relationship between area-based conditions and neighborhood environmental quality. Fobil et al. (2010) showed wide variation in levels of association between the socioeconomic variables and environmental conditions, with strong evidence of a real difference in environmental quality across the five socioeconomic classes with respect to total waste generation, waste collection rate, sewer disposal rate, non-sewer disposal, the proportion of households using public toilets. Socioeconomic conditions connected with living environment are therefore important drivers of change in environmental quality and urban environmental interventions aimed at infectious disease prevention and control if they should be effective could benefit from simultaneous implementation with other social interventions.

3 Method

We used two types of measures, one was for measuring participants' expectations, and the second was for measuring their psychological characteristics. The main questionnaire for measuring real estate expectations is the questionnaire set up within the context of broader research (blank – self identifying citation). Of the three main types of questions (Keats 2000), open-ended, multiple-choice and rank ordering, the latter two types of questions were used. Using a five-point Likert scale, the participants assessed the importance of their personal and external expectations regarding the acquisition of real estate rights. 1,676 participants volunteered. There were 545 men and 725 women. Participants' age range was from 18 to 55 years, with an average of 21.15 years (SD = 4,6). As to education, most participants have secondary education (57.3%), which is followed by graduate degree education (38.1%). As to the number of children in a joint household, the most participants are without children (45.6%). The most participants live in the city center (43.3%) or on the city outskirts (34.1%). The sample includes participants aged 18 to 55 who were selected according to cultural identity, gender, age, employment, marital or family status and economic social status.

General Need Satisfaction Scale (GNSS, Gagne 2003) was used to measure the level of satisfaction of three basic psychological needs in life. In the present study, reliability for autonomy was 0.69, 0.79 for relatedness and 0.61 for competence. Personal Growth Attitude Scale (Ryckman et al. 1996) consists of 15 items. In the present study, internal reliability was 0.87. Status motivation scale (Ryckman et al. 1990) consists of 26 items. In the present study, internal reliability was 0.77. Positive and Negative Affect Scale (PANAS; Watson et al. 1988) measures two dimensions: positive and negative effects. Positive affect refers to a state of good mood, enthusiasm and action, whereas negative affect refers to a state of depression, anxiety, distress and nervousness. In the present study, internal reliability was 0.79 for positive affect and 0.85 for negative effect. Self-esteem questionnaire (SLCS-R; Tafarodi and Swann 2001) measures two dimensions of the general self-esteem: self-liking and self-competence. Contingent Self-esteem Scale (Paradise and Kernis 2002) measures to what degree an individual's self-esteem depends on achieving standards, goals, and positive feedback. In the present study, internal reliability was 0.78.

4. Research findings and discussion

A set of questionnaire, which measures potential real estate buyers' personal expectations covers 30 variables. Eight factors explain over 71 percent of variance. Factors extracted by the factor analysis are partly covered by factors, which we have extracted from the questionnaire. With the first factor are highly saturated items, which according to the questionnaire fall within the scope of physical factors. With the second factor are highly saturated items that according to the questionnaire fall within the scope of living environment factors. With the third factor are highly saturated items that according to the questionnaire fall within the scope of socioeconomic factors. The factor analysis classifies the variables - maintenance costs and a sense of economic status - under physical factors, but the correlation in socioeconomic factors is similarly high, which is why we classify it with the set of latter factors. With the fourth factor are highly saturated items that according to the questionnaire fall within the scope of socioeconomic factors. With the fifth factor is highly saturated the item that according to the questionnaire falls within socioeconomic factors (maintenance costs), it is also highly reflected under physical factors as maintenance costs are linked to the physical condition of the real estate. With the sixth factor are highly saturated items that according to the questionnaire fall within the scope of physical factors. In the questionnaire, we classify the items under physical factors. With the seventh factor is highly saturated item, which falls within the scope of the general factors. With the eighth factor are highly saturated items that fall within financial factors. The Kaiser-Meyer-Olkin measure of sampling adequacy is 0.861. Bartlett's test (BT = 2654.756), which is statistically significant, also shows that extracted factors can be interpreted. The results are shown in Table 1.

By merging variables into four main factors: physical factors, living environment factors, socioeconomic factors and financial factors, we find that physical factors explain 79% of the variance, living environment factors 13%, socioeconomic factors 6%, while financial factors explain a total of only 1% variance. Factor analysis thus confirms the hypothesis according to which the principles related to the real estate itself were divided into four real estate factors. These are: (1) financial factors (interest rates, household income, credit availability, GDP), (2) physical factors related to physical characteristics of real estate (location, size of the apartment, presence of the balcony, natural lighting, peacefulness, age of the building and neighborhood, parking options, infrastructure of the apartment), (3) living environment factors (proximity to vital facilities, accessibility, substandard quality of the houses, waste management, agriculture, architecture, build environment) and (4) socioeconomic factors (maintenance costs, neighborly relations, sense of security, sense of social connection, sense of suitable economic status).

Table 2 shows the correlation between expectations to purchase real estate and psychological factors. These are correlations, which are according to participants, decisive to purchase real estate, namely among: financial, physical, socioeconomic and other factors, and living environment factors and basic motives and emotions and subjective well-being and self-esteem. The results show neither that physical and financial factors, which are decisive for the purchase, are not associated with psychological nor the motivational or emotional factors. Participants who expect that socioeconomic factors, such as maintenance costs, neighborly relations, sense of security, sense of social connection and sense of suitable economic status, highly contribute to their decision to buy a home, have only one psychological factor more expressed: personal growth. This correlation is low.

Variables	Factors							
	1	2	3	4	5	6	7	8
Location of the apartment	**0.814**	0.245	0.169	-0.019	0.067	-0.126	0.006	-0.005
Size of the apartment	**0.868**	0.123	0.096	0.024	0.045	-0.050	-0.031	0.090
Balcony / terrace	**0.845**	0.074	0.082	0.063	0.017	0.175	0.031	0.101
Brightness – natural lighting	**0.738**	0.208	0.207	0.048	0.131	0.221	-0.045	0.062
Open view	**0.737**	0.148	0.240	-0.047	0.295	0.127	-0.108	-0.040
Peaceful, not noisy apartment	**0.584**	0.233	0.434	0.001	0.162	0.218	-0.106	-0.030
Age of the building	**0.700**	0.195	0.121	-0.097	-0.100	0.222	0.241	-0.068
Age of the neighbourhood	**0.528**	0.255	0.183	-0.083	-0.036	0.343	0.310	0.144
Parking options	**0.614**	0.222	0.310	0.035	0.142	0.249	-0.158	-0.062
Internet access	**0.271**	0.378	0.003	0.103	0.059	0.751	0.075	-0.013
Central heating	**0.380**	0.245	0.232	0.110	-0.038	0.737	0.069	0.042
Proximity to public green area	0.215	**0.846**	0.090	0.035	-0.055	0.168	-0.030	0.078
Substandard quality of the house	0.371	**0.696**	0.206	0.158	-0.022	0.138	0.090	-0.075
Waste management	0.209	**0.857**	0.187	0.020	0.100	0.048	-0.003	0.009
Sustainable agriculture	0.298	**0.779**	0.154	0.013	-0.011	-0.006	0.126	0.013
Sustainable architecture	0.172	**0.838**	0.099	0.016	0.019	0.126	0.118	-0.012
Proximity to health centres	0.115	**0.844**	0.188	-0.069	0.143	0.151	-0.024	-0.067
Sustainable built environment	0.027	**0.792**	0.124	-0.074	0.023	0.096	-0.021	0.206
Maintenance costs	0.439	0.300	**0.363**	0.011	0.369	0.302	-0.148	0.008
Relationships with neighbours	0.282	0.261	**0.738**	0.026	0.095	0.117	0.130	0.004
Sense of security	0.367	0.243	**0.725**	0.157	0.006	0.177	-0.011	0.000
Social affiliation	0.256	0.327	**0.725**	-0.065	0.010	-0.096	0.152	0.098
A sense of economic status	0.590	0.309	**0.499**	0.027	0.014	0.104	0.178	-0.021
Other factors	0.050	0.031	-0.031	-0.038	0.406	0.014	**0.771**	0.145
When to buy property	-0.456	-0.195	0.196	-0.057	-0.157	0.065	0.212	**-0.311**
Social security	-0.072	0.149	0.104	**0.666**	0.237	0.215	-0.062	0.172
Suitable economic status	0.239	0.043	-0.103	**0.556**	0.176	-0.248	0.062	-0.396
Sense of independence	-0.090	-0.079	0.043	**0.781**	-0.155	0.041	0.004	-0.165
Sense of complacency	0.074	-0.029	-0.005	**0.833**	-0.206	0.025	-0.053	0.071
Main financial resources	-0.161	-0.060	0.010	0.136	-0.021	0.031	-0.003	**-0.742**

Table 1 Rotated factor matrix of score results of the factor scale

In contrast, the living environment factors, such as proximity to public transport, transport accessibility, proximity to kindergartens and schools, proximity to employment opportunities, shops, health centers, cultural centers, etc. are associated with both motivational and emotional factors. The participants who decide to purchase real estate mainly based on quality of living environment factors, i.e. who value proximity to schools, shops, health services, access to the home, proximity to public transport and good transport facilities and other infrastructure, better meet their basic psychological needs in all three dimensions: autonomy, competence and connectedness. This means that they have a better sense of controlling tasks and accepting challenges, they see themselves more connected with people around them, and feel more independent and autonomous in taking important decisions.

	Financial	Physical	Living environment	Socioeconomic	Other factors	Social status	Independence	Self-contentment	Autonomy	Competence	Relatedness	Status motivation	Personal growth	Self-liking	Self-competence	Contingent self-esteem	Positive affect	Negative affect
Financial	1	.255**	0.112	0.142	0.014	-0.055	0.07	0.108	0.034	0.051	0.074	-0.083	0.008	-0.05	-0.052	-0.01	-0.034	-0.001
Physical	.255**	1	.280**	0.064	.260**	-0.052	0.038	0.068	0.036	0.131	0.127	0.080	-0.037	-0.135	0.014	0.046	0.111	0.133
Living environment	0.112	.280**	1	.399**	.425**	-0.054	-0.074	0.006	.230**	.264**	.324**	-0.139	.256**	0.125	.242**	0,000	.224**	-0.161
Socioeconomic	0.142	0.064	.399**	1	.235**	-0.059	-0.024	-0.009	0.132	0.165	0.146	0.035	.220*	0.13	0.138	0.03	0.128	-0.058
Other factors	0.014	.260**	.425**	.235**	1	0.022	-0.007	0.047	0.163	0.128	.316**	-0.125	0.063	0.115	0.148	-0.094	.245**	-0.037
Social status	-0.055	-0.052	-0.054	-0.059	0.022	1	.405**	.380**	-0.105	-0.023	-0.095	.228**	0.071	-0.039	-0.013	.224**	-0.029	-0.008
Independence	0.07	0.038	-0.074	-0.024	-0.007	.405**	1	.617**	-0.101	-0.057	-0.012	.227**	-0.03	-0.083	-0.007	.268**	0.004	0.060
Self-contentment	0.108	0.068	0.006	-0.009	0.047	.380**	.617**	1	-.202*	-0.079	-0.105	.205*	-0.073	-0.053	-0.09	.231**	-0.028	0.022
Autonomy	0.034	0.036	.230**	0.132	0.163	-0.105	-0.101	-.202*	1	.564**	.572**	-.296**	.222*	.536**	.452**	-.386**	.395**	-.590**
Competence	0.051	0.131	.264**	0.165	0.128	-0.023	-0.057	-0.079	.564**	1	.490**	-.298**	.261**	.563**	.599**	-.399**	.469**	-.522**
Relatedness	0.074	0.127	.324**	0.146	.316**	-0.095	-0.012	-0.105	.572**	.490**	1	-.339**	.213*	.408**	.431**	-.294**	.472**	-.467**
Status motivation	-0.083	0.08	-0.139	0.035	-0.125	.228**	.227**	.205*	-.296**	-.298**	-.339**	1	0.082	-.350**	-.339**	.583**	-0.092	.421**
Personal grow	0.008	-0.037	.256**	.220*	0.063	0.071	-0.03	-0.073	.222*	.261**	.213*	0.082	1	.222**	0.136	-.173*	.415**	-.270**
Self-liking	-0.05	-0.135	0.125	0.13	0.115	-0.039	-0.083	-0.053	.536**	.563**	.408**	-.350**	.222**	1	.702**	-.552**	.424**	-.634**
Self-competence	-0.052	0.014	.242**	0.138	0.148	-0.013	-0.007	-0.09	.452**	.599**	.431**	-.339**	0.136	.702**	1	-.414**	.388**	-.498**
Contingent self	-0.01	0.046	0	0.03	-0.094	.224**	.268**	.231**	-.386**	-.399**	-.294**	.583**	-.173*	-.552**	-.414**	1	-.234**	.514**
Positive affect	-0.034	0.111	.224**	0.128	.245**	-0.029	0.004	-0.028	.395**	.469**	.472**	-0.092	.415**	.424**	.388**	-.234**	1	-.246**
Negative affect	-0.001	0.133	-0.161	-0.058	-0.037	-0.008	0.060	0.022	-.590**	-.522**	-.467**	.421**	-.270**	-.634**	-.498**	.514**	-.246**	1

Table 2 Correlations between expectations of potential real estate buyers and their motivational and emotional characteristics

Impact of living environment factors on psychological well-being of potential home buyers are shown below. The main hypothesis that in the decision to buy real estate there are two groups of factors: factors related to real estate - real estate factors, and factors related to persons deciding to buy real estate - psychological factors, were confirmed in the survey. With the potential decision to buy real estate are associated both real estate factors and psychological factors. Further analysis of this hypothesis showed that not all real estate factors are associated with all psychological factors, but that these connections are completely defined. Thus, it can be concluded that the main hypothesis in further analysis is partially confirmed, namely: that in the decision to buy real estate there are two groups of factors, certain real estate factors and certain psychological factors. These results are consistent with the results of the study by Morita et al. (2010), who conclude that the decision to buy real estate is associated with the level of social support and a sense of trust in those around oneself. They also refer to studies, which examine the role of locus of control (Wang et al. 2008), wherein the importance of the internal point of control and a sense of autonomy and independence is a major factor in deciding to buy real estate.

Interestingly, these factors well discriminate also psychological characteristic of the personal rivalry. According to the results, to the participants who believe that living environment factors are the most decisive factors when buying their own property, the purchase of their own real estate would also represent the feeling of personal progress and personal growth. The results also showed that those with higher demands in their own living environment factors have also higher self-esteem. This finding is confirmed as well by the results of the study by Pinto et al. (2004), who highlight the importance of stable and high self-esteem also in the decisions to buy real estate. And they also have higher subjective emotional well-being, which is also confirmed by the results of the study by Avnet et al. (2012). Hereon, it can be concluded, that to be satisfied with real estate or with living factors, in which a potential real estate is involved, high or optimally subjective emotional well-being is needed. At the same time, the collected results can be compared with the results of the examination of a relatively new phenomenon in the field of psychological factors when deciding about real estate, namely attachments or attachment to the real estate (Khozaei et al. 2012). Attachment, which in psychology is a known and quite researched phenomenon, is acquiring a new dimension through research of the users' attitude toward real estate. It seems that people, who feel it is important in what infrastructural environment they live or they would like to live, express constructive attachment to real estate also through higher subjective emotional well-being (Florek 2011).

From the real estate point of view the above stated relates to findings by Luttik (2000), who listed as the most important influences on the price and the attractiveness of real estate the characteristic and attractiveness of environment, open view, peaceful environment and good infrastructure. Anderson and Cordell (1988) in their research, like Morancho (2003) conclude that the proximity to educational institutions is essential. Similarly also note Munizzo and Virruso Musial (2009), who mention as more important factors public transport accessibility, proximity to schools and important institutions (shops, cultural centers).

Rohe et al. (2001) studied social advantages of apartment owners and established that apartment owners compared to apartment tenants express higher satisfaction with their living environment, are socially more active in their living environment, change residence less often and more frequently contribute to the social stability of the neighborhood. They note that the satisfaction level among apartment owners is higher. In the Baltimore case, apartment buyers and apartment tenants were observed and after a year and a half, it was concluded that the satisfaction of apartment buyers was higher than the satisfaction of tenants (Rohe and Stegman 1994). In a further three-year study, Rohe and Basalo (1997) determined that even after a three-year ownership the owners of apartments were still more self-satisfied as the tenants. They defined this self-satisfaction as the combination of the general satisfaction with life, apartment and neighborhood. Kleinhans and Elsinga (2010) conclude that there is a strong correlation between owning a home and the feeling of independence and self-satisfaction.

Based on the analyses carried out we can assume about setting up a hypothetical model of psychological factors in the decision to buy real estate, which in an integrated and relational way clarifies the role of psychological characteristics of real estate buyers in their expectations regarding the decision to purchase. Precisely the living environment factors are those to which the psychological factors are most connected. Model 4 points out four main psychological factors in the decision to buy real estate, which are: basic psychological needs, self-esteem, subjective emotional well-being and personal growth. The model assumes that these same four psychological factors are those, which from a set of partial individual and social psychological factors integrate and connect psychological characteristics that connect potential buyers of real estate. All four factors significantly correlate with living environment factors: basic psychological needs ($r = 0.324$), self-esteem ($r = 0.242$), subjective emotional well-being ($r = 0.224$) and personal growth ($r = 0.256$). It also shows that psychological factors are entirely independent from financial and physical factors of real estate. It seems therefore, that when buying real estate the price, age, size, etc. are not as important as good infrastructure, quick access to everyday vital facilities, and other positive qualities of the living environment. With this decision are associated fulfilled basic psychological needs, stable self-esteem, subjective emotional well-being and sense of personal growth.

It therefore appears that what potential buyers focus most on when buying real estate can be divided into two parts. In the first phase, the greatest influence on potential buyers have physical factors of real estate (79% variance), wherein in the second phase, the decision to buy is influenced by or/in largest part subjective well-being, self-esteem and feeling of personal growth is contributed from living environment factors. Together with the physical factors, they explain 92% of variation. This is confirmed also by the survey, where results show that the biggest influence on the price of housing have the factors, which are linked to the neighborhood (relations, origin, safety, tidiness, infrastructure, equipment) followed by location, financial and physical characteristics (Bourassa at al. 2003).

The results show how important influence have living environment factors (proximity to vital facilities, accessibility, substandard quality of the houses, waste management, agriculture, architecture, build environment). By merging variables (Table 1) the results show that between living environment factors is expressed as most pronounced factor – waste management. According to the Zero Waste International Alliance (www.zwia.org), Zero Waste is a goal that is ethical, economical, efficient and visionary, to guide people in changing their lifestyles and practices to emulate sustainable natural cycles, where all discarded materials are designed to become resources for others to use. Our results confirm the model of interactions between psychological and living environment factors in the decision to buy real estate. According to GURS (2016) in Ljubljana last year recorded sales of about 2700 dwellings in multi-dwelling buildings and 10 percent more than in 2014, when their turnover compared to 2013 increased by about 30 percent. Markedly also increased the number of executed real estate transactions, implying a marked revival of the real estate market. The results suggests that good living environment conditions and among them good waste management expressed positive interactions between psychological and living environment factors and lead to the decision to buy real estate. Case in Ljubljana suggests that project Zero Waste City born results in this direction: the satisfaction of the population is increasing, supply of real estate is rising, and house prices are growing. If a purchase takes place and satisfies the buyer's needs, then it has fulfilled the buyer's expectations, and individuals' buying decisions result in their satisfaction, which becomes part of their experience.

4. Conclusions

In the article, we investigated sustainable interactions between psychological processes underlying human behaviour and built environment: Case of Ljubljana - zero waste city. The main instruments for measuring the participants' expectations are questionnaires that we formed ourselves. A total of 1,676 participants took part in the survey. According to the results, we divide real estate factors into financial factors, physical factors related to physical characteristics of real estate, living environment factors and socioeconomic factors. Principles based on users' perceptions were measured by psychological scales, which have been tested in the existing, previously published studies. According to this measured, we divided psychological characteristics into motivational and emotional characteristics. On this basis, we used a created model (Grum and Kobal Grum, 2015) where we assumed a hypothetical link between expectations of potential home buyers and their motivational and emotional characteristics.

The research showed that financial and physical factors are independent from psychological ones. Expectations about price of apartment or house, location, size of apartment, natural lighting etc. are not correlated neither with motivational nor emotional factors, but they form independent areas that are related with the real estate only. It seems that affordable price and good physical condition of real estate are the most important for buyers. It could be recommended to enhance the financial politics to stimulate potential buyers to purchase a home. Living environment and socioeconomic factors both correlate with personal growth, which means that participants who value most the following characteristics of real estate: proximity to vital facilities, substandard quality of the houses, waste management, sustainable agriculture, architecture, build environment, good neighborly relations, feelings of safety, social belonging to the neighborhood etc. have higher motives of cooperation, self-improvement and self-growth than those with lower living environment and socioeconomic factors. It could be concluded that home owners would be more satisfied and integrated in living environment. The results could help the local governments to contribute to reducing climate change, protect health, create green jobs, and promote local sustainability. The results are shown that the waste management (for example Zero Waste Project) is a critical stepping-stone to other necessary steps in the efforts to protect health, improve equity and reach sustainability. Zero Waste can be linked to sustainable agriculture, architecture, energy, industrial, economic and community development (Zero Waste International Alliance, 2015). We confirmed the hypotheses that there is a strong sustainable interaction between psychological processes underlying human behaviour and built environment, and that during the sustainable build environment factors, the waste management expressed that interactions nightly.

It is interesting, therefore, that the environment factors with respect to real estate factors are associated only with socioeconomic and physical factors, but not with financial factors. Of all the real estate factors, the mostly associated with psychological factors is the environment factor, which means that with the development of positive environment factors we can increase the well-being or the sense of personal satisfaction with oneself. We note, however, that the finance is too much of an independent factor to be directly connected to psychological factors. But anyway, we believe that the results could be reached only with sustainable interactions between psychological processes underlying human behaviour and built environment.

The results suggests that good living environment conditions and among them good waste management expressed positive interactions between psychological and living environment factors and lead to the decision to buy real estate. Case in Ljubljana suggests that project Zero Waste City born results in this direction: the satisfaction of the population is increasing, supply of real estate is rising, and house prices are growing. If a purchase takes place and satisfies the buyer's needs, then it has fulfilled the buyer's expectations, and individuals' buying decisions result in their satisfaction, which becomes part of their experience.

References

Andreson, L. M., & Cordell, H. K. (1988). Influence of trees on residential property values in Athens, Georgia (U.S.A.): A survey based on actual sales prices. *Landscape and Urban Planning. 15*(1-2), 153-164.

Avnet, T., Pham, M. T., & Stephen, A. T. (2012). Consumers' trust in feelings as information. *Journal of Consumer Research, 39*(4), 720-735.

Bourassa, S. C., Hoesli, M., & Peng, V. S. (2003). Do housing submarkets really matter? *Journal of Housing Economics*,*12*, 12-28.

Cohen, D. H., Kozak, R. A., Vidal, N., Spetic, W., & Ide, R. (2005). Performance expectations and needs of the Japanese house consumer. *Forest Products Journal*, *55*(5), 37−44.

Florek, M. (2011). No place like home: Perspectives on place attachment and impacts on city management. *Journal of Town & City Management 1*(4), 346–354.

Fobil, J., May, Juergen, & Kraemer, A. (2010). Assessing the Relationship between Socioeconomic Conditions and Urban Environmental Quality in Accra, Ghana. Internationl Journal of Environment Research and Public Health, 7(1), 125-145.

Gagné, M. (2003). The role of autonomy support and autonomy orientation in prosocial behavior engagement. *Motivation and Emotion, 27*(3), 199-223. Retrieved from
http://www.springerlink.com/index/T2R181R81R8507W0.pdf

Grum, B., & Kobal Grum, D. (2015). A model of real estate and psychological factors in decision-making to buy real estate. *Urbani izziv*, 26(1), 82-91.

GURS, (2015). Poročilo o slovenskem trgu nepremičnin za leto 2015. http://www.e-prostor.gov.si/fileadmin/etn/Porocila/Letno_porocilo_za_leto_2015.pdf

Heijs, W., van Deursen, A., Leussink, M., & Smeets, J. (2011). Re-searching the labyrinth of life-styles. *Journal of Housing and the Built Environment, 26*(4), 411-425.

Keats, D. M. (2000). *Interviewing, a practical guide for students and professionals*. (Buckingham, Open University Press, Celtic Court, Ballmoor)
Khozaei, F., Ramayah, T., Hassan, A. S., & Surienty, L. (2012). Sense of attachment to place and fulfilled preferences, the mediating role of housing satisfaction. *Property Management*, *30*(3), 292-310.
Kleinhans, R., & Elsinga, M. (2010). Buy your home and feel in control: Do home ownership achieve the empowerment of former tenants of social housing ? *International Journal of Housing Policy*, *10*(1), 41-61.
Lewis, B. R., & Spyrakopoulos, S. (2001). Service failures and recovery in retail banking: The customers' perspective, *International Journal of Bank Marketing*, *19*(1), 37-47.
Luttik, J. (2000). The value of trees, water and open space as reflected by house prices in the Netherlands. *Landscape and Urban Planning*, *48*(3-4), 161-167.
Morancho, B. A. (2003). A hedonic valuation of urban green areas. *Landscape and Urban Planning, 66*(35–41).
Morita, A., Takano, T., Nakamura, K., Kizuki, M., & Seino, K. (2010). Contribution of interaction with family, friends and neighbours, and sense of neighbourhood attachment to survival in senior citizens: 5-year follow-up study. *Social Science & Medicine, 70*(4), 543-549.
Munizzo, M. A., & Virruso Musial, L. (2009). *General sales comparison approach.* (Canada: Cengage Learning)
Paradise, A. W., & Kernis, M. H. (2002). Self-esteem and psychological wellbeing: Implications of fragile self-esteem. *Journal of Social and Clinical Psychology*, *21*, 345–361.
Pinto, M. B., Mansfield, P. M., & Parente, D. H. (2004). Relationship of credit attitude and debt to self-esteem and locus of control in college-age consumers. *Psychological Reports*, *94*, 1405–1418.
Rohe, W.M, & Zandth, S., & McCarthy, G. (2001). The social benefits and costs of homeownership: A critical assessment of the research. *Joint Center for Housing Studies of Harvard University*, 1-31.
Rohe, W.M., & Basolo, V. (1997). Long-term effects of homeownership on the self-perceptions and social interaction of low-income persons, *Environment and Behavior*, *29*(6), 793-819.
Rohe, M.W., & Stegman, M. (1994). The impact of home ownership on the social and political involvement of low-income people, *Urban Affairs Quarterty 3*, 152-172.
Ryckman, R. M., Hammer, M., Kaczor, L. M., & Gold, J. A. (1990). Construction of a hypercompetitive attitude scale, *Journal of Personality Assessment*, *55*, 630-639.
Ryckman, R. M., Hammer, M., Kaczor, L. M., & Gold, J. A. (1996). Construction of a personal development competitive attitude scale, *Journal of Personality Assessment*, *66*(2) 374-385.
Shiller, R. J., Case, K. E., & Thompson A. (2010). What were they thinking? Home buyer behavior in hot and cold markets. *Brookings Papers of Economic Activity*, 265-298.
Tafarodi, R. W., & Swann, W. B., Jr. (2001). Two-dimensional self-esteem: Theory and measurement, *Personality and Individual Differences*, *31*, 653-673.
Wang, M., Chen, H., & Wang, L. (2008). Locus of control and home mortgage loan behaviour. *International Journal of Psychology*, 125–129.
Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology, 54,* 1063-1070.
Zerowaste Europe, (2015). The story of Ljubljana.
https://www.zerowasteeurope.eu/downloads/case-study-5-ljubljana/
Zero Waste International Alliance (2015). What Does Zero Waste Mean? Zero is Zero. http://zwia.org/standards/zero-is-zero/

Mediating and moderating correlates and socio-economic factors in firm creation among nascent entrepreneurs

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Keywords
Entreprneurship, nascent entrepreneurs, socio-economic factors, market intelligence

Abstract

Entrepreneurship, the creation of new ventures and firms, has been hailed as the engine that drives an economy. The creation of new firms for example, results in innovation, new products, added market competition and employment, contributing to economic growth, productivity and overall performance and thus the need to understand the correlates of Firm Creation (FC). The firm creation process includes (a) the decision to initiate the creation of a new firm, (b) the organization and identification of resources to establish the new firm, or gestation/start up process and (c) the establishment of an operational new firm.

Research has found that a close relationship exists between the nascent entrepreneur's entrepreneurial orientation traits and market orientation. Further, a market orientation suggests that an entrepreneur would make decisions as a response to Market Intelligence (MI) and Market Intelligence Gathering (MIG). Other variables such as Social Capital (SC), Relational Capital (RLC) and Structural Capital (STC) and the entrepreneurs Cognitive Capital (CGC) have been found to be significant.

Extant studies of how MO, EO and MIG affect FC have been limited to the firm level. However, this study differs from extant studies is that it will be the first to explore, in part, the market orientation construct at the individual entrepreneur level during the pre-startup phase, or gestation period of the firm creation process. Previous work by the authors found that (Knox, Austin and Egbe, 2015 and Egbe & Knox 2014) Entrepreneurial Orientation by itself is not sufficient to lead to Firm Creation. In this study, we also investigate the effects of Race, Gender, Education, Age and other socio-economic variables as correlates of FC. We found significant relationship between these socio-economic variables and firm creation.

This study used logistic regression models to assess the effects of marketing intelligence generation (MIG), entrepreneurial orientation (EO), structural capital (STC), relational capital (RLC), and cognitive capital (CGC) at the individual level, of firm creation (FC).

Impact of "One Belt, One Road" project to the economy of Central Asian countries

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Keywords
One Belt-One Road, Central Asia, Investment, Infrastructure, Trade

Abstract

"One Belt – One Road" – the Chinese initiative to create the Silk Road Economic Belt (SREB) and the Maritime Silk Road (MSR) was first announced by the Chairman of the People's Republic of China Xi Jinping during his official visit to Kazakhstan and Indonesia in 2013.

The main goal of the "One Belt – One Road" initiative lies in the exploration, formation, and promotion of a new model for international cooperation and development through strengthening of current regional bilateral and multilateral mechanism and structures of collaboration with the participation of China based on maintenance and development of the spirit Ancient Silk Road.

Central Asia, for many centuries, was a dynamic center linking regional and international communities via the historic Silk Road. Nowadays, Central Asia is tremendously important to China for several reasons. Firstly, Central Asia is the gate for China to the West. All land routes from China to Europe or South Asia pass through Central Asian countries. Secondly, three of Central Asian countries share a border with China. There are traditional -cultural links between peoples on both sides of the border. Lastly, Central Asian countries are rich in natural resources especially in hydrocarbon reserves which is more important for the lifeline of the Chinese economy. Connectivity and trade with Central Asia are considered necessary for development and stability of Chinese foreign policy.

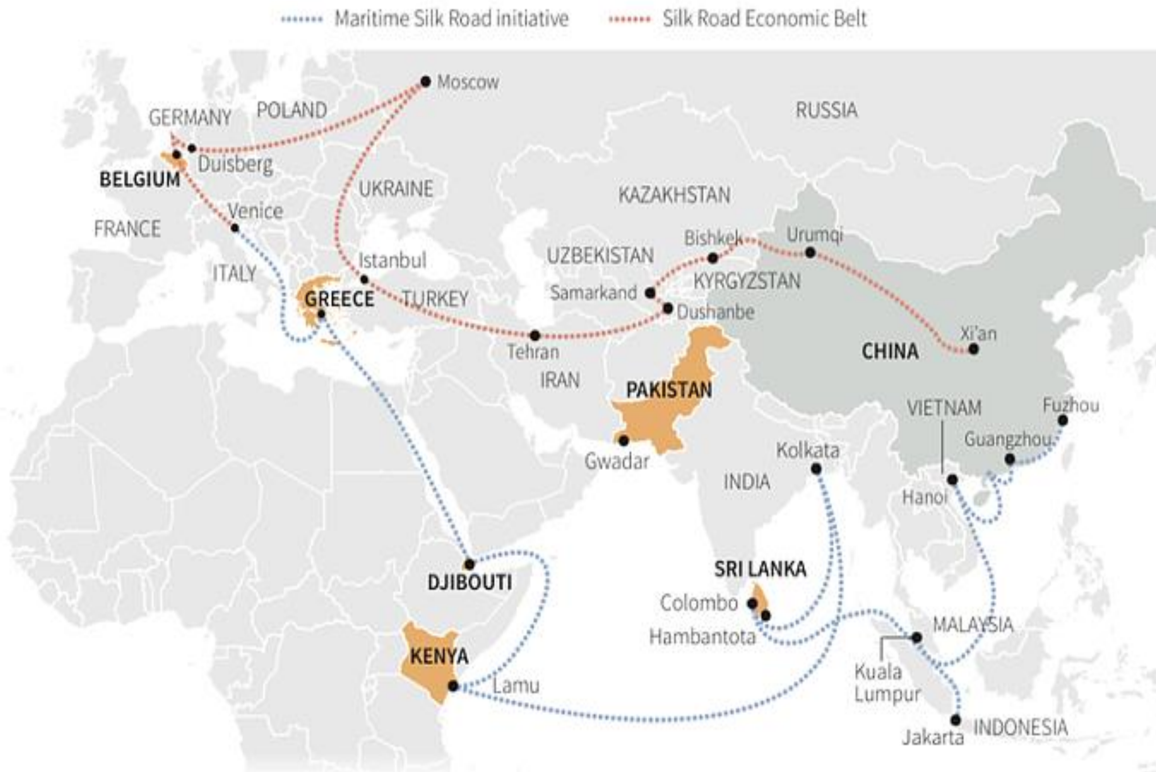
Introduction

Nowadays, China is experiencing a very rapid economic growth in world history. Still, it's unclear which model the Chinese are developing and pursuing. It's the daily question between scholars and analysts. The "One Belt – One Road" is supposed to be the answer for the future of China's long-term development goals.

Chinese President Xi Jinping launched the "One Belt – One Road" (OBOR) initiative in Nazarbayev University, in Kazakhstan in 2013 (Vision and Actions on Jointly Building Silk Road Economic Belt and 21st-Century Maritime Silk Road, 2015). One of the biggest stories in Asian business is China's "One Belt, One Road" initiative, an economic and diplomatic project that could transform trade (Peter Wolf, 2016). The implementation of this initiative could help increase trade and investment in the countries along the Belt and Road. The Belt and Road run through the continents of Asia, Europe, and Africa, connecting the East Asia economic circle at one hand and developed European economic circle at the other, and encompassing countries with huge potential for economic development. The "One Belt – One Road" is the first ambitious megaproject to connect the people of Asia to Europe and Africa within economic trade tradition and cultural ties which was never experienced in the world history. "We can use the innovative model of collaboration to build the New Silk Road economic belt together so that we forge closer economic ties between Europe and Asia and deepen our mutual collaboration to experience even greater development. This great project benefits everyone along this road. (Xi Jinping's speech at Nazarbayev University, Astana 2013)".

Official data shows more than 68 countries of the world are involved in the "One Belt - One Road" project, including new economy, developing and developed countries. "One Belt - One Road" covers 30% of global economic capacity, 55% of the world's GDP, about 70 of the world population and about 75% of the world global energy resources (Tan Zhi Xin, 2017).

Figure 1: One Belt – One Road's Map



Source: Reuters

During its four years of implementation, the project has received a remarkable result. The Chinese high-level official visited more than 25 countries, participating in the dialogue and strengthening bilateral relations. Currently, more than 30 countries signed an agreement on "One Belt – One Road" project with China. In May 2017, an international summit by "One Belt – One Road" participated by heads of 29 states and governments as well as 1200 delegation from different countries of Asia, Europe, North America, Latin America and Africa, was held in Beijing (Shannon Tiezzi, 2017). The parties discussed the real ways of promoting project "One Belt – One Road" and shared the mutual benefit from international cooperation and strengthening international cooperation. The Summit resulted to the signing of contracts for the implementation of 76 major projects based on investment, infrastructure, political communication, barrier-free trade, financial integration and ensuring the connection between people.

According to the Ministry of Commerce of China, direct investment from China to the countries which are involved in "One Belt - One Road" (almost 65 countries) increased sharply from $ 200 million in 2003 to 14.53 billion US dollars in 2016. After announcing "One Belt - One Road" initiative, contracts were signed amounting to more than 126,03 billion dollars. This mega-investment and ambitious project will have a significant impact on the nations through which it crosses.

At the "One Belt – One Road" Summit which held in Beijing, Xi Jinping mentioned that over the past three years, Chinese investments in the countries that joined the "One Belt – One Road" amounted to about $ 50 billion. In the coming years, it is planned to increase this amount to $ 200 billion (Rachel MIU, Chong Tjen-San, Chris Leiung, 2017).

"One Belt – One Road" contains about 900 different infrastructure projects (Raymond Mah, 2016) including roads, railways, ports, power stations, and bridges in more than 60 countries. For the implementation of these projects, the estimated cost will be from $ 2 to $ 3.6 trillion (Bhattacharyay et al, 2012).

Everyone is thinking that nowadays, for many countries located on the ancient Silk Road, particularly landlocked Central Asia, a historic "One Belt - One Road" trade system appears to be the only alternative for their prosperity and development. Despite increasing economic, political and cultural cooperation between China and Central Asia, the role of Central Asian countries in this project is still under consideration and under-researched. The following questions remain unaddressed: what's the benefit of the "One Belt – One Road" project to the economy of Central Asian states? How to implement this project in the region for the stability, development, prosperity, and integration of Central Asia? What specific threats exist in the "One Belt, One Road" to the economy of Central Asia in its contemporary stage?

China and Central Asia from Silk Road to "One Belt – One Road"

Looking at the political map of the world it seems that Central Asia is located in the center of the world and it has several advantages and disadvantages. Connecting one part of the world to another and being transit corridor for exporting and importing goods are the priority of locating Central Asia between the East and West. Central Asia is the place which Silk Road crosses it, it is the place that Alexander Great died, where Marco Polo searched for silk routes to Venice, and where British and Russian Empire had a Great Game. In a fact, West for most Chinese scholars and politics was Central Asia, not the modern European West. From the period of Han dynasty, Central Asia was the strategic place and the Chinese have always tried to have peaceful relations with the head of the Central Asian countries. These historical reasons are scientific basis for abandoning the term "Silk Road" as a historical concept. The Silk Road was the only shorter trade routes that connected the Chinese capital Xian with various trading centers in Central Asia, including, Samarkand and Bukhara. These centers were connected with other points like India, Iran, Middle East, and through them - with Europe.

Chinese "One Belt – One Road" project directly linked its initiative with the legacy of the ancient "Silk Road" and presented it as a project based on equality and mutual benefit, mutual open-mindedness and the sharing of knowledge culture and tradition from each other. But the goal of the "One Belt – One Road" initiative is not only the exchange of goods, services and ideas on equal terms. It is about creating new markets and routes for Chinese goods in Asia, in part because of a falling demand for them in Europe and the US.

Beijing's influence is growing fast day by day in the region. China engages in active economic interaction and invests impressive amounts of money in the implementation of projects which are vital for Central Asian countries.

In 1991, after Central Asia got its independence and after appearing as independent states in the political map, China changed its geopolitical position. Central Asia became one the priorities in the foreign policy of China. Countries in the region like Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan are rich in natural resources. The importance of the region as a strategic partner and market for the Chinese economy has been preserved until recent times.

A new factor in Beijing's policy towards Central Asia was the firm consolidation of the need to develop the western regions of the country on the agenda of China's domestic policy, as China's regional dynamics still show considerable imbalances. The western regions of China are more

connected with Central Asia. Thus, almost one-third of the total trade of the Xinjiang Uygur Autonomous Region of China today is going to Central Asia.
The actual issue for China is cooperating with the Central Asian states in fighting against terrorism, extremism and maintaining regional stability in recent years. The Chinese authorities are not interested in activating the Islamists and in their own territory - in Xinjiang Uygur Autonomous Region. The issues of combating terrorism and maintaining regional stability China and Central Asian states today decide both in bilateral format and through cooperation within the Shanghai Cooperation Organization.

The loans play a major role in ensuring the Chinese economic penetration into Central Asia. They mean financing projects at a relatively low-interest rate, but the condition of such loans is the use of Chinese materials, equipment, or labor in the performance of work. It also practices the transfer of shares in the business, the application of production sharing agreements. These practices make it possible to maximize the use of Chinese production resources, and the transfer of shares in business leads to a gradual expansion of economic presence in particular sectors of the economies of Central Asia. Investment is critically important for the Central Asian states to overcome geographic isolation from the seas, which greatly increases their transport costs and its limiting factor in the trade.

The particularity of the economic interaction of the Central Asian countries with China in recent years has been the alignment of domestic economic development programs of these states with the interests and strategy of Beijing. This is done to maximize the use of opportunities to attract Chinese financial resources.

The financial component of the project is based on the funds of the Silk Road Fund with the amount of $ 50 billion and the Asian Bank for Infrastructure Investments from $ 100 billion(Peter Wolf, 2016). In general, China is ready to invest in “One Belt – One Road” to $ 1 trillion. Until (Till-delete) now, about $ 70 billion, not including previously invested in the Central Asian region of investment in projects that will be inscribed in the "Silk Road".

A close neighbor is better than a distant relative

“In order to maintain peace and stability and to promote prosperity and development in the region friendly relationships and pragmatic cooperation with neighboring countries will be deepened, as well as unity and cooperation with developing countries will be enhanced and traditional friendship and common interests will be maintained”(12th Five-Year Plan, Chapter 53)
China always will strengthen good-neighborliness and friendship, deepen mutually beneficial cooperation in all sphere and make sure the country's neighbors will benefit more from its development (Michael Swaine, 2014).

China pursues its Central Asian policy through multilateral and bilateral channels. The main multilateral instrument is the Shanghai Cooperation Organization, which opens new opportunities for developing positive relations with the countries of the region (Liu Haiquan, 2017). Bilateral relations with every Central Asian state are just as important as multilateral relations; the only thing is that they are more significant. The fact is that bilateral relations create conditions for setting and resolving the whole range of issues. It is very important that in relations with Central Asia, China find the right balance in the development of multilateral and bilateral relations. Both have special functions and characteristics, the most interesting point is that when bilateral and multilateral relations mutually complement each other.

China is a crucial partner of the Central Asian countries in ensuring the security of borders and regional security. The security of border with the three Central Asian countries like Kazakhstan, Kirgizstan, and Tajikistan are vital for everyone. There is no any desire by the Chinese side to establish hegemony or control the region, it does not threaten the small countries, but consider them and cooperate with them as equals, it does not interfere in their internal affairs and is always ready to resolve all issues through negotiations and in the spirit of justice. This kind of foreign policy and diplomacy helped China create a positive image among Central Asian countries.

Kazakhstan is China's largest economic and trading partner in Central Asia. China and Kazakhstan have not only laid a compact basis for bilateral relations but are also working to create a reliable political, economic and strategic framework for further cooperation. Comparing to the other "One Belt One Road" countries, Kazakhstan is strategically positioned as a portal of China to Europe common border in Khorgos to the western shores of the Caspian Sea in Aktau.

In 2015, Kazakhstan and China reached an agreement on the integration of "One Belt – One Road" and the new economic policy of Kazakhstan "Nurly Zhol- Light Road". Four priority directions of the strategic cutting of "One Belt – One Road" and "Nurly Zhol" are defined: the development of bilateral trade, the accelerated expansion, and modernization of the infrastructure, the development of cooperation in the sphere of production activities and the deepening of cooperation in the financial sphere (Prospects for the CIS, informational and analytical note, 2016).

Figure 2: Map of the newly built and planned pipelines and railways in Central Asia.

Source: Bruegel

One Belt One Road project is strategic objectives of the Kyrgyz Republic in terms of infrastructure, development and investment attraction. China is very interested in building a railway connection with Uzbekistan through Kyrgyzstan. In addition to exporting Chinese goods to local markets, it is planned to use it for imports of raw materials to China. In some alternatives of the project, the road connects China through Kyrgyzstan not only with Uzbekistan but also with Tajikistan, Afghanistan, Iran, and Turkey, up to the connection with the European railway network.

Tajikistan has good relations with China, there are no any significant contradictions in their relations. China is a strategic partner of Tajikistan. Strengthening and developing bilateral relations and cooperation with this country is one of the priorities of Tajikistan's foreign policy (According to the Ministry of Foreign Affairs of the Republic of Tajikistan). The volume of bilateral trade between China and Tajikistan is satisfactorily growing. The Government of Tajikistan intends to steadily increase its efforts to further expand and deepen trade and economic cooperation, taking into account favorable conditions for geographical closeness and economic complementarity. In September 2014 signed Memorandum between the National Development and Reform Commission (NDRC) of the People Republic of China and the Ministry of Economic Development and Trade of the Republic Tajikistan which it is focusing in on the integration of the country's development plans with the implementation of the One Belt One Road initiative as an important chance for the economic development of the country. Tajikistan was one of the first countries which sighed Memorandum of understanding on One Belt One Road Project with China. China has invested in the repair and reconstruction of several important highways, which it considers as important for both sides. Chinese company of TBEA took part in the construction of a unified energy network of the Republic and the establishment of a Cogeneration plant in Dushanbe. China is primarily investing in the extraction of natural resources. One of the first notable presence of Chinese investments in the Zarafshan joint venture for the extraction and processing of gold (Sophie Ibbotson, Max Lowell-Hoare, 2018). In addition, a decision was made to build an industrial town, of which 500 million dollars were allocated, and which should include the construction of factories for the production of pyrotechnics, lead, batteries, and cement.

Tajikistan and China are actively cooperating on the world stage, in particular within the Shanghai Cooperation Organization. The two countries have similar positions in many international and regional issues.

Turkmenistan is standing apart in Central Asia. It adheres neutrality in foreign policy, and no willingness to join any regional organizations, including the Shanghai Cooperation Organization, and cooperating with all countries from a distance. Nevertheless, China has good, friendly relations with Turkmenistan. As Turkmenistan is rich in natural resources, especially natural gas can be accessed from Central Asia to West Asia, the Middle East, and Europe which makes Turkmenistan very significant in terms of energy and transport. Therefore, China seeks to develop good relations with Turkmenistan, especially in the field of trade and energy resources (Fehér-Szunomár, 2009).

The great opportunity is related to the opening of the International Port in Turkmenbashi. With the implementation of this project, it will be possible to send cargo via the international port of Turkmenbashi from China, Japan, Korea, as well as from Central Asia, to the Iranian port of or Azerbaijan.

Modern equipment was used in the construction of several infrastructure facilities, two railway stations, as well as an oil terminal at the customs post-Imamnazar. All this has conditioned the compliance of the first phase of the international railroad Turkmenistan - Afghanistan - Tajikistan with international standards which its linking Afghanistan, Tajikistan and Turkmenistan easy access to China, India, and Pakistan.

Uzbekistan differs from the others Central Asian countries because of there is no common border with China, and it reduces the possibility of conflicts in matters of the border, water resources or other critical issues. From the point of transit potential Uzbekistan has a great advantage as a position in the center of the region and a developed network of railways and highways.

China and Uzbekistan have no serious political differences, and they managed to bring their relationship to the level of generous partnership. Nowadays, China and Uzbekistan are striving to improve transport links. The communication between these countries goes mostly through the territory of Kazakhstan, which leads to rather high transit costs. It is assumed that if the transport problem can be solved, the volume of bilateral trade can be more and more. Energy can make a significant contribution to bilateral relations and improve the status of Uzbekistan in Chinese foreign policy. Oil and gas are the main interest of China to Uzbekistan.

If Beijing builds China-Kyrgyzstan-Uzbekistan-Turkmenistan-Iran-Persian Gulf railway corridor with the possible exit from Iran through Turkey to Europe planned by the "One Belt – One Road" this section will be its element ensuring the inclusion of Uzbekistan in the global network of logistics routes (Mirzokhid Rahimov, 2016). After implementing this project, Uzbekistan will get a direct exit not only to China but also to the Middle East.

Benefit and challenges of "One Belt – One Road" to Central Asia

It is impossible to deny China's obvious interests to Central Asia. Without any doubt, countries participating in the project can and should find and occupy the maximum economic and political benefits for themselves. Central Asia located in the heart of Asia, at the crossroads of two continents (Fauzia Nasreen, 2016), has serious chances to get maximum benefits from the implementation of the Chinese initiative of economic cooperation. Taking into account the absence of the access to the sea for several central Asian countries Chinese project is the best option for solving this issue. Moreover, the overland route has a great advantage over the sea route in the form of the speed of delivery of goods for example from China to Europe, the train can get in 15 days, which is twice as fast as in the sea.

Thus, Central Asia can use the opportunities and resources of the “One Belt – One Road” to actively promote domestic products to new markets - to China and other countries along the Belt, to attract investment in the development of basic sectors of the national economy, more fully implement their logistics advantages.

In Central Asia, there are some worries regarding the flow of migrants from China (Francisco Gomez Martos, 2017). Chinese companies like to use their own material for construction infrastructure their own people and bring Chinese labor to get a job done. It doesn’t give people local jobs and employ local specialists. The dominance of Chinese companies in major projects in Central Asia can be challenging for the local companies. And they cannot be in a competition with the Chinese company who has a deep pocket in finance.

Another challenge is the increasing terrorism and extremism groups which is threatening the implementation of the One Belt One Road initiative. There will be long highways, ports and bridges along the Belt which unfortunately will possibly be the main target of these groups.

Conclusion

China is trying to maintain close relations with other countries, especially with its neighbors. As China’s population rapidly increases, it tends to move its people around the world and provide them with food and jobs. The Chinese initiative is still in the initial years of implementation and has a huge impact on the Central Asian economy. New market opportunities are available along this huge initiative. The initiative is providing a chance for Central Asia to construct infrastructure such as roads and railways, and provide access to modern technology, transport, and logistics.

In the last 20 years, Central Asia countries have experienced rapid economic growth averaging 7 percent (ankura.com) and investment from China increased which lead to continued economic growth.

Step by step the character of international policy is becoming more complicated because of new rules, new actors and new competition. If the competition is totally free and geared towards prosperity and development of the region, it will be great, never forget that behind everything is retaining something different. Let’s hope for the prosperity of this world and wait what will happen tomorrow. Somehow, it’s impossible to predict or expect the outcome of initiative while it's still in progress.

References

Alexander Cooley, Russia and China in Central Asia, Norwegian Institute of Internal Affairs, 2015;

Alexander Cooley, The Emerging Political Economy of OBOR, The Challenges of Promoting Connectivity in Central Asia and Beyond, Report of The CSIS Simon Chair in Political Economy, (October 2016);

Ambassador (R) Fauzia Nasreen, The new Great Game in Central Asia: Challenges and Opportunities for Pakistan, 2016;

Andrew Chi Lok YUEN CHUK, China’s Belt-Road Initiative, Business School

Briefing on China’s “One Belt, One Road” Initiative - New Silk Road Initiative for Inter-Continental Growth, Law Express, (August 2015);

China’s One Belt, One Road: Challenges and Opportunities, Clifford Chance

Francisco Gómez Martos, China’s “One Belt, One Road Initiative”: challenges and requirements for its successful implementation in Central Asia, 2017, Brussel, Belgium;

Lain, S., & Pantucci, R. (2015, November). The Economics of the Silk Road Economic Belt. Workshop Report, London: Royal United Services Institute for Defence and Security Studies;

Liu Haiquan The Security Challenges of the "One Belt, One Road" Initiative and China's Choices;

Hongzhou, Z. (2015, May). Building the Silk Road Economic Belt, problems and priorities in Central Asia. Policy Report. Singapore: Rajaratnam School of International Studies;

M. Královičová, M. Žatko, One belt one road initiative in Central Asia: implications for competitiveness of Russian economy, August 2016;

Patrick Bessler, China's "new Silk Road": Focus on Central Asia, EU-ASIA Economic Governance Forum, Berlin;

National Development and Reform Commission, Ministry of Foreign Affairs, and Ministry of Commerce of the People's Republic of China. (2015). Vision and Actions on Jointly Building Silk Road Economic Belt and 21st-Century Maritime Silk Road. Retrieved from http://en.ndrc.gov.cn/newsrelease/201503/t20150330_669367.html

One Belt One Road Project - Prospects for the CIS (informational and analytical note), Moscow 2016;

Peter Cai, Understanding China's Belt and Road Initiative, Law Institute for International Policy, March 2017;

Peter Wolff, China's 'Belt and Road' Initiative – Challenges and Opportunities, German Development Institute / Deutsches Institut für Entwicklungspolitik (DIE);

Prospects and challenges on China's 'one belt, one road': a risk assessment report, From the Economist Intelligence Unit;

Raymond Mah, "One Belt, One Road: Impact and Opportunities for Asia & Europe", MahWengKwai and Associates, August 2016;

S. Frederick Starr, Svante E. Cornell, Nicklas Norling, The EU, Central Asia, and the Development of Continental Transport and Trade, Silk Road Paper (December 2015);

Simeon Djankov and Sean Miner, China's Belt and Road Initiative Motives, Scope, and Challenges, Person Institute for International Economics, March 2016

Tajikistan, Central Asia, and One Belt One Road strategy Thomas Chan, China Business Centre, The Hong Kong Polytechnic University, (October 2015);

Thomas Zimmerman, The New Silk Roads: China, the U.S., and the Future of Central Asia, Center on International Cooperation, October 2015;

Troy Sternberg, Ariell Ahearn, and Fiona McConnell, Central Asian 'Characteristics' on China's New Silk Road: The Role of Landscape and the Politics of Infrastructure;

Vassiliy V.Korolyov, Project OBOR (One Belt One Road) as a historic challenge for Central

A literature review on auditor independence

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Key words
Auditor Independence, Competition, Credibility, Literature Review

Abstract

Purpose: The purpose of the current research is to review literature related to auditor independence. More specifically, this review will examine whether the size of the audit firm, the size audit fees, the auditor's duration with the client, competition among other firms and the availability of non-audit services will compromise auditor independence.

Design/methodology: This paper reviews empirical studies to assess what researchers have done about auditor independence related issues and identify gaps in the literature where further research is needed.

Findings: The top determinant of auditor independence was not clear; however, other researches ranked them based off importance because of their hypothesis that they chose to test. It is evident that independence remains a going concern when discovering how reliable and credible financial statements are to investors.

Practical implications: This study highlights the importance of auditor independence attributes and this research is expected to serve as a guide in understanding the importance of auditor independence and the challenges auditors face.

Originality: This paper provides valuable insights for researchers and practitioners of auditor independence attributes.

1. Introduction

Independence is a major concern in the auditing profession. Corporate scandals like Enron failure confirmed the importance of credulity of audits. Audit independence refers to the ability of the external auditor to act with integrity and impartiality during his/her auditing functions (Akpom and Dimkpah, 2013). *Recent challenges* of the *audit independence assumption have* impelled the accounting *profession* to consider *ways of improving* the *credibility* of *audit* reports (Shockley, 1981, p.785). As a result, the accounting profession has considered new ways to improve the credibility of audits. It is constantly facing pressure from the media, stakeholders and investors to minimize.

According to Shockley (1981, p.785), "the value of auditing services depends upon the fundamental assumption that certified public accountants are independent of their clients". What is auditor independence? It can be described as having an unbiased viewpoint while performing audit test, analyzing the results and confirming the audit report. Auditor independence increases "the effectiveness of the audit by ensuring that the auditor plans and carries out the audit objectively" (Chepkorir, 2013, p.2). Researchers argue auditing has three different functions: monitor the actions of managers, enhance the information environment and provide a source of insurance against corporate failures (Fernando, Abdel-Meguid, and Elder, 2010). Corporate collapses such as Enron and WorldCom contributed to the impairment of auditor independence. It is believed that once auditors fail to report or identify incorrect information on financial statements, it can challenge the value of the audit and possibly damage the reputation of the firm (Fearnley, Beattie and Brandt, 2005). This review will examine whether the size of the audit firm, the size audit fees, the auditor's duration with the client, competition among other firms and the availability of non-audit services will compromise auditor independence.

During major accounting scandals, auditors received criticism for increasing their non-audit services. During the Enron and other accounting scandals, in which auditors were often suspected of complicity, auditors and clients were criticized for, among other things, substantial increases in nonaudit services (NAS), including tax services provided by external auditors (Lassila et al, 2010, p. 79).

In the aftermath of a downward economy, the public's concern for auditor independence became heightened as companies wanted to ensure a company's adherence to professional accounting standards and principles (Austin and Herath, 2014, p.63). Auditors were not allowed to provide certain types of non-audit services to their clients after the Sarbanes-Oxley Act (SOX) was passed (Gul et al, 2007, p.122). Revised rules were published by the Securities Exchange and Commission to address the circumstances for non-audit services. Audit firms must now create separate categories that discloses all the fees that were paid to the firm so that investors are aware about the types of fees (Gul et al, 2007, p.120). The relationship between auditor tenure and auditor independence is another aspect that the poplar literature examines. Tenure is the length of time it takes to complete an audit. Section 203 of the SOX explains how the reviewing audit partner or external lead must complete a five-year cycle rotation (Gul et al, 2007, p.119). Research evidence shows that higher quality earnings are associated with longer audit tenure than shorter audit tenure. Further, research suggests that auditors and client firms have a stronger economic bound once auditors have been employed for a long period of time which leads to personal connections and familiarity. Gul et al (2007) conclude that non-audit fees are likely to affect auditor independence for firms with shorter auditor tenure, but not for firms with longer audit tenure.

2. Auditor independence framework

The Independent Standards Board (ISB) established a framework for Auditor Independence due to the lack of inconsistent rules and regulations. The framework contains various principles and concepts to help assist the board with writing the standards. This framework defines auditor independence as "freedom from the factors that compromise, or can reasonably be expected to compromise, an auditor's ability to make unbiased audit decisions" (McGrath et al 2001). Standards are based on a model that involves three key steps: identify threats to the auditor's independence and analyze their significance, evaluate the effectiveness of potential safeguards and determine an acceptable level of independence risk. According to researchers, "the definition of independence does not require the auditor to be completely free of all the factors that affect the ability to make an unbiased audit decision, but only free from those that rise to the level of compromising that ability" (McGrath et al 2001). The overall goal with independence is to ensure financial reports are reliable and improve capital markets efficiency.

The role of appearance continues to remain a controversial topic in auditor independence. Challenges are faced when individuals uncover the meaning of "appearance" as well as selecting the right perceptions. Previous writings establish an auditor to consider whether an investor can determine how an audit will be affected based on the relationship between the auditor and the client. Researchers found difficulties when determining how to assess appearance because there was a "probable" lack of consensus about the circumstances likely to affect auditor's independence" (McGrath et al 2001). Although the debate over "appearance" fail to cease, there are three ways it can be incorporated in the standards if the auditors goal is to enhance credibility and reliability for financial statements. The methods include creating independence standards based of requested views from different parties, obtain information from a hypothetical group and develop standards based on the board's judgment.

3. The importance of auditor independence

Independence is an essential attribute for audits because it determines how credible and reliable financial statements will be to investors. Independence has been the focus of almost constant controversy, debate and analysis (Law, 2008, p.917). After corporate failures and scandals, regulators began to question how independent and competent auditors were during engagements (Bakar et al, 2005, p.805). According to Fearnley, Beattie and Brandt (2005, p.40), "the restatement of the Enron accounts and the collapse of Anderson…shows the devastating effect of loss of confidence in the integrity of an audit firm." The media remains critical of the auditing profession. Actual and perceived independence are the two types of auditor independence. The perceptions of the auditor independence will determine the future of the auditing profession (Fearnley et al, 2005, 41).

4. Factors that affect auditor independence

There are many factors that affect auditor's independence; however, in this study, factors such as the audit firm size, the firm's tenure, the level of competition in the market, the size of the audit fee, the audit committee and provisions for non-audit services will be discussed.

4.1. The level of competition in the market

Competitive markets make it more difficult for firms to remain independent solely because clients can choose from a handful of other auditors to conduct their service. Other incentives or opportunities are available as the number of audit clients rises. Studies have shown that audit firms remain less independent when competition is high. According to Shockley (1981), if an audit firm allows competition to affect the nature of its audit dangerously close to nonindependence." However, some argue, auditors are more independent once they realize the competition level so they do not jeopardize their clientele (Chepkorir, 2013). The Cohen Commission expressed their concern about too much competition in the accounting profession. "It is not the lack of competition that, however, but possible excessive competition that appears to present a problem to the public accounting profession today" (Shockley, 1981, p.787). In response to the increase in pressures from competition, audit firms began to change their behavior by reducing audit fees in real terms and "there were prima facie cases of low balling, where incoming auditors were believed to have secured their appointment by offering significant fee reductions" (Beattie and Fearnley, 1998). Houghton and Jubb (2003) offer a solution to create a "market-observable audit independence quality control process" as a result of market competition. In the proposed models they focused on having regular reviews on independence and ensuring that individuals selected on the Independence Control Board for firms who have audit engagements that are traded publicly are knowledgeable and free from receiving any benefits from decisions made from the Board. (Houghton and Jubb, 2003, p. 213.)

4.2. Audit firm size

The audit firm size is another factor that impacts auditor independence. What distinguishes a large audit firm from a small audit firm? There are many differences between the two firms which include the amount of responsibility, the number and reputation of the clients and the caliber of employees. Larger audit firms are more likely to provide a better-quality audit due to better research facilities, technology, financial resources, and skilled labor because they can conduct audits from bigger firms. Pressures from management will affect smaller firms while larger firms are able to resist since they have different variations for client exposure. Since larger firms receives more publicity from the media, smaller firms are less noticeable by shareholders, "implying less information and weaker monitoring" (Fernando, Abdel-Meguid, and Elder, 2010, p.367). A study was conducted where researchers studied the impact of auditor firm size. It was comprised of larger firms such as the Big 4 and national and local firms. Everything was measured using the "collateral bond" by DeAngelo (Saat et al, 2013). The results of the study showed that, although the relationship between audit firm size and independence is unclear and insignificant, audit's firm size can moderate the relationship of moral reasoning and independence (Saat et al. 2013, p.244). In addition, there was a difference in the way large and small firms chose to document their disclosures in financial statements. For instance, national firms would leave comments for any adjustments that were made on the disclosure while local firms preferred a footnote.

4.3 Audit tenure

An audit firm's tenure can be defined as the length of time an auditor performs services for a client. Risk associated with the loss of independence are increased once client relationships are maintained for a long period of time. On the other hand, other individuals believe having a lasting and faithful relationship will augment independence. For example, "long tenure is beneficial as auditors gain expertise in the field that they audit and may reduce the auditor's ability to detect irregularities or material misstatements" (UKEssays). The SEC released a regulation stating that partners should not remain with a client for no more than five years. Shockley (1981, p.789) explained how "complacency, lack of innovation, less rigorous audit procedures and a learned confidence in the client may arise after long association with the client." A recommendation to rotate auditors was advised by the Metclaf subcommittee to avoid this issue (Shockley, 1981). Academic research has proven that there are more unsuccessful audits in the beginning of auditor-client relationships in addition to lower earnings with audits who have shorter time frames. Apparently, investors reward long auditor-client relationships with lower cost of debt (Mansi et al, 2004).

4.4. Size of audit fee and non-audit services

Many concerns are centered around auditors providing Non-Audit Services (NAS) because they are likely to risk their independence in return for more NAS earnings. It is assumed that auditors may try to sacrifice their independence in exchange for retaining the audit clients from which they might accrue large NASs revenues (Law 2008; DeFond, Raghunandan, and Subramanyam, 2002). Examples of non-auditing services include appraisal services, actuarial services, bookkeeping, internal audit services, various modes of management consulting, financial information design services, taxation services and legal advice (Austin and Herath, 2014). Studies have shown that NASs has impacted auditor independence negatively. Rules have been established by the Sarbanes-Oxley Act to limit the services auditors can provide for client. In addition, the SEC required firms that were traded publicly to reveal the amount of fees paid to auditors in their annual proxy statements as they were investigating the relationship between non-audit services and auditor independence (SEC, 2000). On the contrary, a few researchers discussed how utilizing NASs can help increase knowledge about the client.

Audit Fee can be defined as the amount charged to a client to conduct specific services by the accountant. The fee may vary by size or based off the type of service provided but there have been many questions from researchers whether it affects audit quality. "The amount of audit fee can vary depending on the assignment risk, the service complexity, the level of expertise required, the cost structure of Public Accountant Firm and other professional considerations" (Rahmina and Agoes, 2014, p.326). "Large diversified with extensive receivables and inventories, pay higher fees" (Turpen, 1995). Studies have shown that larger firms tend to charge higher fees because of the idea that they may provide better quality for audits. Audit quality is challenging to measure and explain due to the lack of concept detail. According to Rahmina and Agoes (2014), there are nine elements firms should implement to meet quality control expectations. They include: independence, assignment of personnel, consultation, supervision, employment, professional development, promotion, acceptance and sustainable clients and inspection.

5. Conclusion

In conclusion, auditor independence remains an important element when individuals are conducting an audit. Auditor independence ensures an unbiased perspective and allows financial statements to be more reliable. Firms face the risk of damaging their reputation once auditors fail to report mistakes in their audits. Independence became an issue after corporate scandals such as Enron. Also, the International Standards board began to establish different frameworks to help provide rules and standards for auditor independence. However, the meaning of "appearance" continues to remain a challenge for researchers. The question of whether investors can truly understand the relationship between the client and auditor to determine how the audit will be affected is still unanswered.

In this literature review, we examined several determinants that influence auditor independence. The first factor that we examined was the level of competition in the market. As the competition rises, it is easier for clients to find other auditors to conduct their services. On the other hand, some auditors choose to remain loyal to their clients because they do not want to lose their clientele. The excessive competition changes the behavior of firms. The second, factor audit firm size, distinguished the difference between a large firm (Big 4) and a small firm. For example, individuals should take into consideration the number of employees or how large are their clients. According to research, large firms have more access to resources to produce a quality audit and media attention. Smaller firms face pressures within their working environment due minimum client exposure.

Tenure was another concern that influenced auditor independence. Before the Sarbanes-Oxley Act was passed to require auditors to rotate clients every five years, auditors would stay with clients for long periods of time. As a result, questions began to arise about the connection and closeness of their relationship and what affect it would have on the audit. However, some believe auditors become experts in their field once they are very familiar with their client. Research has proven that higher earnings and a decrease in debt are directly associated with firms that have longer relationships with clients. Non-audit services have a risk of impacting auditor independence because individuals are willing to compromise their independence to gain more income for other services. An example of a non-audit service would be consulting. A firm cannot audit and consult a company at the same time because of a conflict in interest. Rules and regulations have been established to limit the amount of non-audit services. Audit fee size varies based off the diversity of the company, the size of the firm and so on. Drawing inferences about audit fees can be challenging because firms have different practices and limited access to data about costs and rates.

In conclusion, the top determinant of auditor independence was not clear; however, other researches ranked them based off importance because of their hypothesis that they chose to test. It is evident that independence remains a going concern when discovering how reliable and credible financial statements are to investors.

References

US Securities Exchang Commission, Audit Committees and Auditor Independence, https://www.sec.gov/info/accountants/audit042707.htm

Akpom, U. N., and Dimkpah, Y. O. (2013) Determinants of auditor independence: a comparison of the perceptions of auditors and non-auditors in Lagos, Nigeria. Journal of Finance & Accountancy. http://www.aabri.com/manuscripts/131506.pdf (Accessed: 28 February 2018).

Austin, E. and Herath, S.K. (2014) 'Auditor independence: a review of literature', International Journal of Economics and Accounting, 5(1), pp.62–74.

Beattie, V. Fearnley.S., (1998) 'Audit Market Competition: Auditor Changes and the Impact of Tendering.' The British Accounting Review, pp. 261–289.

eprints.gla.ac.uk/786/1/BrAccRev30(3)261-289.pdf.

Chepkorir, Carren. "Factors Influencing Auditors Independence and Accountability." Academia, Sept. 2013,

www.academia.edu/7921849/Factors_Influencing_Auditor_S_Independence_And_Accountability. (Accessed: 28 February 2018).

DeFond, M. L., K. Raghunandan, and K. R. Subramanyam. (2002) 'Do non-audit service fees impair auditor independence? Evidence from going concern audit opinions', Journal of Accounting Research, 40(4), pp.1247-1274.

Fernando, G, Abdel-Meguid, and Randal Elder (2010) 'Audit Quality Attributes, Client Size and Cost of Equity Capital', Review of Accounting and Finance, 9(4), pp.362-381.

Fearnley, S. and Beattie, V. and Brandt, R. (2005) 'Auditor independence and audit risk: a reconceptualisation'. Journal of International Accounting Research 4(1), pp. 39-71.
Gul, F.A., Jaggi, B.L. and G. V. Krishnan (*2007*) 'Auditor Independence: Evidence on the Joint Effects of Auditor Tenure and Nonaudit Fees', AUDITING: A Journal of Practice & Theory, 26(2,) pp. 117-142.
Lassila, D.T., et al. (2010) Do Complexity, Governance, and Auditor Independence Influence whether Firms Retain Their Auditors for Tax Services?. The Journal of the American Taxation Association,3(1), pp. 1-23.
Law, P., (2008) 'An empirical comparison of non-Big 4 and Big 4 auditors' perceptions of auditor independence', Managerial Auditing Journal, 23(9), pp.917-934.
Mcgrath, S., et al (2001) 'A Framework for Auditor Independence,' Journal of Accountancy, www.journalofaccountancy.com/issues/2001/jan/aframeworkforauditorindependence.html.
Mansi, S., W. Maxwell, and D. Miller. 2004. 'Does auditor quality and tenure matter to investors: Evidence from the bond market'. Journal of Accounting Research 42(4), pp.755-793.
Rahmina,L,Y and Agoes, S. (2014) 'Influence of auditor independence, audit tenure, and audit fee on audit quality of members of capital market accountant forum in Indonesia', International Conference on Accounting Studies ICAS 2014, 18-19 August 2014, Kuala Lumpur, Malaysia Procedia - Social and Behavioral Sciences 164, pp.324 – 331. (Accessed: 28 February 2018).
Shockley, A.R. (1981) 'Perceptions of Auditor Independence: An Empirical Analysis.' The Accounting Review, 56(4) pp. 785–800.
Turpen, Richard. "Audit Fees: What Research Tell Us." The CPA Journal (1995),
http://archives.cpajournal.com/old/16349305.htm, (Accessed: 28 February 2018).
UKEssays, 'The Factors Affecting Auditor Independence Accounting Essay.'. N.p., 23 Mar. 2015.
Web. https://www.ukessays.com/essays/accounting/the-factors-affecting-auditor-independence-accounting-essay.php

Loan loss reserves as a test of solidarity in cooperatives

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Keywords
Cooperatives; Microfinance; Poverty alleviation; Sustainability; Focus Group Discussion

Abstract

The cooperative structure traces its origin to Europe and is in existence for more than one and a half centuries. The structure rapidly expanded across the globe and encompassed all possible activities where there was a need for collective action. The collective need for banking resulted in the formation of financial co-operatives. These are usually non-profit and provide financial services to the members who come together for some common financial need. Due to the exclusion of certain section of the society from the mainstream banking, they became an important structure for addressing financial inclusion and poverty alleviation. Though the cooperative structure offers lot of advantages over other institutional forms, the key to success of cooperative lies in participation and solidarity.

This paper deals with a part of the experimental project of a microfinance institution in India that targeted income generating poor above the subsistence level. The main focus of the project was to test the feasibility of cooperative structure in the target segment and for this a special tool was determined to measure the feasibility. This was called the Loan Loss Reserve. This paper presents the result of a Focus Group Discussion conducted online in 2012 involving experts from the field of microfinance.

The findings are quite significant for practitioners as well as researchers because loan loss reserves may test the sustainability of the cooperative structure for meeting the financial needs of this segment of poor population.

Impact of working capital management on the performance of manufacturing sector of Pakistan

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Keywords
Working capital, Inventory turnover in days, Average collection/payment period, Cash conversion cycle, Gross operating profitability

Abstract

Purpose: The main objective of the study is to examine the effective management over components of working capital through their impact on firm profitability in the manufacturing sector.

Design/Methodology: Data is collected from the annual reports of 94 Pakistani non-financial firms listed on Pakistan Stock Exchange (PXS) for the period of 2011- 2016. Fixed effects models are used and additionally tests for multicollinearity and autocorrelation are performed to establish validity of the results.

Findings: Inventory turnover, average collection period and cash conversion cycle have an insignificant relationship with profitability, indicating that working capital management (WCM) is not important in the manufacturing sector. It appears levels of current assets are maintained to support current ratio and solvency to sustain the high levels of debt financing. However, average payment period has a negatively significant association with profitability demonstrating that firms may be managing working capital through payables, where reduction in payables increase profitability through better trade and cash discounts and timely supplies. Therefore, management focuses on the liabilities side of the WCM equation and maintains current assets for other purposes.

Practical implication: The results provide insights into manufacturing sector practice of maintaining levels of current assets as cushion against financial and operational risks, and their managing of working capital requirements through payables. It provides banks and other financial institutions a perspective into the working capital behaviour of the manufacturing sector.

Originality statement: The paper provides innovative insights into the manufacturing sector practice of focusing on the current liabilities to manage working capital and maintaining levels of current assets as cushion against risk and to support borrowings. It suggests that in this sector, the conventional working capital practices are not applied.

Perspective of financing through Carbon Bonds in Mexico

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Keywords
Financing, Strategic Planning, Carbon Bonds, Green Businesses.

Abstract

In the present work, an analysis of the financial aspects of the Carbon Bonds and their operation in Mexico was carried out. The scope is descriptive and the purpose of this research is the exploration of the theoretical and literary aspects of Carbon Bonds. The situation of the factors that Porter calls "Porter's Diamond" is analyzed; including the (F1) bargaining power of the buyers or clients, the (F2) negotiation power of suppliers (demand); the (F3) government, the (F4) threat of substitute products, the (F5) structure, strategy and rivalry of the Carbon Bonds goblins. Through this analysis, the goal was to report the current situation from the perspective of the Carbon Bonds power forces.

In Mexico, the application of Carbon Bonds is incipient, and to comply with the 2030 Agenda, it is necessary to use efficiently this instrument or similar ones. This implies readjusting or reconditioning efficiently the companies that have a real business in the current context of the legislation and in the 2030 agenda that Mexico has formalized, and must comply with the care of the environment.

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The effect of internal and external factors on stock market prices - evidence from Saudi Arabia

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Keywords
dividends, Stock Price, Oil Prices, Stock Market, Inflation

Abstract

This study investigates the impact of dividend as an internal factor, and oil prices as external factor on the market prices of equity in oil producing economies. The data sample for this study is drawn from 40 firms listed on the Saudi Stock Exchange during the period 2011 to 2015. The study employed the panel data regression model to analyze the data and to investigate the possible linkages among the variables identified. A dummy variable is used to capture the sectoral effect on the market price of equity. The result of the investigation provides empirical evidence supporting the view that dividend is relevant in explaining the market price of equity, especially listed firms on the Saudi Stock Exchange. The findings revealed a week significant positive impact of oil prices, and the sector to which a firm belong may play a role in determining the price of a firm's equity.

Introduction

The core purpose of this paper is to investigate the possible impact of certain factors (firm specific factors and general factors) on the market price of equity. Firm specific factors are those linked to the firm's performance. While general factors, are those linked to the macroeconomic conditions as a whole.

In the light of a thorough review of the literature related to the factors affecting the price of equity shares, it can be argued that both macro and micro economic factors play role in determining the price of equity in the stock markets. Another classification of these factors could be internal and external. The internal factors are those represent the firm's performance or the microeconomic factors. While external factors generally include variables that represent the country's economic performance or the macroeconomic factors.

The impact of these factors may differ from country to country, industry to industry, and firm to firm. Corwin (2003) argues that most of the factors affecting the market price of equity appear to have the same behavior regardless of firm, industry or time constraints. For example, increased inflation, declining dividends and earnings, and poor management leave negative impact on market price of equity.

Al Masum (2014) states that in the past two decades many economies in the world experienced volatility (booms and depression); one of the major impacts of such volatility is the volatility in the stock market prices. Even the most successful corporations were not saved off these volatilities in spite of their proven records of excellent performance in terms of both profit (cash) generation and dividends pay-outs. He argues, that it is not wise to study the impact of company specific factors while the economic history provide sufficient evidence that stock market prices are affected by both internal as well as external factors. The significance and magnitude of these factors may differ from time to time and the level of severity of each type.

Considering the firm specific (internal) factors, most researchers suggest that the price of equity is mostly affected by the variables of dividend policy, retention ratio, profit after tax, earnings per share, and return on equity (Majanga, 2015). Dividend policy (which determines how much of the profit to pay out as dividends, and how much to retain) is one of the most widely researched topics but the question is whether dividend policy affects stock prices still remain debatable. There are two different views regarding the dividend policy and stock price. Those who think dividends have more impact in determining share price, argues that shareholder prefers current return rather than future return and dividend distribution is an indicator of earning capacity in future. The other views are based on the importance of retained earnings. They argue that retained earnings are indicator of future investment opportunities. The shareholders can enjoy tax advantages in retained earnings. For tax purpose, retained amount is not treated as income until it is realized.

On the Macro level a large number of studies tried to explore the impact and relationship of a number of macroeconomic indicators on the stock market returns. Among these indicators are GDP, Inflation, Interest rate and the oil prices. Again, the results and conclusions of these studies are inconclusive. Recently a stream of literature emerged focusing on the impact of oil prices and volatilities on the stock market prices. According to this stream of literature, oil price is one of the most important indicators of the economy; therefore it is expected to influence the general performance of the economy including the stock market's performance. In this regard, Bayramoğlu and Hamzacebi (2010) argue that when we look at the literature, we can easily see that a small change in oil prices has either a negative or a positive effect on economy; therefore, oil prices must be considered when financial decisions are made. Effects of oil prices on economy differ whether the country is an oil-producer or an-oil consumer country (Akgun 2006: 83).

The present study attempts to investigate the impact of three variables on the market price of equity for firms listed in the Saudi Arabia Stock Exchange. Divided will be examined as a company specific factor while oil price will be examined as an external factor related to the country's economy as a whole. The inflation rate will be introduced in the model as a control variable. The remaining part of the study has been structured as follows: Section 2 discusses the related literature while section 3 highlights the data collection and methodology and Section 4 devotes itself to the analysis and findings. Section 5 concludes the paper.

Literature review

This section will briefly demonstrate the literature related to dividend and oil price impact on stock market prices.

Dividend literature

The determinants of share price was initiated by Collins (1957) for the US market and he identified dividend, net profit, operating earnings and book value as the prominent factors affecting share prices in the US. Ever since, a significant body of theoretical and empirical literature has evolved that considers the determinants of market price of shares.

Dividend is the result of a discretionary decision made by the board of directors of a firm. Generally, a firm announces dividend on the profit. Corporate dividend policy is one of the most enduring issues in modern corporate finance. Dividend policy determines the division of earnings between payments to stockholders and reinvestment in the firm (Weston, Copeland & Shatri: 2004). The issue of whether or not dividend policy has relevance with share price volatility has been a topic of intense debate for many years. Many academic works have provided evidence that both support and reject the idea that dividends reduce stock price volatility. Some argue that dividends signal to investors that the company is operating effectively, while others argue that when all other variables are fixed, the payout of dividends does not effectively reduce the stocks volatility (Profilet and Bacon, 2013).

The most well-known study on dividend irrelevance was by Miller and Modigliani (1961; "MM"). This study has become a benchmark to other researchers in developing various models pertaining to dividend behavior of firm values and the policies that guided the managers in setting up company payout policies. MM documented that firm value is independent from dividend policy. They argued that dividends have no overall effect on its stock returns because price appreciation has a compensating effect on the dividend distribution. Therefore, the value of the firm is based on its basic earning power and its business risk, not how it distributes earnings to shareholders. In reality investors will be paying high taxes on dividend instead of capital gains. The investors will be taxable once their shares are sold. A company that pays no dividends will be more attractive to investors than a company that gives dividends payment (Black, 1976). Thus, stock price for non-dividend paying company tend to increase. For this reason, most of companies will be tempted to eliminate dividend payments.

Since the introduction of MM theory, many studies have emerged over the time such as Gordon (1962), Walter (1963), Friend and Puckett (1964); Black and Scholes (1974). Some studies supported MM's theory of dividend irrelevance whereas most of the studies opposed. In General, early studies of the dividend irrelevance theory seemed to confirm MM's research. For example, using data from the period before the seventies of the last century, studies such as Friend and Puckett (1964) and Black and Scholes (1974) were unable to find any significant relationship between dividend policy and total returns on a risk-adjusted basis.

On the other-side of the debate, Gorden (1963) introduced dividends relevance theory and argued that dividend has impact on market value and value of firm because investors prefer dividends on capital gain. Dividend payment could provide a signal to the investors that the company is complying with good corporate governance practices (Jo and Pan, 2009). Good corporate governance practices are valuable for a company as it implies the company's ability to raise funds from capital market with attractive terms ((Zakaria et al., 2012). Many of scholars who support the dividend relevancy argue that, if a company distributes cash dividends to the shareholders then positive results will be found because dividends has a signaling effect which tells about the financial condition of the firm and attracts the investors.

Recently, large number of studies emphasized the pivotal role played by dividend policy and dividend payment in the predication of stock market price (Joshi, 2012, Hashemijoo et al., 2012, Ather & Kawal, 2011, Nishat & Irfan, 2003). Dividend policy is considered an important tool for investors to assess the company's financial position as they require return on their investment and dividend paying company will certainly attract them (Ansar et al., 2015). Asquith & Mullins (1983), and Pandy, 2005, posits that the value and the performance of a firm is a function of the dividend policy and other variables like the way the firm is being financed. Therefore, firm's dividend policy is expected to have a significant positive impact on its stockholders' wealth.

As investors always look out for return on their investments, most stockholders are interested most in the dividends they get from the firm's profits (Barfield 1995). Therefore, the reaction of stockholders to the announcements and expectations of dividend plays a vital role in influencing the stock price (Bitok, et al., 2011). A number of scholars who believe in wealth creation, such as, Bainbridge (1993); Jensen (2001); Brigham & Ehrhardt (2002); Brealey & Myers (2003), and Moyer et al. (2003) argue that shareholder wealth is maximized when the company gives out a regular dividend to shareholders and when the stock price appreciates the stock market so that the investor makes some capital gains.

Oil price literature

Oil price is one of the most important economic factors influencing the world's economy. A small change in oil prices has positive or negative effects on all the economic factors (Toraman et, al., 2011). In recent years, a large body of literature has focused on the links between oil prices and macroeconomic variables. It has confirmed that oil price fluctuations have significant effects on economic activity in many developed and emerging economies [Cunado and Perez de Garcia (2005), Balaz and Londarev (2006), Gronwald (2008), Cologni and Manera (2008) and Kilian (2008)]. Oil price fluctuations are normally regarded as an exogenous shock in the economy of each country (Hamilton, 2003 and Kilian, 2008) and it has been stated that its effect on total production is significant (Mork, 1994). Recognizing the vital role of oil in the modern economy, many studies were directed to focus on the effect of oil price shocks on macro-economic indicators that may directly affect GDP, such as trade cycles, inflation, and foreign exchange rate.

Most previous studies have explored the effects of oil price shocks on economies of industrial countries that often import oil but few of them have focused on economic effects of oil price shocks on developing countries that export oil. In developed countries, oil is considered one of the production factors and increasing its price will have inflationary and recessional effects, and decreasing its price is considered as the positive shock of the supply side. This is while not the same in developing countries that export oil.

Despite the large body of research examining the effect of oil price volatilities on GDP, there has been relatively little work done on the relationship between oil price variations and stock markets. The most known works in this field remain those of Jones and Kaul (1996), Sadorsky (1999), Huang et al. (1996), El-Sharif et al. (2005), Naifar and Al Dohaiman (2013), Mohanty, et al. (2011), Nguyen and Bhatti (2012), Shimon and Raphael (2006). And the bulk of what little work has been done has focused on stock markets in developed countries. Very few studies have looked at the stock markets in emerging economies.

Oil price returns and its volatility has a major impact on the economic activity and hence on present and future stock market returns. Previous studies document that oil price increases and volatility lead to rising inflation and unemployment and therefore depress macroeconomic growth and financial assets (Shimon and Raphael, 2006). In theory, there are several channels through which oil prices may affect stock market prices. The most invoked rational of using oil price changes as a factor affecting stock market returns is that value of stock equals discounted sum of expected future cash-flows. These cash-flows are affected by macroeconomic events that possibly can be influenced by oil shocks. Thus, oil price fluctuations may influence stock market returns (Arouri et al., 2010). Moreover, if oil price affects GDP, it will affect the earnings of companies for which oil is a direct or indirect operational cost. Thus, an increase in oil prices will possibly cause expected earnings to decline, and this will bring about an immediate decrease in stock prices if the stock market efficiently capitalizes the cash flow implications of the oil price increase (Lake and Katrakilidis, 2009).

The impact of oil prices on stock market returns depends on whether the country under consideration is an oil producing or oil consuming economy. Studies particularly focused on stock markets of oil producing countries reveal that positive oil price changes tend to negatively affect stock returns. The seminal paper by Jones and Kaul (1996) was among the first to reveal a negative relationship between the oil prices and stock market returns. In addition, Sadorsky (1999) concludes that oil price changes are important determinants of stock market returns. In particular, he shows that stock markets respond negatively to a positive oil price change. A number of studies such as Filis (2010), Chen (2009), Miller and Ratti (2009), Park and Ratti (2008), Driesprong et al. (2008) and Gjerde and Sættem (1999) confirmed the findings of Sadorsky (1999) and Jones and Kaul (1996).

Furthermore, studies that examined the effect of oil price change on different sectors found that the exact relationship between oil price and stock market returns depends on the nature of those sectors. In particular, oil-related stock market sectors tend to appreciate in the event of a positive oil price change, whereas the reverse holds for oil-intensive sectors (see, for example, Arouri and Nguyen, 2010; Arouri, 2011). On the other hand the negative relationship does not hold for stock markets operating in oil-exporting countries. Arouri and Rault (2011) show that for the oil-exporting countries, there is a positive relationship between oil price shocks and stock market returns.

Related studies

Ehikioya (2015) investigated the impact of dividend policy on the value and performance of firms in developing economies. The data sample was drawn from 81 firms listed on the Nigeria Stock Exchange during the period 2001 to 2010. The study employed the panel data regression model to analyze the data and to investigate the possible link among the variables identified. The result of the investigation provides empirical evidence to support the view that dividend policy is relevant in explaining the value and performance of firms in developing economies. The finding confirms the proposition that dividend policy is an important determinant of firm performance. The study suggests policies that may help to improve the value and performance of the firm while contributing to shareholders' wealth maximization.

In a study conducted in the Bahrain Stock Market, Sharif et al. (2015) found that the stock prices are significantly determined by a number of internal variables like return on equity, firm size, book value, dividend yield, and dividend per share. The most significant and key factor among these was dividends given to stockholders. It was evident that dividend could not be ruled out in establishing the determinants of stock prices. This finding was in line with Masum (2014), which indicated that the dividend policy of a company will definitely have a positive impact on the prices of its shares.

Khan et al. (2014) examined the possible impact of macroeconomic variables like fiscal policies and monetary policies (interest rate) and inflation rates on stock market performance in Pakistan. The paper found that macroeconomic variables significantly affect the stock market index in Pakistan. Specifically, interest rate and government revenue have significant negative relationship with stock market index, whereas the inflation rate and government expenditures have significant positive relationship.

Reboredo and Rivera-Castro (2014) examine the connection between oil price and stock market returns using daily data that consists of the aggregate S&P 500 and Dow Jones Stoxx Europe 600 indexes and US and European industrial sectors (automobile and parts, banks, chemical, oil and gas, industrial goods, utilities, telecommunications, and technologies) over the period from 01 June 2000 to 29 July 2011. Based on wavelet multi-resolution analysis they found that oil price changes have no much effect on stock market returns in the pre-crisis period at either the aggregate as well as the sectoral level. With the onset of the financial crisis, their findings support the positive interdependence between oil price shocks and the stock returns at both the aggregate and the sectoral level.

Joshi (2012) conducted a study on both banking and non-banking sector in Nepal. In his study, secondary data was used to examine the impact of dividends on stock prices, and a multivariate linear regression analysis was implied in which current market stock price was taken as a dependent variable and four other variables namely Dividend Per Share (DPS), Retained Earnings Per Share (REPS), Lagged Price Earnings Ratio (P/E ratio) and Lagged Market Price Per Share (MPS) as the explanatory variables. The conclusion drawn in this study revealed that, the impact of dividends on the stock price is more pronounced than that of retained earnings.

Somoye, Akintoye, and Oseni (2009) conducted a survey on 130 companies traded in the Nigerian stock exchange between 2001 and 2007 in order to analyze the impact of various macroeconomic factors on the market price of shares. The study employed OLS regression and regressed stock prices on earnings per share, dividend per share, oil price, gross domestic product, lending interest rate and foreign exchange rate on stock price. All the variables revealed a positive correlation to stock prices with the exception of lending interest rate and foreign exchange rate. Similar findings were echoed by Zhao (1999) who studied the relationships among inflation, industrial output and stock prices in the Chinese economy for the period 1993 1998. Results revealed a negative relationship existing with both the variables studied on market price per share.

Al-Qenae et al. (2002) made a significant contribution to the topic by basing his research on the GCC market. He analyzed the impact of the effect of earnings and other macroeconomic variables on the stock prices of Kuwait Stock Exchange during the period 1981-1997. The macroeconomic variables examined were gross national product (GNP), interest rate, and inflation. The study found that earnings and GNP were positively related to stock prices, while inflation and interest rate showed a significant negative impact on the stock prices in Kuwait. The reason attributed for the effect in Kuwaiti shares is that the Kuwait share market is highly responsive to the sentiments of public and external events.

Sadorsky (1999) used monthly data to probe the relationship between oil prices and stock returns for the US from January 1947 to April 1996. The author applied an unrestricted VAR with GARCH effects and showed a significant relationship between oil price changes and aggregate stock returns in US. In particular, he showed that oil price shocks have asymmetric effects: positive oil shocks have a greater impact on stock returns and economy activity than do negative oil price shocks.

The pioneer paper of Jones and Kaul (1996) studied the response of international stock markets to changes in the oil prices using quarterly data. The study focused on stock returns from the US, Canada, the UK, and Japan, utilized simple regression models, and reported that the stock returns for all countries (except the UK) were negatively impacted by oil prices.

Data and methodology

The researcher obtained data from a sample of companies listed in the Saudi Stock Exchange (SSE) during the study period from 2011 to 2015. The companies are distributed among seven sectors (Telecommunication, Banking, Insurance, Power, Cement, Petrochemicals, and Construction). The sample selection is based on a number of criteria previously employed in similar studies such as Ehikioya (2015). For instance, in this study, we considered firms with records of dividend payment during the period under review. We also eliminated firms without records of financial and market activities sufficient to estimate data for the model specified to examine the link between dividend payments, oil price and inflation rate and performance of the firm measured by the market price of its shares. The final sample for this study consists of 40 firms listed on the SSE with information necessary and sufficient to investigate the impact of dividend payments, oil prices, and inflation rates on the performance of firms in developing and oil exporting economies, evidence from Saudi Arabia.

Different sources and techniques were used for the construction of the study data. As already mentioned, all companies considered in the sample have been active throughout the study period. The average annual share price was calculated by dividing the sum of daily closing prices by the number of trading days in each year. Dividends were taken from the annual financial statements of the companies understudy. The daily closing prices and the annual financial statements of companies are both available on SSE website (Tadawul). Inflation rates were taken from the Saudi Arabian Monetary Agency. Oil prices from Saudi Ministry of Finance. Average monthly oil prices were taken and used for the calculation of the annual average oil prices.

Table 1 below demonstrates the descriptive statistics of the variables.

Nos	Variable	Number of observations	Max	Min	Mean	Standard deviation
1	Average market price of shares	200	159.5	7.25	30.571	23.079
2	Dividend	200	97	0	13.786	18.581
3	Inflation rate	200	%4.1	%2.9	3.6	0.401
4	Average Oil prices	200	111.66	61.49	94.5	20.495

Table 1: Descriptive statistics of the study variables

To gain the maximum possible observations, the study adopts the panel data regression model structured on the Ordinary Least Squares (OLS) regression method to examine the impact of dividend and oil price on the performance of a sample of firms listed on the SSE. The constructed panel comprised of 40 companies with 5 years observations (2011-2015). Thus the total number of observations that will be examined is 200. The regression model that will be applied to examine the impact of independent variables on the dependent variable is expressed in the following equation:

$$lnavshpr = \alpha + \beta 1\, lnpsd_{it} + \beta yglnoil_{t} - \beta zlninf_{t} + \beta 4sec + \varepsilon_{it}$$

In the above equation, α represents the intercept, β the regression coefficients and *εit* is the error term. While *i* is the company observation and *t* is the year of observation. The dependent variable is the average market price of shares (avshpr). The study utilized the firm dividend payments per share (psd) and average annual oil price (oil) as independent variables. All variables both dependent and independent are expressed in the form natural logarithm (*ln*). The control variables that might also influence market price are the inflation rate (inf) which is also expressed in the form of natural logarithm, the sector (sec) to which the firm belongs measured as dummy variable taking the value of 1 if the firm belongs to a particular sector, 0 otherwise.

The specification of our model was fairly straightforward, as we wanted to measure the percentage change in stock prices as a result of the percentage change in our variables. Therefore, we used the natural log on both the left-hand side and right-hand side of the equation. It is likely that in our regression equation we have excluded some important variables that are known to have a significant impact on stock prices. GDP and earnings per share are among other variables that have been shown to have some impact on share prices, but there are several reasons why not to include all of these variables in our regression equation. The first problem is that many of these variables are significantly correlated with one another, resulting in the violation of Classical Assumption VI, which specifies that no explanatory variable is a perfect linear function of any other explanatory variables. While we would always expect some level of correlation between independent variables, multi-collinearity is a greater problem in a regression such as ours because of the time-series nature of the data to constantly increase over time.

4. Empirical results and analysis

Pooled OLS Regression:

Nos	Regression	1	2	3	4
1	Constant	2.665*** (0.058)	3.475*** (0.380)	1.197 (1.355)	0.922 (0.629)
2	Dividend	0.283*** (0.024)	0.275*** (0.024)	0.272*** (0.024)	0.272*** (0.024)
3	Inflation		-0.623** (0.289)	-0.095 (0.416)	
4	Oil price			0.357* (0.204)	0.390* (0.140)
5	F Statistics	136.87***	72.02***	49.54***	74.64***
6	R Square	0.4087	0.4224	0.4313	0.4311
7	Adjusted R Square	0.4057	0.4161	0.4226	0.4253

Dependent variable: Price share, * Significance at the 10 percent level, ** Significance at the 5 percent level, *** Significance at the 1 percent level, Standard errors reported in parenthesis.

Table 2: Regression analysis of the three independent variable

Dependent variable: Price share, * Significance at the 10 percent level, ** Significance at the 5 percent level, *** Significance at the 1 percent level, Standard errors reported in parenthesis.

To understand the behavior of the explanatory variables, four pooled OLS regressions were estimated. Table 2 presents the results of these four regressions. In the first regression only divided has been entered as an explanatory variable. Regression two demonstrates the effect of both dividend and inflation rate. In the third regression all the three independent variables were entered simultaneously, while the fourth regression shows the effect of dividend and oil price only. In all the four regressions, R^2 ranges between 40 - 43% with F-Stat significant in all the four regression at 1% level of significance.

Looking at the results demonstrated in table 2 it is very clear that in all the four regressions, dividend plays a significant role in determining the stock price. A 10 percent increase in dividend leads to approximately 2.7 percent rise in the price of stock in the Saudi stock market and this result is significant at 1% level of significance in all the four regressions. In the second regression it is obvious that the inflation plays a significant role in decreasing the stock price. A 10 percent increase in inflation rate makes the stock price fall by approximately 6 percent which is significant at 5 percent level of significance. But the significance of inflation role in determining the price of stock in the Saudi market disappears in the third regression when oil price is added as an explanatory variable in the regression showing that a 10 percent rise in the oil price, leads to a rise in stock prices by approximately 3.6 percent, but with a week significance level. The disappearing effect of inflation in the third regression maybe attributed to the multi-collinearity effect between inflation and oil prices.

Constant	1.225 (1.230)
Dividend	0.262*** (0.026)
Inflation	-0.105 (0.378)
Oil price	0.363* (0.185)
Cement Sector	0.156 (0.108)
Petrochemicals	-0.026 (0.108)
Banking	-0.015 (0.106)
Power	-0.557*** (0.149)
Telecommunications	0.160 (0.127)
Construction	-0.339*** (0.103)
Insurance	0.290** (0.123)
F Statistics	23.03***
R Square	0.5493
Adjusted R Square	0.5255

Dependent variable: Price share, * Significance at the 10 percent level, ** Significance at the 5 percent level, *** Significance at the 1 percent level, Standard errors reported in parenthesis.

Table 3: Regression analysis of the three independent variables along with sectors dummies

Dependent variable: Price share, * Significance at the 10 percent level, ** Significance at the 5 percent level, *** Significance at the 1 percent level, Standard errors reported in parenthesis.

Table 3 above demonstrates the results of running the regression for our full model as specified in the methodology section. The regression shows no significant changes in the results in terms of the magnitudes, signs or significance levels. The regression provides a deeper insight as to how the prices of shares in the Saudi Security Exchange responds differently as a result of changes in dividend, oil prices and inflation rates. Three out of the seven sectors listed in table 3 showed significant difference in behavior. In case the stock belongs to the Power or construction sectors, the price will be lower than the average market price of the total market and this result is significant at 1 percent level. On the hand if the stock belongs to the insurance sector the price will rise by 0.29% above the average market price.

5. Conclusion

This paper sought to detect the impact of firms' internal and external factors on the prices of stocks in the Saudi Security Market. Using panel data and the technique of pooled OLS regression over the period 2011-2015, the results of the regressions confirm that there is a significant effect of both internal and external factors. But, it is obvious that the effect of the internal factors is much more significant, though the magnitude of external factors is higher.

As per the results of the regression, a 10% increase in the dividend paid to shareholders in the Saudi Security Market results in a 2.7 percent rise in the average stock market price and this is significant at 1 percent level as the t- statistics indicates. Whereas if the price of oil rises by 10 percent the average price of stocks rises by 3.6 percent. But this result is only significant at the 10 percent level. Again, this result confirms the results of pervious research in oil producing countries which contradicts with those in oil importing countries.

Finally, the analysis revealed that the firm's divided policy as an internal factor, and the fluctuation of oil prices as an external factor, will not have the same effect on the prices of stocks in different sectors.

References

Akgun, Ali. 2006. Petrol Fiyatlarındaki Değişimlerin ISE-100 Endeksine Etkisi.Yüksek Lisans Tezi.,Selcuk Universitesi.

Al Masum, A. 2014. "Dividend policy and its impact on stock price – A study on commercial banks listed in dhaka stock exchange". *Global Disclosure of Economics and Business*, 3(1), 9-17.

Al-Qenae, R., Li, C., & Wearing, B. 2002. "The information content of earnings on stock prices: The Kuwait stock exchange". *Multinational Finance Journal, 6*(3&4), 197-221.

Ansar, I., Butt, A. A. and Shah, S.B. 2015. "Impact of dividend policy on shareholder's wealth". *International Review of Management and Business Research*, 4(1), 89-95.

Arouri, M.E.H. 2011. "Does crude oil move stock markets in Europe? A sectoral investigation". *Economic Modelling*, 28, 1716-1725.

Arouri, M.E.H. and Nguyen, D.K. 2010. "Oil prices, stock markets and portfolio investment: Evidence from sector analysis in Europe over the last decade" *Energy Policy*, 38(8), 4528-4539.

Arouri, M.E.H. and Rault, C. 2011. "On the influence of oil prices on stock markets: Evidence from panel analysis in GCC countries". *International Journal of Finance and Economics*, 17 (3), 242-253.

Arouri, M.E.H., Lahiani, A., and Bellalah, M. 2010. "Oil price shocks and stock market returns in oil-exporting countries: The case of GCC countries". *International Journal of Economics and Finance* Vol. 2, No. 5, pp. 132-139.

Asquith, P., and Mullins, D. 1983. "The impact of initiating dividend payments on shareholders' wealth. *Journal of Business,* 56, 77-96.)

Ather Azim Khan and Kawal Iqbal Khan. 2011. "Dividend policy and stock prices – A case of KSE-100 index companies".

Bainbridge, S. M. 1993. "In defence of shareholder wealth maximisation: A reply to Professor Green". *Washington and Lee Law Review,* 50(4), 1423-1447.

Balaz, P., Londarev, A. 2006. "Oil and its position in the process of globalization of the world economy". *Politicka Ekonomie* 54 (4), 508-528.

Barfield, R. 1995. "Shareholder value in practice". *The Treasurer Magazine*, January 1995.

Bayramoğlu, F. Mehmet. and Hamzacebi Coşkun. 2010. "Ham Petrol Fiyat Hareketlerinin Sınıflandırılmasında Yapay Zeka Teknolojilerinin Kullanımı.", *İleri Teknolojiler Calıştayı 2010 Bildiriler Kitabı, Kocaeli*, Nisan 303–317.

Bitok, J., Kiplangat, A., Tenai, J., & Rono., L. 2011. "Determinants of investor confidence for firms listed at the Nairobi stock exchange, Kenya". *Annual Conference on Innovations in Business & Management*, London, UK.

Black, F. 1976. "The Dividend Puzzle". *Journal of Portfolio Management,* Vol. 2, pp. 5–8.

Black, F., & Scholes, M. 1794. "The effect of dividend yield and dividend policy on common stock prices and returns". *Journal of Financial Economics, 1*(1), 1-22.

Brealey, R.A. & Myers, S.C. 2003. *Principles of Corporate Finance,* 7th Edition, McGraw- Hill/Irwin, pp. 22-23.

Brigham, E. F., & Ehrhardt, M.C. 2002. *Financial Management: Theory and Practice,* 10th Edition, Harcourt College Publishers, pp. 10-11.

Chen, S.S. 2009. "Do higher oil prices push the stock market into bear territory?" *Energy Economics*, 32(2), 490-495.

Collins, J. 1957. "How to study the behavior of bank stocks." *The Analysts Journal, 13*(2), 109-113.

Cologni, A. and M. Manera. 2008. "Oil prices, inflation and interest rates in a structural cointegrated VAR model for the G-7 countries." *Energy Economics*, 30, 856-88.

Corwin, Shane, A. 2003. "The determinants of underpricing for seasoned equity offers". *Journal of Finance,* 58(5), 2249-2279.

Cunado, J., Perez de Garcia, F., 2005. "Oil prices, economic activity and inflation: evidence for some Asian countries." *The Quarterly Review of Economics and Finance* 45 (1), 65-83.

Driesprong, G., Jacobsen, B. and Maat, B. 2008. "Striking oil: Another puzzle?" *Journal of Financial Economics*, 89(2), 307-327.

Ehikioya, B. 2015. "An Empirical investigation of the impact of dividend policy on the performance of firms in developing economies: evidence from listed firms in Nigeria". *International Journal of Finance and Accounting*, 4(5), 245-252.

El-Sharif, I., Brown, D., Burton, B., Nixon, B., and Russell, A., 2005. "Evidence on the nature and extent of the relationship between oil prices and equity values in the UK". *Energy Economics*. 27, 819-830.

Filis, G. 2010. "Macro economy, stock market and oil prices: Do meaningful relationships exist among their cyclical fluctuations?" *Energy Economics,* 32(4), 877-886.

Friend. I., & Puckett, M. 1964. "Dividend and stock prices". *American Economic Review,* 54, 656-682.

Gjerde, O. and Sættem, F. 1999. "Causal relations among stock returns and macroeconomic variables in a small, open economy". *Journal of International Financial Markets, Institutions and Money*, 9, 61–74.

Gorden, M. J. 1963. "Optimal investment and financing policy". *The Journal of Finance*, Vol.18 (2), pp. 264-272.

Gordon, M. J. 1962. "Dividends, earnings, and stock price". *Review of Economics and Statistic,* 41, 99-105.

Gronwald, M., 2008. "Large oil shocks and the US economy: Infrequent incidents with large effects," *Energy Journal*, 29, 151-71.

Hamilton, J. D. 2003. "What is an oil shock?" *Journal of Econometrics*, Volume 113, Pages 363–398.

Hashemijoo M., Ardekani M. M. & Younesi N. 2012. "The impact of dividend policy on share price volatility in the Malaysian Stock Market". *Journal of Business Studies Quarterly*, Vol. 4(1), pp. 111-129.

Huang, R., Masulis, R.W., Stoll, H.R., 1996. "Energy shocks and financial markets". *Journal of Futures Markets*. 16(1), 1-27.

Jensen, M. C. 2001. "Value maximization, stakeholder theory, and the corporate objective function, *Amos Tuck School of Business*, Dartmouth College Working paper No. 01-09.

Jo, H. and Pan, C. 2009. "Why are firms with entrenched managers more likely to pay dividends?" *Review of Accounting & Finance*, Vol. 8 (1), pp. 87-116.

Jones, M.C. and Kaul, G. 1996. "Oil and stock markets". *Journal of Finance*, 51(2), 463-491.

Joshi, R. 2012. "Effects of dividends on stock prices in Nepal". *NRB Economic Review. 24(2), 61-75.*

Khan, W., Javed, M., Shahzad, N., Sheikh, Q., Saddique, S., Riaz, M., and Batool, S. 2014. "Impact of macroeconomics variable on the stock market index; A study from Pakistan". *International Journal of Accounting and Financial Reporting* 4(2), 258-272.

Kilian, L., 2008. "Exogenous oil supply shocks: How big are they and how much do they matter for the US economy?" *Review of Economics and Statistics*, 90, 216-40.

Lake, E., and Katrakilidis, C. 2009. "The effects of the increasing oil price returns and its volatility on four emerged stock markets". *European Research Studies, Vol. XII, issue (1), pp 149-161.*

Majanga, Byson, B. 2015. "The dividend effect on stock price-an empirical analysis of Malawi listed companies". *Accounting and Finance Research,* 4(3), 99-105.

Miller, J.I. and Ratti, R.A. 2009. "Crude oil and stock markets: stability, instability, and bubbles". *Energy Economics*, 31(4), 559-568.

Miller, M. H. and Modigliani, F. 1961. "Dividend policy, growth and the valuation of shares". *Journal of Business,* Vol. 34, pp. 411-433.

Mohanty, S.K., Nandha, M., Turkistani, A.Q., and Alaitani, M.Y. 2011. "Oil price movements and stock market returns: evidence from Gulf cooperation council (GCC) countries" *Global Finance Journal*. 22, 42-55.

Mork, K. A. 1994. "Business cycles and the oil market", *Energy Journal*, volume 15, pages 15–38.

Moyer, R. C., McGuigan, J.R., & Kretlow W.C. 2003. *Contemporary Financial Management,* 9th Edition, Thomson Southwestern, pp. 7-9.

Naifar, N., and Al Dohaiman, M.S. 2013. "Nonlinear analysis among crude oil prices, stock markets' return and macroeconomic variables". *International Review of Economics and Finance*. 27, 416-431.

Nguyen, C.C., and Bhatti, M.I. 2012. "Copula model dependency between oil prices and stock markets: evidence from China and Vietnam" *Journal of International Financial Markets, Institutions and Money*. 22(4), 758-773.

Nishat, M. & Irfan, C.M. 2003. "Dividend policy and stock price volatility in Pakistan". *11th Pacific Basin Finance, Economics and Accounting Conference*.

Pandey, M. I. 2005. *Financial Management,* 9th ed. Vikas publishing House Pvt Limited, (New Delhi).

Profilet, Kyle A. And Bacon, Frank W. 2013. "Dividend policy and stock price volatility in the U.S. equity capital market. *Proceedings of ASBBS Volume 20 Number 1*, ASBBS Annual Conference: Las Vegas, (February 2013)

Reboredo, J.C., and Rivera-Castro, M.A. 2014. "Wavelet-based evidence of the impact of oil prices on stock returns". *International Review of Economics and Finance*, 29, 145-176.

Sadorsky, P. 1999. "Oil price shocks and stock market activity". *Energy Economics*, 21, 449-469.

Sharif, T., Purohit, H., & Pillai, R. 2015. "Analysis of factors affecting share prices: the case of Bahrain stock exchange". *International Journal of Economics and Finance,* 7(3), 34-45.

Shimon, A., and Raphael, S. 2006. "Exploiting the oil-GDP effect to support renewable development". *Energy Policy*. 34(17), 2805-2819.

Somoye, R., Akintoye, I., & Oseni, J. 2009. "Determinants of equity prices in the stock markets". *International Research Journal of Finance and Economics, 30*, 177-189.

Toraman, C.; Basarir, C., and Bayramoglu, M. 2011. "Effects of crude oil price changes on sector indices of Istanbul stock exchange" *European Journal of Economic and Political Studies*, 4(2), 109-124.

Weston, J. F., Copeland, Thomas E., and Shastri, K. 2004. *Financial Theory and Corporate. Policy: International Edition,* 4th Ed. Pearson Publication.

Zakaria, Z., Muhammad, J., and Zulkifli, A. 2012. "The impact of dividend policy on the share price volatility: Malaysian construction and material companies". *International Journal of Economics and Management Sciences,* vol. 2(5), 1-8.

Zhao, X. Q. 1999. "Stock prices, inflation and output: evidence from China". *Applied Economics Letters, 6*(8), 509-511.

Balance scorecard role in competitive advantage of Egyptian banking sector

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Keywords
Banking Performance, Competitiveness, Balance Scorecard, Balance Scorecard Orientation, Balance Scorecard perspectives.

Abstract

Balance Scorecard (BSC) is realized to be an important tool in creating a competitive advantage nowadays. The current research examines the effect of the bank orientation by balanced Scorecards approach on the banking performance and competitiveness. A sample of 50 banking employees is randomly selected to evaluate the mentioned relation using regression analysis. Results showed that there is a significant impact of Balance Scorecard orientation on both; banking performance and competitiveness.

Introduction

The banking sector occupies a significant position in the global economy. The sector has been subject to many external and internal forces in many countries, particularly in Egypt, since the 1990s, when the banking industry undergoes many crises (Hitchins, et al., 2001). Moreover, Egyptian banks are facing many competitive challenges Competitive pressures on banking sector will remain intense, as new players will try to dominate the most profitable business, while existing ones will try to repackage existing product and services to impose higher prices (Hitchins, et al., 2001).

Through field observations of the banking sector in Egypt, there are three important facts. Firstly, performance measurement in the banking sector in Egypt does not attract many researchers. Secondly, the BSC is an approach that is not known within the banking sector in Egypt, and thirdly, the banks are still using primitive performance evaluation systems such as annual, quarterly and monthly reports. More specifically, we found the public banks depend on financial measures such as: ROI, Liquidity Ratio, Financial Leverage Ratio, Profitability Ratio, Credit Ratio, etc. to judge its performance.

Performance measurement had witnessed continuous development by academicians and practitioners due to the growing criticism of financial measures for being short term oriented, considering past performance, being non consistent with current business's environment, focusing on tangible assets, lacking predictive power, reinforcing functional silos, and being irrelevant for all levels in the organizations (Singh & Kumar, 2007). Thus, researchers have been trying to find efficient and effective approaches to measure performance. At the research level, we did not encounter any research work that deals with the implementation of the BSC to measure the performance of public banks in Egypt, and to establish links between their strategic vision and performance objectives.

So, the research will examine the effect of the bank orientation by balanced Scorecards approach on the performance and competitiveness. So, we need to recognize the effect of the importance of the orientation by balanced Scorecards approach on performance of banks and its impact on competitiveness of the bank.

Literature Review

Performance measurement

Performance measurement can be defined as a system by which a company monitors its daily operations and evaluates whether it is attaining its objectives (Lebas, 1995). A series of indicators that properly reflects company performance should be set up to fully utilize the function of performance measurement. These indicators can be quantifiable or unquantifiable. Ihe selection indicators (criteria) can consist of financial measures (e.g., interest costs, process quality errors, return on average assets) and/or nonfinancial measures (e.g., human resource management, service quality, competitive positioning), depending on which methodology is used.

In the study by Devlin and Gerrard (2005), data were drawn from a questionnaire survey that collected the responses of 495 consumers regarding their financial service relationships. The authors performed a statistical analysis of consumer choice criteria and presented an itemized comparison of the relative importance of the selection criteria for main and secondary banking institutions.

In addition, utilizing the financial ratios of the banking data, Kosmidou et al. (2006) took the PARCLAS approach, a multi-criteria classification methodology. They found that small banks show higher overall performance than large banks. The performance factors including noninterest expenses/average assets, loan loss provisions/net interest, interbank ratio, equity/total assets, and equity/net loans, can help to significantly differentiate small banks from large banks.

Many of these studies have mainly used financial indicators (e.g., bank assets, loan, deposits, liabilities, interest income, and operating costs) to evaluate banking performance (Arshadi, & Lawrence, 1987; Collier, 1995; Giokas, 2008; Kosmidou et al., 2006). A relatively large number of studies, such as Anderson, Cox, and Fulcher (1976), Boyd, Leonard, and White (1994), Chia and Hoon (2000), Devlin (2002), Devlin and Gerrard (2005), Elliot, Shatto, and Singer (1996), Lee and Marlowe (2003),and Martenson (1985), have focused on customers and their choices in the context of banking services (Devlin, & Gerrard, 2005; Lymperopoulos, Chaniotakis, & Soureli, 2006). These studies recommend measuring performance using common performance indicators (e.g., price, speed, accessibility, customer service, location, image and reputation, modern facilities, interest rates, opening hours, incentives offered, product range, and service charge policies) rather than evaluating improvements in the implementation of the bank's strategy.

The Concept of Balanced Scorecard

According to Kaplan and Norton (1992), the balanced scorecard is a strategic management technique for communicating and evaluating the achievement of the mission and strategy of the organization. Drury (2008) viewed the balance scorecard as a strategy that creates a focus by translating an organization's visions and strategies into operational objectives and performance measures for the discernable perspectives. It could be claimed that balanced scorecard is one of the important measurement techniques because of its ability to incorporate both financial and non-financial variables in measuring organizational performance. The balanced scorecard is divided into four different perspectives which include financial, customer, internal business processes and learning and growth perspectives.

Financial Perspective

According to Al-Najjar and Kalaf (2012), financial measures convey the economic consequences for the actions already taken by the organization, and focus on the profitability related measures on which the shareholders verify the profitability of their investment. Therefore, under this perspective managers are required to generate measures that answer the question: To succeed financially, how should organizations appear to shareholders?

Timely and accurate funding data will always be a priority, and managers will do whatever necessary to provide it. In fact, often there is more than enough handling and processing of financial data (Kaplan and Norton, 1996).

Customer Perspective

According to Kairu et al. (2013), this perspective captures the ability of the organization to provide quality goods and services, the effectiveness of their delivery, and overall customer service and satisfaction. This will result from price, quality, availability, selection, functionality, service, partnerships and brand value propositions, which will lead to increased customer acquisition and retention (Gekonge, 2005). The BSC demands that managers translate their general mission statement on customer service into specific measures that reflect the factors that really matter to customers (Kaplan & Norton, 1992).

According to Horngren et al. (2012), this perspective helps managers evaluate the question. How do customers see organizations? Customer satisfaction is a top priority for long-term company success. If customers are not happy, they will not come back. Therefore, customer satisfaction is critical to achieving the company's financial goals outlined in the financial perspective of the balanced scorecard. Customers are typically concerned with four specific product or service attributes: Product's price, Product's quality, Service quality at the time of sale, and Product's delivery time (the shorter the better).

The Internal Business Process Perspective

The perspective, according to Gekonge (2005) as quoted by Kairu et al. (2013), "internal processes perspective focuses on the internal business results that lead to financial success and satisfied customers". To meet the organizational objectives and customers' expectations, organizations must identify the key business processes at which they must excel. These key business processes are monitored to ensure that outcomes will always be satisfactory. The internal processes perspective reports on the efficiency of internal processes and procedures. The premise behind this perceptive is that customer-based measures are important, but they must be translated into measures of what the organization must do internally to meet its customers' expectations (Kaplan & Norton, 1992). Al-Najjar and Kalaf (2012) were of the view that internal business processes provide the organization with the means by which performance expectations may be accomplished.

The Learning and Growth Perspective

This perspective looks at how an employee of an organization learns and grow in his/her career to improve the performance of the organization. According to Kairu et al. (2013) the learning and growth perspective examines the ability of employees (skills, talents, knowledge and training), the quality of information systems (systems, databases and networks) and the effects of organizational alignment (culture, leadership, alignment and teamwork), in supporting the accomplishment of organizational objectives'.

Processes will only succeed if adequately skilled and motivated employees, supplied with accurate and timely information and led by effective leadership, are driving them. They will lead to production and delivery of quality products and services; and eventually successful financial performance (Gekonge, 2005).

Strength of Balance Scorecard

There are many benefits drivable from the adoption of balanced scorecard as a performance measurement technique by organizations. The BSC enables the companies to develop a more comprehensive view of their operations and to better match all operating and investment activities to long and short term strategic objectives.

The BSC approach provides a clear prescription as to what companies should measure in order to "balance" the implications in all the functional areas, arising out of the strategic intent. Etim and Agara (2011), states that balanced scorecard as a strategic management system that considers both tangible-financial indices and the intangible-non-financial indices, BSC has been said to be capable of enforcing the achievement of corporate strategies especially as there are causal relationship between the performance of the organization and the effective management of the dynamics of the four perspectives (Kaplan & Norton, 2006).

Weakness of Balanced Scorecard

Salem (2012) opined that although the successfully emergency of BSC and its wide world in many organizations. As other measurement systems, the BSC has attracted criticism from a variety.

Most of these criticisms came from the academic community. This section will explain the most important critical points of the BSC.

The causality relationships between the areas of measurement in the BSC are unidirectional and too simplistic. Some scholars note that there is no cause-and-effect relationship between some of the suggested areas of measurements in the BSC has depended on the relationship between customer loyalty and financial performance as example of these limitations.

The BSC neglects the time dimension. This critical point of the BSC starts from the assumption that the linkage between different points of time must be understood.

The lack of the validation; the reliance of BSC on few measures makes a critical point of BSC.

The lack of the integration between top-levels and operational levels' measures. BSC fails to identify performance measurements as two-ways process. One of the critical points of BSC is its lack of the integration between the top and operational levels which may leads to strategic problematic.

An internally focus. One of the criticisms of BSC is that its framework encourages the focus on internal aspects. The BSC is incapable to answer the questions related to the competitors' movements. Additionally, the BSC does not evaluate the significant changes in external conditions. An ineffective to corporate sustainability. The traditional BSC concept is not effective enough to contribute to corporate sustainability.

BSC in the Banking Sector

Many academics and executives were attracted by the works of Kaplan and Norton, and have attempted to study the BSC concept and work to perfection it on the theoretical and practical levels. The BSC gradually gained popularity in the USA, Europe, Australia, and Latin America (Janota, 2008). The application of the BSC spread among different business sectors including the banking sector. Tapanya (2004) examined the factors which affect the performance management systems in a highly uncertain and rapidly changing environment through the application of the BSC approach.

Through several consecutive qualitative and quantitative studies in the Thai banking industry post the 1997 financial crisis, the institutional forces play a decisive role in the selection of the performance measurement system regardless of the strategic orientation and/ or the firm's ownership. Pandy (2005) reported the results of a simulated exercise where a group of senior managers (attending an educational program) of a large bank developed a BSC made for their bank. This experiment demonstrated that the achievement of strategic objectives is highly driven by the internal process improvement and that the non-financial variables surpassed the financial variables. Harold (2006) applied the BSC to develop a comprehensive performance measurement and a management tool for the IT in the banking sector in India.

Harold (2006) clarified how a cascade of balanced scoreboards can be useful in the technology effectiveness of commercial banks in India to guarantee better performance management. Huang and Lin (2006) examined the performance system of five commercial banks in China. Through investigations and evaluations of the current performance systems of the sample banks, the authors were able to design a new performance evaluation system based on the BSC. Chwan-Yi and Lin (2009) attempted to develop an integrated framework by merging the concepts of the BSC and the Data Envelopment Analysis (DEA).

Fakhri et al. (2011) attempted to explore the usefulness of a multi-perspective performance measures in the banking sector in Libya. Through an extensive literature review, the authors identified some performance measures and have investigated the impact of five organizational individualities on these measures. Based on a survey in a sample of 55 banks in Libya, the study reported that most banks place their emphasis on financial measures as a first step to evaluate performance, however, many of the banks surveyed tended to implement customer related measures and other non-financial measures such as learning and employee growth.

Yek et al. (2007) studied the use of the BSC as a strategic management system to improve the performance quality of the Vocational Educational and Training (VET) in Singapore. This work attempted to explore and improve the understanding of quality and performance using the BSC approach. The authors claim that the BSC can be adopted as an effective quality and performance management system in a VET institution with appropriate adaptations. Greiling (2010) performed an explorative empirical study on a sample of 20 non-profit organizations in the social services sector in Germany.

The BSC had been found as a successful strategic performance management tool suitable for the banking sector, as banks can benefit from its applications in performance measurement and strategy alignment (Aranda, & Arellano, 2010; Chen et al., 2008; Davis, & Albright, 2004). Therefore, numerous studies (e.g. Aranda, & Arellano, 2010; Chen et al., 2008; Davis, & Albright, 2004; Littler et al., 2000; Meyer, & Markiewicz, 1997; Wu et al., 2009) have employed the BSC structure to focus on performance measurement for banking institutions rather than on creating strategy maps.

Indeed, the above studies make no attempt at strategy mapping, which is nevertheless the vital part in constructing a BSC system that can assist management in identifying the causal relationships between performance indicators (Evans, 2007; Gonc¸alves, 2009; Kaplan, & Norton, 2004a). As a result, there is a need not only to produce and properly screen effective criteria consisting of financial and nonfinancial indicators for banking performance measurement but also to build efficient strategy maps that indicate the logical links between performance indicators in evaluating improvements for strategies (Jassbi et al., 2011).

The Concept of Bank's Competitiveness

The concept of competitiveness has multiple interpretations. Competitiveness depends on different variables, but by summarizing the definitions, the authors came to conclusion that competitiveness is a strategic management comparison tool that shows the existing performance of the bank and further ability to compete in a certain market.

Competitiveness is bank's flexibility and ability to maintain or to improve the position within the changing environment in the particular market. It shows the bank's position in the market, because it is possible to evaluate bank's overall performance and compare it with other players in the local and global market. By competing, the banks use their capabilities, for instance, effective resource management. Usually, (Hamel & Prahalad, 1994), the effective use of resources is based on bank's employees, for example, on their knowledge. In addition, the knowledge is very significant in contributing to bank's intangible assets. The intangible assets are very important in the perspective of private health care bank's competitiveness.

Competition promotes new solutions, values. Every private health care bank is involved in competition environment, some are more, some less, but the approaches that banks use to strive for better results in the market and be more competitive are different. The success base of this is a tailored bank strategy and the balance between the available resources. However, for excellent results banks ought to evaluate also their competitive advantage that increases the bank's possibility to compete in the particular market segment (Porter, 1998)

BSC and Competitiveness

Creating *competitive advantage* (Swayne, Duncan & Ginter, 2006) "is often a matter of selecting an appropriate basis on which to compete, it is the means by which the organization seeks to develop cost advantage or to differentiate itself from other organizations". According to this definition, it might be focused on image, higher quality services, as well as excellent and widely recognized personnel. Not only strategic manager researchers (Porter, 1998), (Barney, 2007), but as well Latvian authors of strategic management research (Caune, & Dzedons, 2009) point out that competitive advantage is not only a question of internal environment analysis, it needs to be analyzed also in the context of external environment; it is also necessary to find out the impact of industry on bank's competitive advantage.

In order to create base for competitive advantage, bank can use the concept developed by Jay Barney (2011) Value Based Management, who is considered as the father of modern resource based

view. The four empirical indicators of the potential of bank resources to generate sustained competitive advantage are following (Value Based Management, 2011):
V = Valuable, R = Rare, I = Imperfectly Imitable, N = Non Substitutability

The author Phadtare (2011) believes that banks are able to compete on the three primary elements: quality, price, availability. According to this theory, the focus is on how suitable the characteristics of the product or service are how affordable the price is in relation to products or service quality.

As a conclusion, performance management of commercial banks is an important aspect of banking business management. So, this study try to illustrate how to use the Balanced Scorecard as a tool, which is applied to commercial banks performance management system, and points out that it breakthrough the defects in the traditional single application of financial indicators which measures performance. It also raises the value of performance management appraisal system based on the introduction of customer factors, internal business processes, employee learning and growth and financial factors. So this study also tries to study how BSC affected on bank performance and competitiveness.

Research Methodology

Type of Research

There are many points of views can use to classify this research. According to purpose viewpoint, this research is applied research. Whereas, this research aims to improve understanding the relationship between BSC and bank performance and competitiveness. And the research context is undertaken by people based in variety of setting including banks and the research context is tight time scales. But according to objective view point, this research is explanatory research. Whereas, this research clarify how and why there is a relationship between BSC and Competitiveness. But according to information sought viewpoint ,this research is a quantitative research. Whereas this research measure the research variables by using questionnaire designed to according Likert Scale and after collecting empirical data, we will use the suitable statistics methods to find the end results.

This research related to the positivist paradigm because the research tries to confirm about the relationship between BSC and competitiveness in banking sector .and that its properties should be measured through objective methods rather than being inferred subjectively through sensation. There are many elements refer to this research follow the positivism paradigm whereas, the researcher is independent about the research phenomenon and his interests are irrelevant, and the explanation is demonstrate causality, the research progress through hypothesis and deduction, and concepts are operationalized. So that, they can be measured, the units of analysis are reduced to simplest form ,and sampling requires large numbers selected randomly.

Also, we can find this research is followed to a deductive methodology approach. Whereas this research starts with literature about BSC and competitiveness followed by empirical investigation to test an existing theory and verify its validity empirically.

Research Hypotheses

The Research hypotheses could be stated as follow:

H_1: There is a significant positive relationship between the BSC system orientation and the level of the bank performance.

H_{1a}: There is a significant positive relationship between the BSC system orientation and the level of the bank learning and innovation performance.

H_{1b}: There is a significant positive relationship between the BSC system orientation and the level of the bank process performance.

H_{1c}: There is a significant positive relationship between the BSC system orientation and the level of the bank customer performance.

H_{1d}: There is a significant positive relationship between the BSC system orientation and the level of the bank financial.

H_2: There is a significant positive relationship between the level of the bank performance according BSC system and the bank competitiveness.
H_3: There is a significant positive relationship between the BSC system orientation and the bank competitiveness.

Research Question

Is the BSC system orientation can be contributed to enhance of the bank performance?
If the bank enhances the performance according to BSC system, Can improve the competitiveness of the bank?
What is the current situation about BSC system in the Egyptian bank sector?
What is the obstructs that the bank encounter if the bank try to applied the BSC system?
What are the most success factors that related to apply BSC system in Egyptian bank system?

Population and Sampling

There are many decisions in sampling; research population, sample, sample unit, unit of analysis and research limitations. The research population is a set of banks that operating in Egypt, regardless of the field of activity, whether commercial banks or investment banks or specialized banks and also regardless Egyptian banks or foreign banks operating in Egypt.

The sampling frame of this research includes 40 banks operating in Egypt according to the Egyptian Central Bank report in 2015. The sample type for research is simple random sample, a number of randomly selected 50 bank employees to answer on research questionnaire from 3 banks located in Alexandria city in Egypt. The sampling unit is the commercial bank but the unit of analysis is staff of the bank. This research applied on commercial banks branches located in Alexandria Province during year 2015 and not consider Islamic Bank, Industrial bank.

Research Model

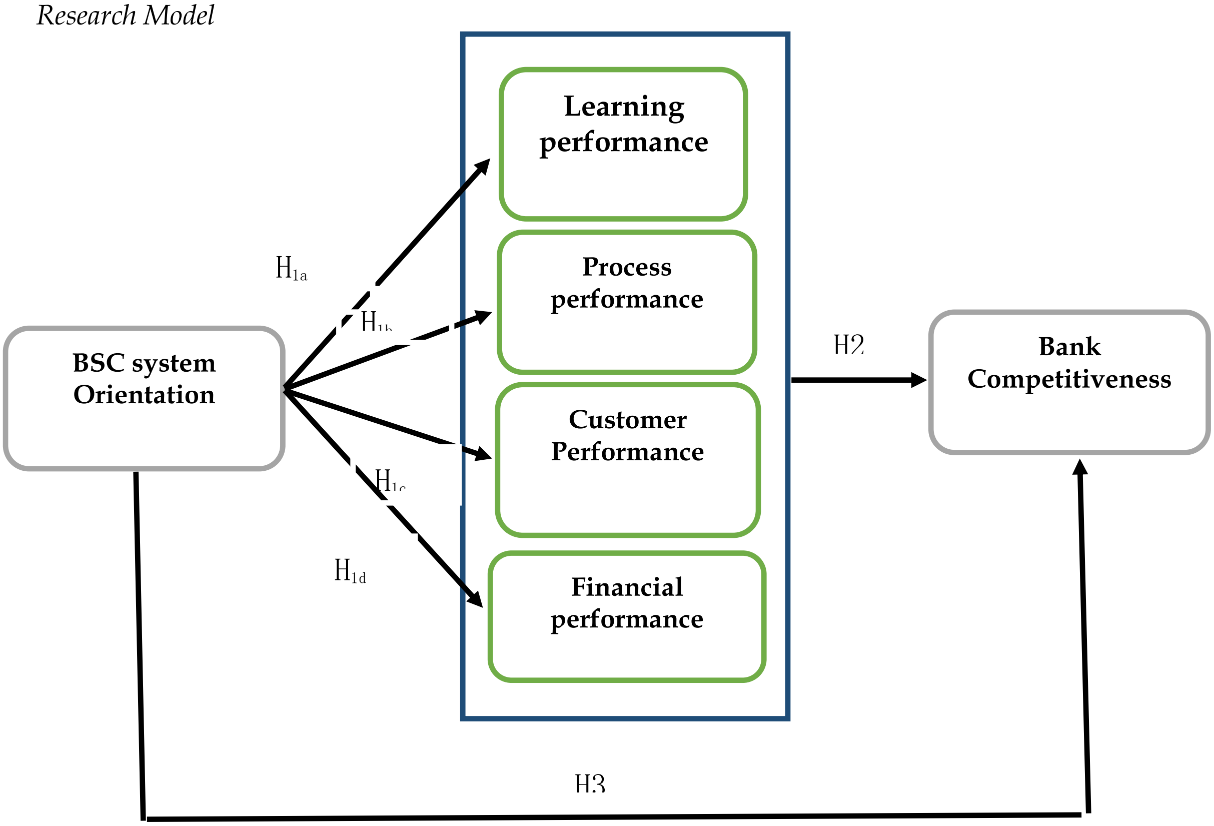

Figure (1): Research Model

Data Collection Method

The data collection method of research is survey by using self-administrated questionnaire. We use Likert five categories scale (strongly agree, agree, neither nor disagree, and strongly disagree) to measure employees responses about research variables.

Data Analysis

Validity and Reliability of Measurements

Reliability

To estimate the measurements reliability we will find the Cronbach Alfa (Coefficient of Alfa) by using SPSS version 22 program . If Alpha (α) is more than or equal 0.60 for each measurement , then the measurement will be reliable.

Validity

It is the extent to which a concept, conclusion or measurement is well-founded and corresponds accurately to the real world. The validity of a measurement tool is considered to be the degree to which the tool measures what it claims to measure.

Statistically by using SPSS version 22, we can measure convergent validity by using factor analysis and find both the total variance explained (VE) and factor loading for each variable. If AVE is more than or equal 0.50 and factor loading for each variable more than or equal 0.60, the measurement of variable will have convergent validity but if the coefficient of relationship between any two variables more than or equal the root square of its correlation variables, the measurements of two variables will have Discriminant validity. The next table illustrates the reliability and validity results.

Table (1): Reliability and Validity results

Variable	Code	Factor Loading	AVE	Cronbach's Alpha
Learning performance	L1	0.87	55.495	68%
	L2	0.75		
	L3	0.64		
	L4	0.72		
	L5	0.82		
Process performance	P1	0.63	60.513	75%
	P2	0.72		
	P3	0.65		
	P4	0.54		
	P5	0.65		
	P6	0.78		
	P7	0.56		
Customer Performance	C1	0.64	59.9	62%
	C2	0.78		
	C3	0.62		
	C4	0.81		
Financial performance	F1	0.73	62.64	85%
	F2	0.62		
	F3	0.56		
	F4	0.54		
	F5	0.87		
	F6	0.53		
BSC system Orientation	O1	0.67	56.43	84%
	O2	0.62		
	O3	0.52		
	O4	0.54		
	O5	0.42		
Competitiveness	CO1	0.72	54.71	79%
	CO2	0.56		
	CO3	0.68		

CO4	0.56
CO5	0.67
CO6	0.74
CO7	0.75
CO8	0.61
CO9	0.71
CO10	0.56

According to the results, the measures are reliable because α is more than 0.60 and also, the measures are valid because the AVE is more than 0.50 and the factor loading is more than 0.6.

Hypothesis Test

To test hypothesis, we use simple linear regression (by SPSS version 22) between *X and Y*. If R^2 is significant (P-value < or = 0.05 or by using F-test the calculated F > tabled F), there are effect from (for example, Information technology (X) on customer relationships management effectiveness (Y)).

R^2 is a determination factor which the variable X illustrate the percentage of explanation from variation of variable Y. and R^2 determine which the Model is valid or not but we use T-test to determine if the correlation (β) between X and Y is significant or not. Whereas, simple linear regression is the least squares estimator of a linear regression model with a single explanatory variable. In other words, simple linear regression fits a straight line through the set of n points in such a way that makes the sum of squared residuals of the model (that is, vertical distances between the points of the data set and the fitted line) as small as possible.

We accept the research hypothesis when the model fit indexes (R^2 and β) is significant (p-value < = 0.05) but reject accept the research hypothesis when the model fit indexes (R^2 and β) is significant (p-value > 0.05)

Table 2 tests the H_{1a} hypothesis, where it could be accepted. The model R^2 is 0.443. It means that CSFs interprets the 0.443 from the variance of KM effectiveness and p-value of the model is < 0.05. The Betas β of the BSC orientation is significant.

Table (2): Regression Analysis of the BSC system orientation and the level of the bank learning and innovation performance

	Unstandardized Coefficients		Standardized Coefficients			
Model	B	Std. Error	Beta	T	Sig.	R^2
1 (Constant)	1.351	.522		2.589	1.351	0.443
BSC Orientation	.661	.129	.665	5.120	.661	

Table 3 tests the H_{1b} hypothesis, where it could be accepted. The model R^2 is 0.238. It means that the KM effectiveness interprets the 0.238 from the variance of KM effectiveness and p-value of the model is < 0.05 .The Betas β of the BSC orientation is significant.

Table (3): Regression Analysis of the BSC system orientation and the level of the bank process performance

	Unstandardized Coefficients		Standardized Coefficients			
Model	B	Std. Error	Beta	T	Sig.	R^2
1 (Constant)	2.059	.609		3.378	.002	.238
BSC Orientation	.495	.154	.488	3.214	.003	

Table 4 tests the H_{1c} hypothesis, where it could be accepted. The model R^2 is 0.088. It means that the KM effectiveness interprets the 0.088 from the variance of KM effectiveness and p-value of the model is < 0.05. The Betas β of the BSC orientation is significant.

Table (4): Regression Analysis of the BSC system orientation and the level of the bank customer performance

Model	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	T	Sig.	R^2
1 (Constant)	2.435	.882		2.760	.009	.088
BSC Orientation	.396	.222	.296	1.783	.084	

Table 5 tests the H_{1d} hypothesis, where it could be accepted. The model R^2 is 0.207. It means that the KM effectiveness interprets the 0.207 from the variance of KM effectiveness and P-value of the model is < 0.05. The Betas β ok the BSC orientation is significant.

Table (5): Regression Analysis of the BSC system orientation and the level of the bank financial

Model	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	T	Sig.	R^2
1 (Constant)	2.503	.516		4.850	.000	.207
BSC Orientation	.407	.138	.455	2.937	.006	

Table 6 tests the H_2 hypothesis, where it could be accepted. The model R^2 is 0.365. It means that BSC performance interprets the 0.365 from the variance of competitiveness and p-value of the model is < 0.05. The Betas β ok the CSFs is significant.

Table (6): Regression Analysis of the level of the bank performance according BSC system and the Bank competitiveness

Model	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	T	Sig.	R^2
1 (Constant)	1.051	1.589		2.662	0.041	.365
Learning	.103	.372	.062	3.277	0.001	
Process	.311	.383	.182	2.813	0.031	
Customer	-.085	.469	-.038	1.182	0.021	
Financial	.483	.325	.321	2.485	0.038	

Table 7 tests the H_3 hypothesis, where it could be accepted. The model R^2 is 0.420. It means the BSC orientation interprets the 0.420 from the variance of competitiveness and p-value of the model is < 0.05. The Betas β ok the CSFs is significant.

Table (7): Regression Analysis of the BSC system orientation and the level of the bank financial

Model	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	T	Sig.	R^2
1 (Constant)	3.287	.417		7.878	.000	.420
X5	.173	.099	.291	1.747	.090	

Descriptive Statistic

Descriptive statistic is the discipline of quantitatively describing the main features of a collection of information, or the quantitative description itself. Sample units are 20 male and 15 female, the most of employees have higher studies qualifications. The most of employees are working at operational level. The average of numbers of working years in the bank is 8.5 years.

Conclusion and Recommendation

According to the research results we can conclude the following; there is a significant positive relationship between the oriented by BSC system and the level of the bank performance. Especially, there is a significant positive relationship between the oriented by BSC system and the level of the bank learning and innovation performance. There is a significant positive relationship between the oriented by BSC system and the level of the bank process performance. There is a significant positive relationship between the oriented by BSC system and the level of the bank customer performance. There is a significant positive relationship between the oriented by BSC system and the level of the bank financial

There is a significant positive relationship between the level of the bank performance according BSC system and the Bank competitiveness. There is a significant positive relationship between the BSC system orientation and the Bank competitiveness.

The decision makers in Egyptian bank sector must be oriented by BSC system to improve the effectiveness of the bank performance and competitiveness.

References

Ahmad, Z., Ahmad, Z., Ahmad, I., & Nawas, M. (2010). Balanced Scorecard: Is it a Spontaneous Performance Measurement Tool? *Interdisciplinary Journal of Contemporary Research in Business*, *2*(2), 100-107.

Ahmed, Z., Bowra, Z., Ahmad, I., Nawaz, M., & Khan, M. (2011). Performance Measures Used by the Commercial Banks in Pakistan within the Four Perspectives of Balanced Scorecard. *Journal of Money, Investment and Banking,* (21),12-20.

Al Sawalqa, F., Holloway, D., & Alam, M. (2011). Balanced Scorecard Implementation in Jordan: An Initial Analysis. *International Journal of Electronic Business Managemen*t, *3*(9), 196-210.

Chwan-Yi, C., & Lin, B. (2009). An Integration of Balanced Scorecards and Data Envelopment Analysis for Firm's Benchmarking Management. *Total Quality Management*, *11*(20), 1153-1172.

Evans, N. (2005). Assessing the Balanced Scorecard as a Management Tool for Hotels. *International Journal of Contemporary Hospitality Management*, *5*(17), 376-390.

Fakhri, G., Menacere, K., & Pegum, R. (2011). Organizational Specificities that affect the Use of Corporate Performance Measurements Process in the Banking Sector. *Journal of Performance Management*. *3*(23), 5-23.

Greiling, D. (2010). Balanced Scorecard Implementation in German non-profit Organizations. *International Journal of Productivity and Performance Management*, *6*(59), 534-554.

Kaplan, R. S., & Norton, D. P. (2000). *The Strategy-Focused Organization: How Balanced Scorecard Companies Thrive in the New Business Environment*. Boston: Harvard Business School Press.

Kaplan, R.S., & Norton, D. P. (1992). The balanced scorecard-Measures That Drive Performance. *Harvard Business Review*, *1*(70), 71-79.

Kollberg, B., & Elg, M. (2010). The Practice of the Balanced Scorecard in Health Care Services. *International Journal of Productivity and Performance Management*, *5*(60), 427-445.

Tapanya, S. (2004). Examining the Factors which Influence Performance Measurement Management in the Thai Banking Industry: An Application of the Balanced Scorecard Framework. PhD. Thesis, Murdoch University.

Yek, T. M., Penney, D., & Seow, A. (2007). Using Balanced Scorecard (BSC) to Improve Quality and Performance of Vocational Education and Training (VET): A Case Study in Singapore. AARE 2007 Conference, November 25 – 29:Fremantle, Australia.

Zhang, Y., & Li, L. (2009). Study on Balanced Scorecard of Commercial Bank in Performance Management System. Proceedings of the 2009 International Symposium on Web Information Systems and Applications (WISA'09) Nanchang, P. R. China, May 22-24, 206-209.

The importance of financial literacy in a global economic era

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Keywords
Financial literacy, financial planning, developed country

Abstract

This paper aims to explain a phenomenon in the financial sector, known as Financial Literacy. Financial literacy is a basic need for every individual to avoid financial problems. Financial difficulties occur not only due to low income only, financial difficulties can also occur if there are errors in financial management such as lack of financial planning or misuse of credit. The increasing financial literacy in many developed countries, it makes sense that the importance of the level of financial knowledge for us. In some countries, financial literacy has been proclaimed into a national program. The results of the study generally illustrate that the low level of financial literacy in developed countries, especially in developing countries. This condition becomes a serious problem because financial literacy has a positive effect on inclusion and financial behavior.

Background

Implementation of education in improving the understanding of finance in the community is necessary. With the rapid development and economic growth, financial institutions have an important role in life in the wider community. With the existence of various financial institutions that make every institution makes every effort to distribute various financial products and services to the community as a whole. In order for the public to be able to determine the products and services that are appropriate to the needs, the public must properly understand the benefits and risks, know the rights and obligations and believe that the selected financial products and services can improve the welfare of the community.

With a sizeable population, Indonesia must be able to prepare itself in the face of global competition in the era of MEA. One way of dealing with finances is how the individual controls his personal financial expenses. When continuous and unlimited expenditures result in individuals being difficult or incapable of controlling finances, this indicates that the individual has a poor level of financial literacy.

Financial literacy is closely related to the well-being of the individual. Financial knowledge and skills in managing personal finance are very important in everyday life. Financial difficulties are not just a function of income only (low income). Financial difficulties may also arise in the event of a mismanagement such as misuse of credit, and the absence of financial planning. Financial limitations can cause stress, and low self-esteem. The existence of financial knowledge and financial literacy will help the individual in managing personal financial planning, so that individuals can maximize the value of money and the benefits obtained by individuals will be greater and improve the life standard.

Financial literacy can be interpreted as financial knowledge, which aims to achieve prosperity (Lusardi and Mitchell, 2007). A good understanding of financial management is the way out of various problems, including reducing poverty. The higher the financial literacy the higher impact to the welfare. Knowledge and understanding of personal finance requires individuals to be able to make the right decisions in finance, so it is absolutely necessary for everyone to optimally use the right instruments and financial products. Lack of knowledge on financial literacy becomes a serious problem and becomes a big challenge for the people in Indonesia. Financial education is a long process encouraging individuals to have financial plans in the future in order to get prosperity in accordance with their lifestyle (Mendari and Kewal, 2013).

Financial literacy is a basic need for everyone to avoid financial problems. Financial difficulties may arise in the event of mismanagement. Having financial literacy is the most important thing to gain a prosperous life. With proper financial management supported by good financial literacy, the standard of living of the people is expected to increase, because no matter how high a person's income level but without proper financial management, financial security will be difficult to achieve. The need for public education on financial products of banks and non-banks is urgent so that people are not easily cheated by any irresponsible parties. The importance of financial literacy in all aspects of personal finance is not due to the difficulty in using the money they have, but individuals is expected to be able to enjoy their life by using their precisely owned financial resources.

Howell (1993) in Zahroh and Pangestuti (2014) states that personal finance management is one of the most fundamental competencies needed by modern society, because day-to-day consumer choices will affect a person's financial security and living standards. Problems in managing personal finances are often underestimated, so people tend to learn about personal finances through the process of trial and error.

In addition to benefits for individuals and communities, financial literacy is also needed to advance the financial services industry because the community is a major user of financial services. Financial literacy will create a chain effect on the level of use of financial products and services, which can then increase profits and encourage financial institutions to innovate in developing more varied financial products and services.

According to Gitman (2004), personal financial management is the art and science of managing the financial resources of individual units. Thus, personal financial management includes two elements of financial knowledge and art in managing. Why art in managing becomes something important too? Because managing activities require discipline and determine priorities derived from self-control. Self-control will help you to stay on the principle of management, such as efficiency and effectiveness. Efficiency, is using resources of funds optimally for the achievement of personal financial management goals. While effectiveness refers to the management of personal finance toward the right goal.

Literature review

Definition of Financial Literacy

Finance is an important aspect inherent in people's lives. Owned financial knowledge can help individuals in determining decisions in determining financial products that can optimize financial decisions. Knowledge of finance becomes very important for individuals to make no mistake in making financial decisions later (Margaretha and Pambudhi, 2015). If knowledge of the financials that they have less, will lead to losses for the individual, both as a result of inflation or decline in economic conditions at home and abroad. Misconceptions cause many people to experience financial losses, as a result of wasteful spending and consumption, unwise in the use of credit cards, and calculate the difference between consumer loans and bank loans. In addition, lack of knowledge about finances causes a person difficult to make an investment or access to financial markets.

Lusardi and Mitchell (2014) states that financial literacy consists of a number of financial skills and knowledge possessed by a person to be able to manage or use a certain amount of money to improve his standard of living and aim to achieve prosperity. Financial literacy is strongly associated with the behavior, habits and influence of external factors. Meanwhile, Chen and Volpe (1998) interpret financial literacy as knowledge to manage finances in order to live more prosperous in the future. Based on PISA 2012: Financial Literacy Assessment Framework (OECD INFE, 2012) it is formulated that financial literacy is a fundamental factor for the growth of economic and financial stability. From a consumer's point of view, good financial literacy leads to a spending decision that puts quality first. This will result in a healthy industry competition and competition will put forward innovation in goods and services offered to consumers. In addition, with good financial literacy can also minimize the occurrence of wrong decisions on emerging economic and financial issues. From a financial service provider's perspective, good financial literacy will provide adequate information about the product as well as a risk understanding. Meanwhile, from the government's point of view, with good financial literacy in the community, the government can obtain maximum tax revenue for infrastructure development and public service facilities.

Financial literacy include the ability to discern financial choices, mambahas money and financial issues without discomfort, plan for the future, and respond competently to life events that affect everyday financial decisions, including events in the general economy. Financial literature occurs when an individual has a set of skills and abilities that can leverage existing resources to achieve goals. Financial literacy helps to improve the quality of financial services and contribute to the economic growth and development of a country. Increasing the complexity of the economy, individual needs and financial products, the individual must have financial literacy to manage his personal finances.

Learning process can be interpreted as individual knowledge to understand something Knowledge related to finance called financial literacy. (Lusardi and Mitchell, 2007) defines financial literacy as financial knowledge and ability to apply it (knowledge and ability) (monetery economic journal). Financial Literacy occurs when an individual is capable (literate) is someone who has a set of skills and abilities that make people able to utilize existing resources to achieve goals. Literacy is an important thing that must be had to achieve its goals.

The level of financial literacy finance from the standpoint of individual or family can have an impact on the ability to have a long-term savings that used to own the assets (such as land or a house), the fulfillment of higher education and retirement (pension) (Aribawa, 2016). Financial literacy is defined as a person's ability to acquire, understand and evaluate the relevant information for decision making by understanding the financial consequences arising (Mason and Wilson, 2000). Informed decisions are recognized as instruments for achieving expected results. Financial literacy only makes a person able to make decisions based on relevant information. Financial literacy does not guarantee that the right decision is made, because one does not always make decisions based on economic rationale (Mason and Wilson, 2000).

Research conducted by Navickas, et al. (2013) states that individual financial planning responsibilities need to be done as early as possible, since financial mismanagement will be very disadvantageous and difficult to fix in the future. The results of this study indicate a lack of financial knowledge that causes households unable to manage finances well, spending some money to buy something less necessary. This causes the deposit level to be low and the return on investment is low. Other conclusions from the study include a high level of awareness of financial literacy that positively impacts everyday decisions and encourages higher levels of savings that ultimately improve the quality of life in the long term.

According to Rohrke and Robinson (2000), financial literacy is the best way to teach consumers about the benefits of having relationships with financial institutions such as funding and credit, the ability to build positive finances. Meanwhile, according to Hailwood (2007) financial literacy will affect how people save, borrow, invest and manage finances. Furthermore, financial skills here also emphasize the ability to understand the basic concepts of economics and finance, so how to apply them appropriately.

Financial literacy is divided into four aspects consisting of basic financial knowledge, saving and borrowing, protection (insurance), and investment (Chen and Volpe, 1998). According to Zahriyan (2016), basic financial knowledge which includes expenditure, income, assets, debt, equity, and risk. This basic knowledge is usually associated with making decisions in investing or financing that can affect a person's behavior in managing money owned.

In terms of finance, this financial intelligence includes 4 aspects of how to get money, how to manage money, how to save money and how to use money. From this simple definition, we come to know that the majority of people are still struggling with how to make money, have not thought of three other aspects. Moreover, they are still struggling to get money that only one aspect of it. So we also know that why there are artists, sportsmen or other professions who in his rich glory can be poor in his old age because he just understood how to earn money and do not know correctly how to manage, store and use it.

Dimension Financial Literacy

Financial literacy includes several financial dimensions that must be mastered. Chen and Volpe (1998) mention several dimensions of financial literacy that include general knowledge of finance, savings and loans, insurance, and investment.

General knowledge of finance

According to Wagland and Taylor (2009), knowledge of finance includes personal financial knowledge, which is how to manage income and expenditure, and to understand basic financial concepts. Basic financial concepts include simple interest rate calculation, compound interest, inflation influence, opportunity cost, time value of money, liquidity of an asset, and others.

Savings and loans According to Garman and Forgue (2011), saving is the accumulation of excessive funds acquired by deliberately consuming less than income. In the selection of savings, there are six factors to consider (Kapoor, et al., 2004), ie:

Rate of return (percentage increase in savings),

Inflation (need to be considered with the rate of return because it can reduce purchasing power),

Tax considerations,

Liquidity (ease of withdrawing short-term funds without loss or burdened fees),

Security (whether there is protection against losing money if the bank is experiencing financial difficulties, and

Limitations and fees (delays in interest payments entered in the account and charging fees of a particular transaction for deposit withdrawal).

Insurance

According to Mehr and Cammack (1980), insurance is a tool to reduce financial risk, by collecting exposure units in sufficient quantities, to make individual losses predictable. Then, the foreseeable loss is uniformly shared by the merged.

Investment. According to Garman and Forgue (2011), investing is saving or placing money in order to work so it can generate more money. The way one often invests in investing is by putting money into securities including stocks, bonds and mutual funds, or by buying real estate.

Implementation of financial literacy in developed countries

Financial literacy in the United States is a concept that is increasingly recognized after the occurrence of financial recession in the country. The advance of the financial sector in the superpower is encouraging the emergence of various kinds of financial derivatives instruments. On the other hand, workers 'retirement plans are now more dependent on Defined Contribution, whose compensation depends on the money invested in the program participants' accounts and their investment performance (Lusardi and Mitchell, 2014). Not to mention the variety of other products such as student loans, mortgages, credit cards, and so forth. Thus, given the vast number of financial instruments available today, knowledge of financial management is not only required at the organizational level but also in individuals, so as to make complex financial decisions appropriately, both now and in the future.

The US financial recession is a very meaningful lesson. Financial deregulation by the US government, fraud committed by consultants and financial businesses with the goal of making the most profit by encouraging investors to invest money in unprofitable investments, shook up the US capital market in 2008 (Ferguson, 2010) . With globalization, the crisis is worldwide. Not only do Americans feel the impact, but also other countries whose economies depend on the US. The magnitude of the impact of the recession, making the idea of the importance of existing long-standing knowledge and financial decisions come to the fore and become an important concern for researchers.

Starting from an awareness of the importance of financial literacy to be grown from an early age, various non-governmental organizations in the United States have a practical financial education starting from the primary school level. The Junior Achievement program, which was founded in 1919 in addition to educating participants about entrepreneurship and job readiness, the non-profit organization also organizes financial literacy programs such as more than money for elementary school students and finance park for middle school and high school students (JA). Even the National Financial Educator Council (NFEC), a profit organization specializing in financial literacy education, has a curriculum devoted to Pre-Kindergarten students to college students and adults (NFEC). In essence, all these financial literacy programs aim to produce well-informed individuals who can make intelligent financial decisions in life, thereby improving their quality of life especially in finance.

Financial literacy is also growing rapidly in other parts of the world, such as in, Germany, Italy, Sweden, Netherlands, Japan and New Zealand (Lusardi and Mitchell, 2011). It is understood that the development of financial literacy has a positive impact on micro and macro-economic development, so the United States formed a separate organization for this area, such as International Network Financial Education and National Council on Economic Education. A good financial literacy will make smart consumers, able to sort goods, be able to manage finances well and plan for the future. Thus, the government will be easy to carry out economic policy, related to capital market, inflation and so on. When the government raises interest rates, people who know financial literacy will choose to save rather than invest. Consumers who understand financial literacy will be more intelligent in choosing and complaining.

Conditions and recommendations for financial literacy improvement in Indonesia

The development of financial literacy in Indonesia does not seem to be as fast as its development in the United States. However, the program initiative to increase the level of financial literacy has been started since 2013 by The Financial Services Authority/Otoritas Jasa Keuangan (OJK), realizing the low level of financial literacy based on OJK suvei conducted.

An important mission of the financial literacy program is to educate the financial community to the Indonesian people in order to manage the finances intelligently, so that the low knowledge of the financial industry can be overcome and people are not easily fooled by investment products that offer high profits in the short term without considering the risks. The need for public understanding of products and services offered by financial institutions, the national strategy of financial literacy proclaims three main pillars. First, put forward the educational program and national campaign of financial literacy. Second, in the form of strengthening of financial literacy infrastructure. Third, talk about the development of affordable financial products and services. The implementation of the three pillars is expected to realize the people of Indonesia who have a high level of financial literacy so that people can choose and utilize financial services products to improve welfare (OJK, 2013).

Through the initiative of the program of increasing the financial literacy level beginning in 2013 by the Financial Services Authority (OJK), shows the low level of financial literacy. Based on a survey conducted by OJK in 2013, the level of financial literacy of the Indonesian population is divided into four parts: 1) Well literate (21.84%), which has knowledge and belief about financial services institutions and financial services products, including features Benefits and risks, rights and obligations related to financial products and services, and have skills in using financial products and services; 2) Sufficient literate (75.69%), have knowledge and confidence about financial services institutions and financial products and services, including features , Benefits and risks, rights and obligations related to financial products and services, 3) Less literate (2.06%), knowledgeable only about financial services institutions, financial products and services, and 4) not literate (0.41%), Have no knowledge and confidence in financial services institutions and financial products and services, and lack the skills in using financial products and services.

In order to increase the financial literacy of the Indonesian population OJK has collaborated with several universities such as University of Indonesia, Gajah Mada University, Diponegoro University, and University of Muhammadiyah Malang which is planning to hold a financial thematic Working Lecture (KKN) thematic finance (Mohamad, 2014). Education on financial literacy is still dominated by the faculty of economics at universities in Indonesia.

Student empowerment is a widely practiced practice in developed countries in disseminating financial knowledge through student volunteer programs, such as Syracuse University with a student to student program, the George Washington School of Business holds opportunities for volunteers consisting of students, staff and alumni to Share financial knowledge both on and off campus, and the University of Nebraska-Lincoln Student Money Management Center also opens a student volunteer program to promote, write articles, teach, bulletin designers or become a social media ambassador on financial management.

Meanwhile, conditions in Indonesia, financial literacy research on the level of students is still very needed because it is still very rare. Therefore, OJK is expected to increase the cooperation with various universities in Indonesia to educate about financial literacy considering the large potential of students in improving financial literacy of the community.

References

Aribawa, D. (2016). Pengaruh literasi keuangan terhadap kinerja dan keberlangsungan UMKM di Jawa Tengah. *Jurnal Siasat Bisnis*, *20*(1), 1-13.

Chen, H., & Volpe, R. P. (1998). An analysis of personal financial literacy among college students. *Financial services review*, *7*(2), 107-128.

Ferguson, N. (2010). Complexity and collapse: empires on the edge of chaos. *Foreign Aff.*, *89*, 18.

Garman, E. T., & Forgue, R. (2011). *Personal finance*. Cengage Learning.

Gitman, L. (2004). Principle of Finance,(11th ed).(2002). Prentice Hall, New Jersey

Hailwood, DWAK. (2007). 'Financial Literacy and its Role in Promoting a Sound Financial System', Reserve Bank of New Zealand, Vol 70, No. 2.

Kapoor, M. C., Dugal, J. S., Sharma, S., & Singh, S. (2004). Percutaneous transvenous mitral commissurotomy--a life saving option in severe mitral stenosis with cardiogenic shock. *Annals of cardiac anaesthesia*, *7*(2), 158.

Lusardi, A., & Mitchell, O. S. (2007). Baby boomer retirement security: The roles of planning, financial literacy, and housing wealth. *Journal of monetary Economics*, *54*(1), 205-224.

Lusardi, A., & Mitchell, O. S. (2011). Financial literacy around the world: an overview. *Journal of pension economics & finance*, *10*(4), 497-508.

Lusardi, A., & Mitchell, O. S. (2014). The economic importance of financial literacy: Theory and evidence. *Journal of Economic Literature*, *52*(1), 5-44.

Margaretha, F., & Pambudhi, R. A. (2015). Tingkat Literasi Keuangan pada Mahasiswa S-1 Fakultas Ekonomi. *Jurnal Manajemen dan Kewirausahaan*, *17*(1), 76-85.

Mason, C. L., & Wilson, R. (2000). *Conceptualising financial literacy*. © Loughborough University.

MEHR, R. I., & CAMMACK, E. Principles of insurance, Homewood IL 1980. *Cit. Principles*.

Mendari, A. S., & Kewal, S. S. (2013). Tingkat literasi keuangan di kalangan mahasiswa STIE MUSI. *Jurnal Economia*, *9*(2), 130-140.

Mohamad, A. (2014). Uang. Retrieved October 29, 2014, from Merdeka.com:

http://www.merdeka.com/uang/setelah-guru-ojk-ingin-sebar-ilmu-keuangan-lewatkkn-kampus.html

Navickas, M., Gudaitis, T., & Krajnakova, E. (2014). Influence of financial literacy on management of personal finances in a young household. *Business: Theory and Practice/Verslas: Teorija ir Praktika*, *15*(1), 32-40.

OECD INFE. 2012. *PISA 2012 Literacy assessment framework.* [Report Paper]

Otoritas Jasa Keuangan. (2013). Beranda. Retrieved October 27, 2014, from Informasi dan Edukasi Konsumen Keuangan OJK: http://sikapiuangmu.ojk.go.id/public/content/files/SNLKI.pdf

Rohrke, A, & Robinson, L (2000). 'Guide to Financial Literacy Resources', Journal of Financial Literacy.

Wagland, S. P., & Taylor, S. (2009). When it comes to financial literacy, is gender really an issue?. *Australasian Accounting, Business and Finance Journal*, *3*(1), 3.

Widdowson, D., & Hailwood, K. (2007). Financial literacy and its role in promoting a sound financial system. *Reserve Bank Of New Zealand Bulletin*, *70*(2).

ZAHRIYAN, M. Z. (2016). *Pengaruh Literasi Keuangan Dan Sikap Terhadap Uang Pada Perilaku Pengelolaan Keuangan KeluargA* (Doctoral Dissertation, STIE Perbanas Surabaya).

ZAHROH, F., & PANGESTUTI, I. R. D. (2014). *Menguji Tingkat Pengetahuan Keuangan, Sikap Keuangan Pribadi, Dan Perilaku Keuangan Pribadi Mahasiswa Jurusan Manajemen Fakultas Ekonomika Dan Bisnis Semester 3 Dan SEMESTER 7* (Doctoral dissertation, Fakultas Ekonomika dan Bisnis).

The International Strategies of SMEs in the debt crisis: A Model to Succeed in the Global Market

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Keywords
International entrepreneurship, small to medium-sized enterprises, Debt Crisis, Economic Development, European Union, Uncertainty, Risk, Growth, Policies

Abstract
This paper explores the internationalization process of European SMEs such as Greece, France Italy, and Spain who are operating in economic austerity. The goal of the paper is to unearth economic and strategic responses in their international markets to construct explanatory models which optimize their individual characteristics and structures. This empirical study will examine European SMEs in the sector of green technology for energy and food and will identify key actions related to different phases of their internationalization : policy and strategies, achievements and the future outlook. A secondary aim is to reveal feasible and assured paths for SMEs willing to sell outside of their country borders. It also addresses important obstacles and practical impications to be considered in the international development of European SMEs in austerity economic conditions.

The weight of weighting – an empirical study based on the OECD better life index

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Key words
well-being measure, weighting, composite indicator, ranking

Abstract

The measurement of the well-being of a country has important roles, such as supporting policy makers and researchers, making comparisons between countries or regions, or informing citizens. The Stiglitz-report in 2009 declared that well-being is a multidimensional phenomenon and any properly selected dimensions should be considered simultaneously. Therefore, most well-known well-being indicators are so called composite indices, where the dimensions are aggregated with a specific weighting scheme.

This paper focuses on the potential weighting schemes and their effect on the final value of indicators together with the rankings they produce. After the description of the main features and elements of well-being measures and aggregating procedures in general, the author introduces the results of an empirical study that is based on the Better Life Index (BLI). The Organization for Economic Co-operation and Development (OECD) proposed the Better Life Initiative in 2011. Since then, the data of 36-38 countries for five years have been made available. BLI assesses well-being of countries on the basis of two domains (material living conditions and quality of life) and eleven dimensions (income and wealth, jobs and earnings, housing, health status, education and skills, work and life balance, civic engagement and governance, social connections, personal security, environmental quality and life satisfaction). Equal weights are applied to each of these dimensions, however, users can select different (0-5) weights based on their personal preferences, which changes the ranking of the countries.

The main findings of this research are the results that indicate the impact of the different combinations of weights. Descriptive statistics and correlation analysis have been applied in order to illustrate the findings of the varying weight simulations. The paper concludes with additional questions that outline possible further research directions.

The ideas and results of this research are the original work of the author and have not been published elsewhere.

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Introduction

The purpose of creating composite indicators (CI) is to measure some complex, directly unmeasurable phenomenon (such as competitiveness, sustainable development, innovation or well-being), so that it may become possible to support policy related decisions, government programs, regional development, etc. Usually, composite indicators serve the basis of ranking countries or regions or of comparing their performance.

There is no "single-best practice" for creating such indices, as their complexity, their extent and their objectives may differ in many ways. However, the main steps and decision points of this process follow a certain logic, which forms the first part of this paper, with special emphasis on the potential ways of aggregation (weighting). In the second part, the Better Life Index (BLI) of the Organization for Economic Co-operation and Development (OECD) – as an example of CI within well-being measures – is used to illustrate the importance of weight selection. Results of earlier studies that tackle the methodology of BLI are discussed along with the inferences of weighting simulations in the third section.

The Construction of Composite Indicators

Mostly, it is easier for the general public or policy makers to interpret and understand CIs than it would be to make sense of individual trends and details of numerous indicators. Rankings and the benchmarking of countries are also easier and more transparent through CIs (Saltelli, 2007). They can also assess progress of countries over time. However, CIs may communicate misleading messages through oversimplification or if they are ill-structured. This is what makes CI development a great responsibility.

The main steps of creating a well-structured CI are (OECD, 2008):

Developing the theoretical framework: A sound theoretical framework should clearly define the concept behind the phenomenon that it intends to measure, including its purpose. Based on the multidimensional concept, it is also necessary to determine the sub-groups and the precise selection criteria of potential components.

Selecting the relevant and available indicators: The overall strength of a CI largely derives from the quality of the underlying indicators. There are several criteria that can be used to evaluate data quality (accessibility, timeliness, relevance, soundness, etc.) and ideally all of them should be taken into account. In most cases, official statistics are the best to apply, as they comply with several regulations, and are harmonized in space and time. In case of cross-country comparisons, harmonized data content is especially important. Handling of missing data: There are several statistical methods for the imputation of missing data. However, imputation can only be a solution if the ratio of missing information is reasonably low. And even in these cases the methodology and the extent of the method must be described in a transparent way. Researchers should aim to work with indicators that are available for every necessary observation unit on each level.

Multivariate analysis: The underlying nature and the structure of the selected indicators need to be analyzed carefully. This step helps with identifying redundant variables and it also supports later methodological choices regarding aggregation or weighting. Factor analysis can explore the underlying dimensions so the experts can compare these empirical results with the theoretical concept of the subgroups. Cronbach alpha estimates the internal consistency of the items. Cluster analysis groups the observed elements (e.g. countries), not the indicators, based on the selected set of variables. It tells us which variables are indeed different and helps researchers find countries that are similar to each other. The results of multivariate analyses can verify the theoretical framework and the selected set of variables, or they can provide guidance on how these two basic steps may be reconsidered.

Data normalization: The selected indicators are most likely to have different measurement units or they may be measured at different orders of magnitude. It is not an objective to assign a dominant role to a variable that has the highest values, therefore, a common measurement or scale needs to be created. Certain transformations may also be necessary if the distribution of the indicators is, for instance, highly skewed. There are several normalization techniques (simple ranking, categorical scales, min-max transformation, z-scores, above or below the mean indicators, etc.) and each of these techniques has pros and cons. There are no clear rules to assist the choice – the suitable normalization method has to rely on the properties of the data set and the objectives of the CI.

Deciding about the weighting and aggregation scheme: The simplest weighting technique is the use of equal weights (EW) for each indicator or dimension. Sometimes it is said that there are "no weights" in this case, however, equal weights mean that every dimension is equally important. Budget allocation process builds on the opinion of a specific group (experts, citizens, etc.). They have a limited budget which they have to spend to cover all given dimensions. The weights are calculated as the average budget. Factor analysis can also be applied to create one factor of the dimensions (like the CI itself) that captures the most of the information content (variance) of the dimensions. It can be declared as an objective tool, however it is only based on the "natural" correlation among the dimensions and it is rarely in line with the theoretical framework. Another disadvantage of this technique is the uniqueness of the weights: if we run factor analysis in a different year or for a different group of countries, the weights will always be different. There are more complicated methods, which may appear less transparent to some (like analytic hierarchy process, unobserved components model, benefit of the doubt approach, data envelopment analysis).

The two main types of aggregation methods are additive and geometric aggregations. Additive methods can be based on ranks or on the distance from a benchmark. Linear aggregation or arithmetic averaging (which may also consider the weights) is also an additive tool. Geometric mean is an option as a geometric aggregation. Its specialty is the handling of compensability. Geometric mean rewards the similar values of the different dimensions compared to an unequally distributed pattern. So it says that being good in one dimension does not compensate for the poor performance of the other aspects.

The main guidance can be the demand to maintain interpretability and to stay as close to the original meaning and nature of the variables as possible.

Decisions on weighting or aggregation schemes usually have a notable impact on the final ranking of the observed units. This fact puts even more responsibility in the hand of the experts. The selection of the weighting and aggregation method has to be justified in an objective manner with clear facts and logic, which can be rather challenging.

Uncertainty and sensitivity analyses: Uncertainty analyses (UA) aim to quantify how uncertainty within the input factors (e.g. selection of subindicators, data transformation, data normalization, weighting scheme, aggregation formula) disseminates through the structure of the CI and affects its value. Sensitivity analysis (SA) is performed to check the robustness of the results taking into account each individual source of uncertainty separately, i.e. how much the final CI values depend on the assumptions of the theoretical model and the choices during the process of CI development. If the dependence is not substantial, then the basic decisions behind the CI are verified. If the dependence is too heavy, then the theory has to be revisited in an even more rigorous way or it may have to be modified. UA is more often adopted than SA and synergistic use is rather rare. (Saisana et al. 2005) There are also different aspects behind the results of sensitivity analyses: "While the robustness of results with respect to changes in weights may be a good sign, it can also signal potential problems with the specification of the components: if components are highly correlated, a composite will always have similar indices, no matter what the weights." (Freudenberg, 2003 p24)

All these steps are important and have to be worked out precisely, however, there is no "best approach" in any case, just a CI, which is good enough in the light of its aims and the possibilities. This is why the choices are usually under heavy criticism.

Better Life Index

CIs are commonly applied in the field of well-being measures. Well-being itself has a number of complex definitions, in which the extent of the necessary variables (both objective and subjective) indicates a wide range. The construction of well-being indicators is usually motivated by the interest in exploring differences between countries, or by the need to support policy related decisions.

The well-known Stiglitz-report (Stiglitz et al., 2009), based on academic research and initiatives developed around the world, suggests a multidimensional definition that describes well-being in their Recommendation 5. It proposes a set of dimensions that should be considered simultaneously. OECD's Better Life Initiative was proposed in 2011 and it leans on the recommendations of the Stiglitz-report in many ways. A thorough literature review and analysis of the determinants of subjective well-being that is based on the Gallup World Poll also supports and verifies the selected dimensions and variables. (Boarini et al., 2012)

The Better Life Index goes beyond GDP (Gross Domestic Product) and relies on the OECD Measuring Progress Framework which assesses the current well-being of countries on the basis of two domains: material living conditions and quality of life. These two domains are represented by eleven dimensions: income and wealth, jobs and earnings, housing, health status, education and skills, work and life balance, civic engagement and governance, social connections, personal security, environmental quality and life satisfaction. Most of these dimensions are also measured by multiple direct indicators (altogether, 24 variables are included). BLI is complemented by the publication series "How's Life?" which offers a detailed and comprehensive picture of the included countries based on the assessment of the eleven dimensions, together with even more aspects.

On the indicator level, the min-max normalization technique is applied, based on the real range of the different indicators in the given time period. The resulting normalized values vary between zero (the bottom performer) and one (the top performer). It is not clear how they deal with normalization where low indicator values are better. In these cases the ranking is based on a descending order instead of the ascending one. These indicators are: housing expenditures, labor market insecurity, long-term unemployment rate, air pollution, homicide rate and employees working very long hours. (In my research, I have applied these values as 1 – normalized value to be in line with others.)

After normalization, the dimensions can be aggregated. In case of "Your" BLI, where users can set their own weights and preferences, this is implemented in two stages. First, within each dimension, indicators are summed up with equal weights (additive aggregation as the indicators can completely compensate each other). Second, the aggregation (which can be called as weighted linear aggregation or weighted arithmetic mean) across dimensions is done automatically and interactively as the individual users rate the topics. On their interactive homepage, anyone can create their own preferences by assigning arbitrary weights to each of the eleven dimensions. The status of the person's home country and the best country based on the personal preferences update real-time. When rating the topics, individuals select weights as integer values between zero and five. Zero or no rate means that the topic is not important at all, and from one to five, higher values indicate higher importance. This idea is similar to the budget allocation process, however the sum of the given rates has no upper limit, therefore, individuals are not forced to work out their preference list seriously enough. The selected rates are automatically converted into weights that vary from zero to 100%, with the constraint that the sum of weights must be 100%. (Boarini, 2011) Uncertainty and sensitivity analysis results about BLI are not available.

Evaluation of the BLI methodology

In this part the first five general steps of CI construction are considered to be acceptable and reasonable, despite of several critiques and supplementary ideas, especially regarding the question of inequality (Decancq, 2017). The author focuses more on the construction of BLI and the associated scores and ranks. Before the background and the results of the simulations are introduced, conclusions of two other critical studies are summarized, as they complete or support the basic ideas of this paper, however the findings are different from those of this paper.

Von Reumont et al. (2017) discuss the embedding effects in the OECD BLI. They conducted an experiment, where they searched for the difference in the weights because of the different versions of notations. Namely they took the Jobs dimension of BLI (which is built of four indicators), and in the treatment group they replaced it with two dimensions: Job Quality (including personal earnings and job security) and Labor Market (including long-term unemployment rate and employment rate) and created a similar surface for the rating of the dimensions as the OECD BLI website. They kept the original dimension in the control group. They have found that embedding effects truly exist in case of BLI. "Individual preconceived notions of the dimensions seem to decisively affect subjects' ratings, whereas the underlying indicators are largely ignored." (p16) They also conclude that BLI "does not meet its target of providing societies with a credible order of aspects of quality of life which aggregates citizens' preferences." (p17) However, the main idea was to give citizens a tool to create "their own" BLI, which reflects their personal preferences. This study has also measured and analyzed the amount of time that subjects spent on completing the ratings of BLI dimensions. The final results did not show significant relationship by time, even if they kept those who took less than 45 seconds.

Thinking through the embedding effects I have to add another aspect. Importance mentioned by a citizen is sometimes affected by the actual status of that particular indicator. For instance, if an individual has unlimited access to Internet at home, at work or in school, they might not feel that it is important (as it is available) and mark it lower; or an unemployed person might feel employment is much more important compared to those who have always had a job. Or we might consider Maslow's Hierarchy of Needs (Maslow, 1987). As long as a person has shortage in the physiological or safety stages, they might not evaluate the higher stages important (not because they are not important, but because they seem to be too far or even unattainable). These aspects might also affect the personal ratings and weightings of the dimensions.

Kasparian and Rolland (2012), besides other critical statements about the completeness and scoring of the criteria, systematically tested all possible sets of integer weights from zero to five for each dimension by each country, based on the 2011 dataset (34 countries). They conclude that the innovative framework of Your BLI, as a weighted sum model, defines a quasi-hierarchy among the evaluated countries, as the pairwise comparisons depend little on the selection of the weight set. It is in line with the findings of Von Reumont et al. (2017), as they mentioned that the amount of time spent on the rating of the dimensions did not indicate real effect on the final results, but sheds new light upon them. The reason for the insignificant effect of time spent on rating might simply be the "predefined" quasi-hierarchy of the countries.

Kasparian and Rolland also released the constraint of integer weights of the dimensions. Best possible ranks and the probability of #1 position were calculated. They came to similar conclusions: "The BLI defines a hierarchy of the countries, which is only marginally affected by the choice of the weights" (p4).

My research expands on this idea and evaluates the effect of multiple possible weighting schemes. I work with the most recent data of 38 countries from 2017, available on the OECD website (OECD, 2017). My assumption is that weights can continuously vary and each dimension has a non-zero weight. This latter assumption can be justified by the fact that these dimensions were put together to describe well-being within the theoretical framework of the Stiglitz-report and several other researches, hence, each dimension has at least a low importance, but none of them can be ignored completely. I have generated one set of 11 random values (one for each dimension) using the continuous uniform distribution on [0,1], excluding 0. The relative weight of the random value compared to the sum of the 11 random values formed the final weight in case of each dimension, so that the sum of the final weights is 1. I have repeated this 100 times. Then I used these 100 weight sets for each country, and obtained 100 versions of the BLI for each country. Based on these index values I have computed the ranks for each country in each of the 100 scenarios. The mode, minimum and maximum ranks for each country are shown in Figure 1. The range of the ranks by countries vary from 2 to 16. 15 countries have potential ranks that fluctuate by at least ten positions. As we have altogether 38 countries in our list, the differences can be considered relevant.

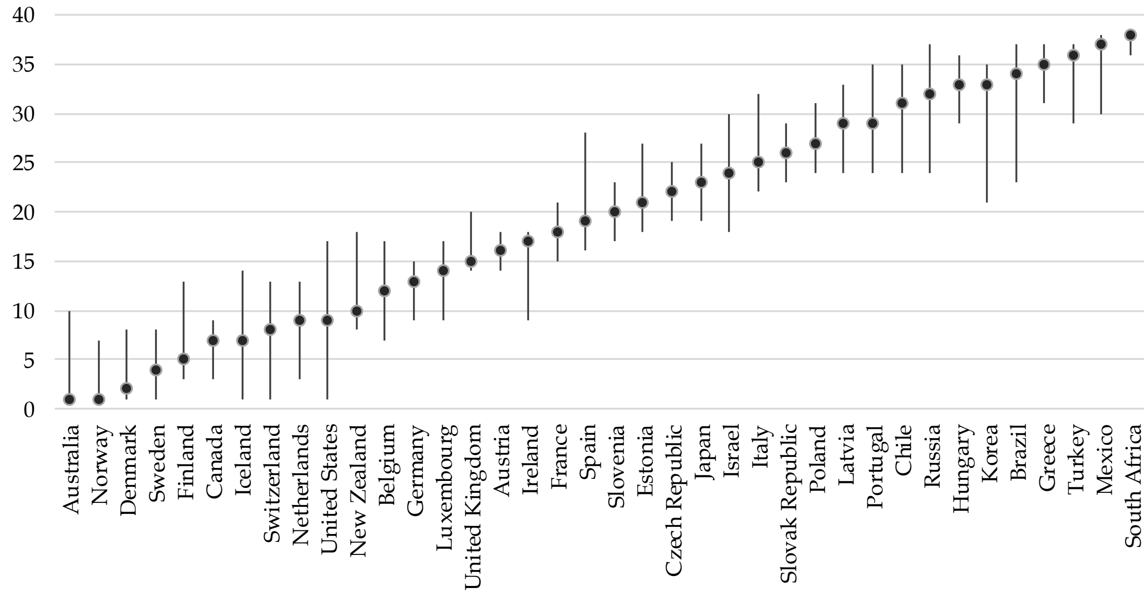

Figure 1: Minimum, maximum and mode of potential ranks by country

On the one hand, only South Africa and Austria have rather fixed ranks, regardless of how the weights are structured. On the other hand, the United States, Brazil and Korea have the chance to gain or lose considerably by a well-established restructuring of the weighting scheme. Kasparian and Rolland (2012) proceeded by looking at the probability of the ranks from a purely mathematical approach. However, subjective opinions or even professional assumptions about the optimal weighting scheme might largely differ from the mathematical chances. So if the question is, say, whether a government can tune BLI to display an order in which the country they represent can get the best possible rank, the answered is “yes” in almost every case (considering the continuous ratio scale of the weights). The answer would only be a real “no” if all dimensions would have completely identical normalized values. If this is not the case, a properly worked out weight set can push the final BLI into the direction of the strongest dimension (or into the direction of the weakest). One might have the feeling, that giving the freedom in the weighting structure creates a similar effect as the geometric mean. Namely a more stable BLI can be achieved if the dimension values are more alike. This statement is supported by the results, as the range of the possible ranks show strong positive correlation ($r=.911$; $p<.001$) with the standard deviation of the dimension values. However a stable BLI does not guarantee a stable position at all, as the same stable score might have higher/lower rank among the countries. According to the analysis, significant negative relationship ($r=-0.482$; $p=.002$) exists between the coefficient of variation (CV) of the dimension values and the CV of the possible ranks.

Based on the results of the empirical analysis, several important inferences can be drawn:

The “freedom” in creating a weighting scheme can carry risk and allows many different orders, which does not reflect or communicate transparency or soundness. It gives the users plenty of rope to manipulate and misinterpret the results. (Mizobuchi, H. (2014) offers the “benefit of the doubt” approach to set final weights to each dimension.)

The selection of the proper weighting scheme in case of this specific indicator puts high responsibility in the hands of the creators. Justified weighting system is to be applied, as the rank of many countries highly depends on it.

As there is no single-best approach, researchers should endeavor to reach consensus by inviting a wide range of potential users of the CI.

It is also important in how the weights are chosen to invite subjective opinions (however not limited to six, integer categories), as the weights will determine the hierarchy of the countries. Well-being is a phenomenon which affects the individuals directly, so their preferences are, indeed, relevant. If we consider the individual or household level data, weighting and aggregation at this lower level can form a possible solution as the basic method in the creation of the overall measure. In this case, the chance of using different aggregation levels (e.g.: county, region) is also given. However, the application of this method is only possible if we work with variables that make sense from the perspectives of the individuals. Another obstacle in this individual level evaluation is the potential lack of interest of most citizens to participate in such surveys.

Conclusions

BLI has many pros and cons. It has a well-prepared theoretical background and collects many important and harmonized variables about the OECD countries. The main idea was to give citizens a chance to create "their own" BLI that reflects their personal preferences. However, the limited range of the weights does not allow to see a clear picture of the preferences, added to the fact that the dimension set pre-defines the hierarchy of the countries within this framework. The "How's Life?" report partially compensates for these deficiencies.

If we consider complete freedom in the determination of the weighting system, it generates different orders and creates a risk of misuse and of misinterpretation. The methodology of BLI did not take and simply passed the responsibility to make decisions about the weighting scheme onto the citizens, while the clear aim of the use of BLI is also questionable.

Developing any CI is a very complicated challenge. A well-defined theoretical framework is essential, and so is a transparent and reliable methodology. The description of the clear objectives and of the intended use of the CI is another crucial element. This can guarantee the application of the proper procedure. As CIs are meant to measure unmeasurable phenomena, there will never be a best, widely accepted concept. However, the consensus of a wide range of potential users might result in the overall adoption of the concept.

References

Boarini, R. Comola, M. Smith, C. Manchin, R. de Keulenaer, F. (2012). *What Makes for a Better Life?: The Determinants of Subjective Well-Being in OECD Countries – Evidence from the Gallup World Poll OECD Statistics Working Papers*, No. 2012/03, Paris: OECD Publishing

Boarini, R. (2011). *Designing Your Better Life Index from a methodological perspective* http://wikiprogress.org/designing-your-better-life-index-from-a-methodological-perspective/ Cited 15 Dec 2017

Decancq, K. (2017). *Measuring Multidimensional Inequality in the OECD Member Countries with a Distribution-Sensitive Better Life Index* Social Indicators Research. Volume 131, Issue 3, pp 1057–1086

Freudenberg, M. (2013). *Composite Indicators of Country Performance: A Critical Assessment* OECD Science, Technology and Industry Working Papers. 16. Paris: OECD Publishing

Kasparian, J. and Rolland, A. (2012). *OECD's 'Better Life Index': can any country be well ranked?* Journal of Applied Statistics 39(10), pp. 2223–2230.

Mizobuchi, H. (2014): *Measuring World Better Life Frontier: A Composite Indicator for OECD Better Life Index* Social Indicators Research 118(3), pp. 987–1007.

Maslow, A. H. (1987). *Motivation and personality (3rd ed.)* Delhi, India: Pearson Education.

OECD (2008). *Handbook on Constructing Composite Indicators – Methodology and User Guide* OECD 158 p.

OECD (2017) http://stats.oecd.org/Index.aspx?DataSetCode=BLI Cited 5 Jan 2018 von Reumont, L. Schöb, R. and Hetschko, C. (2017). *Embedding Effects in the OECD Better Life Index*. Beiträge zur Jahrestagung des Vereins für Socialpolitik 2017: Alternative Geld- und Finanzarchitekturen - Session: Political Economy II, No. E20-V1

Saisana M. Saltelli A. and Tarantola S. (2005). *Uncertainty and sensitivity analysis techniques as tools for the quality assessment of composite indicators* Journal of the Royal Statistical Society Series A vol. 168, issue 2, 307-323.

Saltelli, A. (2007). *Composite indicators between analysis and advocacy* Social Indicators Research, 81(1), 65-77.

Stiglitz, J. E., Sen, A., Fitoussi, J-P. (2009). *Report by the Commission on the Measurement of Economic Performance and Social Progress*

https://www.uio.no/studier/emner/sv/oekonomi/ECON4270/h09/Report Cited 15 Oct 2017

UK preferential international trade after 23 June 2016

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Key words
Preferential Trade, EU, Lesser Developed Countries, 23 June 2016, UK Importers.

Abstract

The preferential international trade agreements are currently processed by the EU to enhanced trade with Lesser Developed countries. The EU negotiates these agreements over many years and have a Generalised System of Preference (GSP) committee in place, which oversees the current GSP process.

Now the situation is changing as the UK has voted to come out of the EU on the 23 June 2016. So how is this going to affect the UK importers? UK Importers are concerned if trade agreements and preference agreements can be renegotiated and how long will it take to for this process to be completed. The impact could be a large rise in cost of manufacture and retail goods which may have to be passed onto the end consumer. Research has been undertaken reviewing interviewing 9 leading UK importers, UK government white papers and the UK House of Lords papers to establish the possibilities the UK are currently considering in relation to how it is going to negotiate its trade policy with the EU in relation to after it leave the EU, in particular Non-EU trade.

Introduction

Since the Brexit vote on 23 June 2016 the UK has been negotiating how to leave the EU and with forty six years of being a member of the EU the UK has incorporated the EU law and trade policies, which have to be separated from the EU when it leaves in March 2019. This is only two of the many EU policies which have to be reformed. This paper considers the continuing role of GSP and if the UK will utilize the preference after it leaves the EU.

Since 1971, the European Union has encouraged trade with developing countries, (Brenton and Machin, 2002). The main mechanism used to facilitate trade is to lower importation tariffs at the point of entry into the EU. The discount system is called the Generalised System of Preferences (GSP). Its application makes goods supplied by lesser developed countries (LDCs), cheaper and hence more attractive to EU importers. GSP was first implemented by the EU in 1971. It is a nonreciprocal trade programme. It is reviewed and renewed every ten years, (McQueen, 2007) The EU has the ability of withdrawing preferences when the recipient's exports have increased, (Őzden and Reinhardt, 2005).

With the globalisation of trade there is more opportunity for EU importers to expand their supply chain across the globe. The availability of the GSP scheme should in principle enhance this trade further. A number of manufacturers have factories overseas and import completed components to the EU for further processing or for the retail market. Brenton (2003), found that the greater fragmentations of the supply chain has made it more difficult to comply with 'rules of origin'. This constrains LDCs manufactured from engaging in the global production networks.

Due to the globalisation of trade the UK currently is part of the global supply chain with a number of multinational companies trading with the UK and importing/exporting goods to Non EU countries. The EU GSP currently allows Lesser Developed Countries (LDC) to import to the UK with a reduction of tariff, normally to zero. However, there is a concern that if the preference is not continued after the UK leaves the EU and the UK has to start from scratch with its GSP negotiations, this could take between 3 to 4 years, that these goods will have to revert to the World Trade

Organisation (WTO) tariff. This could see goods, in particular retail clothing having a rise in cost from zero to 12% of value after March 2019 when it leaves the EU.

Due to the fact that Brexit is current, the paper has been written to highlight the many issues that could affect GSP and how GSP could become instrumental within the UK trade policy as a temporary trade agreement while the free trade agreements are negotiated.

The structure of the paper takes the form of a literature review, considering the issues academics have raised with regard to the current EU preference, then there is a discussion section highlighting the opportunities the UK government could incorporate if they undertake GSP. The research for the discussion relates to 9 semi-structured interviews with leading UK importers. The current situation in relation to the UK government and Europe with regards to Non-EU trade is considered leading to an overall conclusion.

Literature Review

There are aspects of the Generalised System of Preference that have provided difficulty to the importers to utilize the preference. The county of origin rule, graduation and general administration form some of the main issues concerning the application of the GSP. The literature review considers the academic research undertaken within these areas, highlighting the main problems that importers/exporters have when applying GSP. At the time of writing the UK is still a part of the EU and the issues highlighted are within the EU GSP which still applies to the UK.

2.1 Country of Origin

For a number of years proving the country of origin has been an issue for both the importers and the LDC exporters. It has been suggested that the rules of origin had actually suppress trade rather than increase it. In particular in relation to the fractionalization of production which is not only occurring between the EU and the LCDs (Cadot, et al. 2006),but the LCDs are also are now fractionalizing manufacture. As one LCD is coming out of GSP, manufacturers in the LCD will actively develop manufacture in another LCD which will continue with GSP and offer this to the EU importer, in order to maintain low cost. Therefore it is more difficult to follow the origin of goods included in the process of this type of supply chain. There is a cost to the LDC as they have to install compliance. However, the EU importer has to prove to the EU authorities that the all the goods supplied have complied with the rules of origin (RoO). Under the 2017 EU GSP reforms the responsibility is clearly on the EU importer to insure that contractual agreements between them and the LDC supplier to have clear contractual agreements between the importer and exporter. It is the importer that will be penalized for non-compliance. If there is an issue with non-compliance, import duties will be levied against the EU importer, retrospectively for three years after the initial importation. Also the importer will face additional penalties for any false origin claims. Therefore if the importer has any doubt of origin they should not claim the preference. This defeats the overall objective of the GSP and the EU importer may as well import from another developed country and pay the import duty as normal, as the risk of non-compliance becomes too high. Naumann, (2012). This is not a new issue, as Benton and Machin (2002) suggested the Country of Origin status was an issue, as the importers had to ensure that all rules are fulfilled when importing preference goods under GSP.

There is an element of a trade barrier being instigated when using the RoO, and the under-utilisation of the preference will restrict exports from the LDCs, Brenton, (2003). Brenton and Machin (2002) and Candau, Fontagne and Jean (2004) have evidenced that the Country of Origin Rules used by the EU in many cases have resulted in importers just paying the fully import duty rather than the GSP reduced tariff.

2.2 Graduation Issues

As an LDC economy improves the GSP is removed as it can provide an advantage on global trade. The GSP can be reduced over a period of time, in stages, to allow the LDC to adjust to their new standing in the global economy. This is known as graduation. Hoekman and Ozden, (2006). The graduation from a GSP scheme ensures that the GSP is successful in its function and provides a support to the developing economies and the EU views graduation as an important element of this. Townsend, (2008).

However, Ozden and Reinhardt (2005) considered that as GSP is not within the GATT legal system, the preferences are not protected and can be changed or cancelled at any time. The EU GSP committee can alter the GSP allocation. The GATT membership approved GSP with an 'enabling clause'. Therefore the GSP is not held within the usual legal constraints and Countries are able to provide and adjust their schemes 'as they seem fit'. Hudec, (1987); Jackson, (1997). Currently the EU GSP scheme protects the EU producer by allowing the preference to be suspended or graduated. This has been an issue with the United Nations and at the United Nations Conference on Trade and Development (UNCTAD), it was highlighted and argued that the type of graduation protects producers in the importing countries. Irish,(2007).

2.3 Knowledge and Administration of GSP

The importers have to be compliant with the various rules and regulations when applying GSP. Country of origin is the main complex regulation, however, the importer has to ensure that the GSP certificate is original and not a fake. The GSP forms A must meet the following requirements:-

size
weight of paper
layout
background - which must consist of a green (shade not specified) guilloche pattern.

A number of countries are known to have issues with the GSP form A for example:- Argentina, India, Sri Lanka and Uganda. H M Revenue and Customs (2005),

Also they have to ensure that the supplier is compliant with the Country of Origin rule, which can be very difficult to ascertain. UK H M revenue and Customs will check for this compliance and if the importer is unable to produce the correct administration they are fined. Therefore companies will complete everything to the best of their knowledge, however, they may not be aware of some of the documentation and therefore find themselves liable to the H M Revenue and Customs fines. When it was H M Customs and Excise training was provided to non-compliant companies, allowing for lack of knowledge. However, now that H M Revenue and Customs are in place, the fines are allocated, even when companies have to their knowledge covered the required administration. H M Revenue and Customs state that all paperwork for imports should be kept for 3 years. If Country of Origin cannot be proved then full duty will become payable. H M Revenue & Customs (2013). Brenton and Machin (2002) highlighted that the burden of administrative costs on companies proving origin is an issue, as there is the cost in relation to proving the origin and to maintain the administrative systems to ensure consistency.

Discussion

Currently there are many issues in relation to why importers are not utilizing the EU Generalised System of Preference. However, the vote on 23 June 2016 to leave the EU does now allow an opportunity for the UK to update the preference and could increase the utilization from the smaller and medium size UK companies.

Opportunities

Currently the country of origin rules are very complicated and 67 percent of the interviewees stated that UK importers can be overwhelmed with the administration as well as the cost of keeping up with the knowledge base to be able to comply with all the regulations. Rather than help to educate companies, HM Revenue and Customs are wanting to charge the full duty, up to three years retrospectively. There could be an opportunity here for H M Revenue and Customs to be able to engage more with the smaller/medium size companies to enable them to benefit from the reduction in import tariffs. This will provide more income for these companies, which in turn, allows for companies to develop their business and increase their profitability, thus being able to pay more corporation tax as well as increase their employees. As small/medium sized companies add the majority of economic benefit to the UK this would also help to regenerate the UK economy. Therefore if the country of origin rules are more accessible for all importers not just the large companies who are able to afford the compliance the UK economy would benefit.

It will not just be the importers that could benefit as it would allow more trade to take place with LDC and therefore be able to be more in compliant with the WTO mission statement. "reduce poverty through trade". The policy makers need to consider carefully how to apply these rules. Do they just want the current system to apply and in turn have many importers not using the system due to its complex application? Or will they take measures to allow smaller and medium businesses to be able to develop trade with LDC.

Currently companies have little influence over the graduation process being applied and as to which commodity lines are being cut from preference back to full import tariff. GSP policy currently is applied in Brussels and the UK importers feel remote from this process. The UK policy makers do have an opportunity to engage the UK importers more directly with the graduation process and allow them to be consulted within the withdrawal process. So will there be an opportunity for company consultation and also for more smaller/medium sized companies to be involved? If importers did not feel so removed from this process they may be encouraged to utilize the preference more. Stevens & Kennan (2016), suggested that the by the UK having a wholly new GSP scheme allowing the continuation of trade after Brexit, it would allow the opportunity of developing a more friendly UK trade policy. The House of Lords (2017), further acknowledged while a new GSP would take time to implement, it would take less time than other trade agreements as there is will be no external negotiations, as countries can decide if they want to accept the GSP scheme and its framework. This places the GSP entirely under the UK's control. The UK therefore is able to consider the above opportunities within the GSP framework. The House of Lords (2017).

Current Situation

29 March 2017, Article 50 is triggered.
29 March 2019, UK leaves the EU.

There is uncertainty at the moment as the UK has to still declare to the EU the sort of relationship the UK wants with the EU after it leaves.

Michel Barnier European Chief Negotiator, BBC, (2018) gave a speech on 9 January 2018 highlighting the current situation.

With regards to trade the UK has declared it wants impendence to be able to negotiate its own international agreements and therefore it wishes to leave the EU customs union. It is possible that this will trigger the EU to form trade barriers with the UK and goods exported to the EU will require documentation to be checked, as well as, tariffs being applied when crossing the EU boarders. BBC (2018).

A transition period has been requested by the UK and the commission of 27 countries have preliminary agree to a 21 month period from the UK withdrawal to 31 December 2020.

UK government is currently considering its options with how it approaches its trade agreement with the EU.

The UK had GSP as part of its trade policy in 1971 and did not become an EU member until 1973. Therefore the UK already has had GSP as part of its trade law and this could be utilized as a temporary preference while the main trade agreements are negotiated.

Penalties could be reduced for UK business while encouragement for trading more effectively could be introduced. After all an increase in trade = increase in profits = increase in tax revenue.

This would be very effective with regards to making the preference more accessible for smaller/medium size business. Also it will increase exports for LDCs.

However, there is the issue that the exporters will only export to the EU as this has more benefit due to more countries being accessible. So if there is too much difference then this would be an issue and therefore needs to be considered. Options to try and remain comparable with the EU system will make the UK easier to trade with but will not necessarily allow improvements to be made, or to make it more UK defined, but it will have to be still accessible for the LDC as well as, the importers. House of Lords (2017) suggested that if a transitional period is agreed, the UK government could negotiate access to the EU's preferential trade agreements with third countries.

100% of the interviewees stated that UK importers business is finding it difficult to plan ahead and implement business strategy moving forward. In July 2017 the Institute of Directors voiced concern that businesses are considering contingency plans in relation to setting subsidiaries within other EU countries and are postponing any large UK investment projects due to the uncertainty of Brexit, with an estimation of 11 percent acting already according to a recent survey carried out by the Institute. Wallace (2017). This theme has continued throughout 2017, in November 2017 the following was reported. Due to the uncertainty the Confederation of British Industry, has predicted that 60% of its members are already putting contingency plans in place if the uncertainty continues until March 2019. The Confederation also stated that 10% of firms are already moving parts of their business to other countries to protect their supply chains. This will help to mitigate the prospect of the UK being subject to tariffs or border controls. Inman, (2017). However, this is not just within the business community but also there are similar views within the financial sector, as UBS surveyed senior figures in 1,200 major corporations across the Eurozone, this has resulted in just under half will relocate British staff out of the UK into the Eurozone. Martin, (2017).

Current Business Issues

There are a number of issues that UK Businesses have concerns with regard to Brexit and how the UK overseas trade moves forward. The interviewees regarding this matter, had the following concerns:-

Number of trade agreements will be negotiated and who with?

EU Custom's law and its effects for EU and non-EU trade.

Knowledge of the transitional years, nature of negotiations that are going to take place.

UK business survival within the transitional years

Implementation of Article 50

Article 50 has been activated and the UK will leave the EU on 29 March 2019. This allows a 2 years transitional period before the UK comes fully out of the EU. Currently there is a lot of negotiation being done at ministerial level to try and agree the progression of policy and therefore to enable the best possible solution for the EU.

100% of the interviewees express the argument that this has a negative impact on some UK businesses as they are unable to plan ahead due to the unknown situation. Many UK businesses trade with countries that currently have trade agreements in place and therefore, these agreements could be at risk when the UK breaks away from the EU. However, the UK government are currently negotiating hard to try and allow the UK to continue to have access to the EU trade agreements, by transferring the trade agreements from the EU and installing them in the UK law, which is the most simplistic approach. However, at the moment this is in the air as there are many complicated aspects which have to be considered before this can really be solution. Currently UK businesses in a state of flux at the moment and unable to complete their business planning for the next 5 years but, are just running on a year by year basis until this is firmly resolved.

Number of Trade Agreements

56% of the interviewees raised this has an issue because the EU over a number of years have negotiated and re-negotiated many trade agreements. These agreements take many years to negotiate and are done so by a very experience team within the EU. As the UK has not had to negotiate on its own since joining the EU in 1973, the UK will have to negotiate a large number of trade agreements if the EU decides not to allow the UK to incorporate the EU trade agreements and then develop them into UK law over time.

There is the issue of Countries not wanting to trade with the UK now that article 50 has been put in place as they will see that the EU will hold a larger export market and therefore will be negotiating with the EU first. The EU has directed the UK that they are not able to start negotiating to entering to free trade agreements with Non-EU countries until after March 2019. BBC, (2018).

EU Custom's law

56% of the importers interviewed have invested a lot of time and training in becoming compliant with the EU customs law which is still going through is transitional phase and should be finalised by 2020. This has taken a number of years for the EU to get to this level of harmonisation and has been a rolling program incorporated by many UK businesses. No customs law has been amended in the UK since the UK joined the Customs union in 1993. The House of Lords (2017), recommended to the UK Government to negotiate the continuation of the Authorised Economic Operator system will lower the cost of UK businesses with regards to customs checks. Along with this recommendation the House of Lords suggested that the UK will have difficulty in continuing access to the EU's free trade agreements, unless the UK negotiates with the EU for their current free trade agreements to be transferred into UK trade law when it leaves.

Survival within the transitional years

Risk

Businesses feel there is a real risk that Custom laws, trade agreements and GSP that are in place within the EU will be lost along with trade uncertainty. Therefore the big issue is that the 2 years grace after Article 50 is too short and it could be 5 to 10 years before business can trade with certainty again. 78% of the interviewees stated that the 2 years were too short. However, some businesses are currently booming due to the weak pound and therefore exports have increase. So there are winners and losers in this situation.

Businesses hoped that when the Article 50 of the Lisbon Treaty 50 was evoked then at least it will start to become clear as to how trade agreements and preferential trade agreements will be introduced. However, since it was triggered on 29 March 2017 the uncertainly still exists. Will there continue to be preferential trade? If there is not then retail value of goods to the end consumer will rise considerably as import tariffs are introduced. Also the impact of increased expenditure on manufactured goods due to the rise in import costs on parts.

The UK has however, got an opportunity to increase trade with Non-EU markets, currently the EU has free trade agreements negotiation with US, Japan, India, China, Australia and New Zealand, but as yet they are complete legal ratification. The UK could negotiate for its own terms rather than having to consider 27 other countries and become a significate country within the global market. House of Lords (2017).

Conclusion

This paper was written to highlight the current issues in relation to GSP with respect to the future UK trade after it leaves the EU. There is academic literature available which raises the issues that currently the EU GSP scheme has developed over the last forty six years. The UK is in a very unusual situation by leaving the EU and it can consider developing its own GSP and therefore there is a good opportunity for it to improve the scheme and thus enabling LDCs to continue or even increase trade to the UK.

The UK is in a unique position as by leaving the EU it can negotiate its own trade agreements and become an independent global economy. However, it is going to take time for the UK to establish itself after leaving the EU. Currently there is a great deal of uncertainty with regards to the UK's future relationship with the EU. Also the UK has to disentwine itself from EU legislation which is complicated and time consuming. The two years the UK has to negotiate its exit is proving to be difficult and a transition period has been agreed to 31 December 2020, however, even this will be a time constraint.

Limitations and notes for further research

The main limitation for this research is due to the UK currently within the transition of leaving the EU and the level of uncertainty, does provide a limitation on how the preferential trade will be treated within this process. However, because it is a unique situation it is important to document at various points in the process, the issues that UK businesses are currently having. This will provide evidence for further research when evaluating the UK preferential trade after the UK has left the EU and how UK business has incorporated leaving the EU.

References

BBC news 27 August 2016, http://www.bbc.co.uk/news/uk-37203678

BBC News, (2018), Trade barriers 'unavoidable' outside customs union, says EU's Barnier, *BBC News – UK Politics*, 5 February 2018

Brenton, P., (2003), Integrating the Least Developed Countries into the World Trading System, *The Current Impact of EU Preferences under Everything but Arms*, Policy Research Working Paper 3018.

Brenton, P. and Manchin, M. (2002), Making EU Trade Agreements Work The Role of Rules of Origin, *CEPS Working Document No 183.*

Cadot, O., De Melo J., and Portugal-P'erez, A., (2006), Rules of Origin for preferential Trading Arrangements, Implications for the ASEAN Free Trade Area of EU and U.S. Experience, *Working Bank Policy Research Working Paper 4016.*

Candau, F., Fontagne, L., and Jean, S., (2004), The utilisation rate of preferences in the EU. In: *7th Global Economic Analysis Conference, Washington, D.C. 17 – 19.*

H M Revenue & Customs (2013), Rules of origin for imported and exported goods, *Import and export procedures and Import and export,* June 2013.

H M Revenue and Customs (2005) Tariff preference: proofs of origin (GSP forms A or EUR1 movement certificates), *Business Tax – guidance, Customs Information Paper 76 (2013)*: tariff preference - revisions to GSP

Hoekman, B., and Ozden, C., (eds) (2006), *Trade Preferences and Differential Treatment of Developing Countries, Critical Perspectives on the Global Trading System and the WTO*, Vol. 11., Cheltenham: Edward Elgar Publishing Limited.

House of Lords, (2017), Brexit: trade in goods, *House of Lords, European Union Committee,* 16th Report of Session 2016–17, 14 March 2017.

Hudec, R.E., (1987), *Developing Countries in the GATT Legal System*, Guildford, Hampshire: Gower Publishing Company Ltd.

Inman, P., (2017), EU firms warn of deserting UK suppliers after Brexit; British exporters could lose billions after two-thirds of EU firms saying they expect to move part of supply chain out of UK , *The Guardian,* Mon 6 Nov 2017 06.01 GMT, Last modified on Mon 27 Nov 2017 14.16 GMT

Irish, M., (2007), GSP Tariffs and Conditionality: A Comment on EC-Preferences, *Journal of World Trade;* (41), (4), 683-698.

Jackson, J.H., (1997), *The World Trading System: Law and Policy of International Economic Relations*, 2nd ed., Cambridge, MA: MIT Press Ltd.

McQueen, M., (2007), Are EU Non-Reciprocal Trade Preferences Pass`e?, *Intereconomics,* (4), 205-218.
Martin, W., (2017), Swiss banking giant, UBS SURVEY: 15% of Eurozone companies plan to move everyone out of the UK after Brexit, *Business insider*, Sep. 21, 2017, 10:13 AM.
Naumann, E., (2012), The EU Generalised System of Preferences: An overview of proposed reforms, *tralac trade law centre, working paper No. D12WP06/2012*.
Ozden, C. and Reinhardt, E., (2005), Political Economy, The Perversity of preferences: GSP and developing country trade policies, 1976/2000. In: Hoekman, B., and Ozden, C., (eds.) (2006), *Trade Preferences and Differential Treatment of Developing Countries, Critical Perspectives on the Global Trading System and the WTO*, Vol. 11., Cheltenham: Edward Elgar Publishing Limited.
Stevens C., & Kennan J., (2016), Trade Implications of Brexit for Commonwealth Developing Countries, *Commonwealth Trade Hot Topics,* Issue 133, 2016.
Townsend, I., 2008, EU trade preferences for developing countries: the GSP and Everything But Arms', *House of Commons Library, SN/EP/3369, Section Economic Policy & Statistics.*
Wallace, T., (2017), Act now to stop companies moving jobs for Brexit, businesses urge Government, *The Telegraph,* 20 July 2017 • 12:01am

Bibliography

Augier, P., Gasiorek, M. and Lai-Tong, C.(2005), The Impact of Rules of Origin On Trade Flows, *Economic Policy,* 20, (43), 567 – 624
Commission of The European Communities, (2004), Developing counties, international trade and sustainable development: the function of the Community's generalised system of preferences (GSP) for the ten-year period from 2006 to 2015, *Communication from the commission to the council, the European parliament and the European Economic and Social Committee,* Brussels 7.7.2004 COM (2004) 461 final.
English R., (2013), The Element Of Risk In Relation To Importing From Lesser Developed Countries Using Preferential Tariffs, In: Crowther, D., Aras G., (eds). (2013), *Developments in Corporate Governance and Responsibility, The Governance of Risk,* Volume 5, Bingley, West Yorkshire: Emerald Group Publishing Limited.
Hoekman, B., Martin, W. J. and Primo Braga, C. A., (2008), Quantifying the Value of Preferences and Potential Erosion Losses, *World Bank.*
Manchin, M., (2006), Preference Utilisation and Tariff Reduction in EU Imports from ACP Countries, *The World Economy.*
Morsing, M., and Perrini, F., (2009), CSR in SMEs: do SMEs matter for the CSR agenda? *Business Ethics: A European Review,* (18) (1).

Scientific management: its inapplicability to contemporary management challenges

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Frederick Taylor, Taylorism, scientific management

Abstract

This paper contained a critique of the management approaches and philosophies of Frederick Taylor. The critique was based on four claims, namely that (a) The tension between management and labor unions is no longer primarily based in productivity and what Taylor referred to as 'soldiering'; (b) the insights of Taylorism have already been applied to business process management; (c) machines have addressed the problem of soldiering; and (d) the next frontier of organizational efficiency and management excellence is the productivity of knowledge, not the productivity of manual labor. Evidence was presented for each of these claims, with the purpose of analysis being to compare and contrast the kinds of approaches Taylor suggests in Principles of Scientific Management to the actual challenges faced by contemporary managers in contemporary organizational settings.

Introduction

At the beginning of the twentieth century, the American management theorist Frederick Winslow Taylor published (Taylor, 2014) the seminal *Principles of Scientific Management*, perhaps the first attempt to apply scientific principles to organizational processes as well as management. The purpose of this paper is to consider the relevance of Taylor's approach and theory to cotemporary management challenges. The hypothesis defended in the paper is that Taylorism is no longer relevant to contemporary management, for the following reasons: (a) The tension between management and labor unions is no longer primarily based in productivity and what Taylor referred to as 'soldiering'; (b) the insights of Taylorism have already been applied to business process management; (c) machines have addressed the problem of soldiering; and (d) the next frontier of organizational efficiency and management excellence is the productivity of knowledge, not the productivity of manual labor. Evidence for each of these claims has been presented in the body of the paper, after which the conclusion reiterate the argument that Taylor's relevance is more historical than contemporary.

A Critique of Taylorism's Contemporarily Applicability

Taylor's *Principles of Scientific Management* was based primarily on the author's experience as a management consultant (a term that did not exist at the time, and that does not appear in Taylor's book, but that is nonetheless an appropriate description of his role) at the Bethlehem Steel Factory in Bethlehem, Pennsylvania (Taylor, 2014). At this era in American history, there were numerous obstacles to organizational efficiency and management excellence, and these obstacles provided the context in which Taylor made his contributions to the emerging science of management. Four such obstacles were: Clashes between management and unions, with unions often encouraging their members to work less hard at work, in the phenomenon known as 'soldering'; the absence of proper business management; the necessity of augmenting machine productivity with human productivity; and a de-emphasis of knowledge work in favor of manual work. As argued in the four sub-sections of this part of the paper, none of these concerns is particularly applicable to contemporary managers or organization. Thus, to apply the principles of Taylorism in contemporary settings would largely be fruitless, if not actively counterproductive, as argued in greater detail below.

Management and Unions

At the Bethlehem Steel Factory, when Winslow (2013) gathered the data and derived the insights that would subsequently come to form the core of *Principles of Scientific Management*, management was eager for its unionized workers to work as hard as possible, whereas the workers themselves wanted to work less hard. Winslow noted that, in many instances, workers 'soldiered,' that is, loafed or otherwise deprived management of their full effort. In this context, Winslow's empowerment of management was designed partly to give management a stronger hand in its dealings with unions. The reason for Winslow's motivation to empower management can be adduced from a closer consideration of the historical dynamics of labor unionism in early twentieth-century America and from a contrast of this state of affairs to current union membership levels.

Principles of Scientific Management was published at the height of labor union power in the United States (Allen, 1988; Belman & Voos, 2006; Canak & Miller, 1990; Clawson & Clawson, 1999; Dickens & Leonard, 1985; Fichtenbaum, 2011; Moore & Newman, 1988). However, in contemporary times, unions are largely irrelevant, representing a radical change from Taylor's highly unionized times. Figure 1 below, an original figure based on tabular data (Unionstats.com, 2015), indicates that only around 1 in 10 American workers is unionized, and the downward trend in union membership suggests that, in the future, union membership will be even smaller. In the contemporary setting, the relationship between managers and employees is not governed by the union dynamics that prevailed in Winslow's day—dynamics that were often adversarial to management in terms of 'soldiering'—but by more direct relations between managers and individual workers. For this reason alone, Winslow's adversarial approach, designed to empower management at the expense of unions, is of little relevance in contemporary organizational settings in the United States, which, as Figure 1 suggests, are unlikely to be unionized.

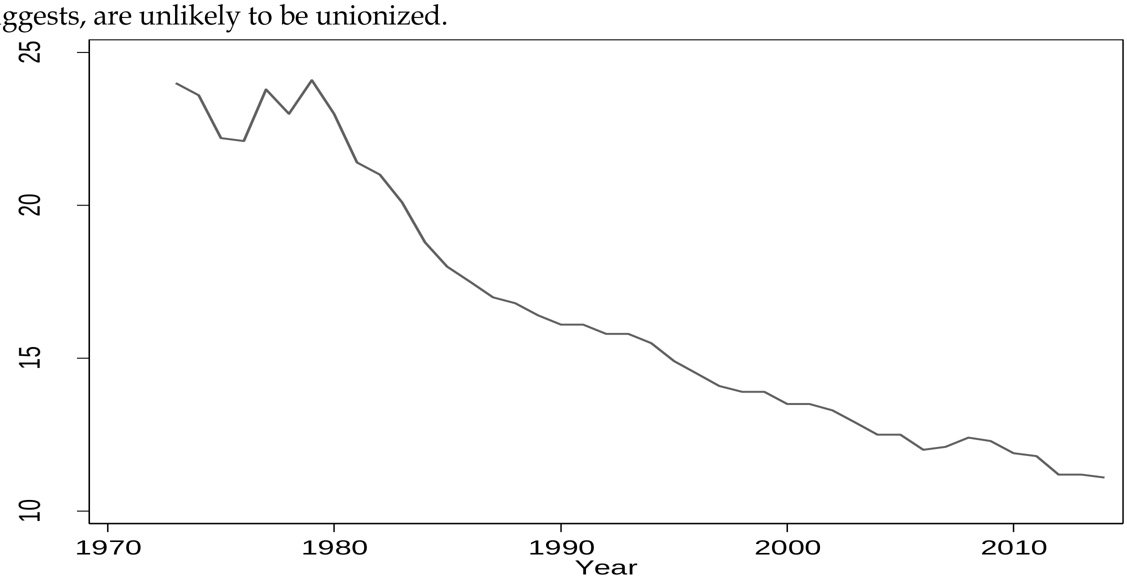

Figure 1. Decline in American union membership (all sectors, 1973-2014). *Note*: Original figure.

Business Process Management

Although many of these arguments in this study critique Taylorism for being ineffective or obsolete, as understood from the point of view of contemporary managers and organizational settings, there is at least one realm in which Taylorism succeeded, and continues to succeed, spectacularly: The realm of business process management. The core competency of business process management is to create a means of working that is scalable, efficient, and cheap (Bi, Davison, Kam,

& Smyrnios, 2013; Bintoro, Simatupang, Putro, & Hermawan, 2015; Worley & Lawler, 2010). Writing just a few years after the publication of *Principles of Scientific Management*, the automotive pioneer Henry Food word that "In our own work we have always found that, if our principles were right, the area over which they were applied did not matter….It has never made any difference with us whether we multiplied what we were doing by five or five hundred" (Ford, 2013, p. 225). This statement of Ford's is a perfect expression of business process management, and it is indebted to the intellectual and practical framework that Taylor created in *Principles of Scientific Management*.

In the realm of business process management, Taylorism succeeded so well that it made itself obsolete. In environments (Garson, 1989) ranging from fast-food restaurants to factories, generations of managers influenced by Taylorism created business processes that streamline work and reduce the element of human error—and, indeed, human choice—that so vexed Taylor himself (Taylor, 2013). Because business process management has succeeded so well as a discipline, it has both surpassed Taylor's initial, comparatively simpler vision of business process management and reduced the need for contemporary managers to reinvent the wheel. In this respect, therefore, an application of Taylorism in contemporary business process management would be redundant at best and actively destructive of existing systems at worst.

Automation

One of Taylor's most famous contributions to business efficiency was his calculation of the ideal shovel size at Bethlehem coal. Taylor found that, when shovels were designed to carry a maximum of 9 pounds, workers would be able to carry these shovels throughout the workday without getting unduly tired. When shovels were much larger than this size, then workers would either under-fill them—especially when they were 'soldiering'—or fill them completely, in which case they would soon get tired. Much of *Principles of Scientific Management* contains guidelines for managers to derive more work from laborers in this manner. These guidelines were important in Taylor's time, but, in the age of automation, are radically less important, at least to contemporary organizations.

In contemporary times, the vast majority of work described by Taylor in *Principles of Scientific Management* is conducted by machines, whether robots or machines with active human operators (Matthews et al., 2015; Maurizio Faccio, Kilic, & Durmusoglu, 2015; Rujirayanyong & Shi, 2006; von Suchodoletz et al., 2011). In this context, there is far less of a need than there was in Taylor's time to understand how to generate more productivity from manual laborers. The steady spread of automation means that Taylor's principles of [manual] worker management are largely obsolete.

Knowledge Work and Manual Work

The business theorist Peter Drucker noted (Drucker, 1998, 2014) that the main managerial and organizational challenge of the first half of the twentieth century that of mechanical productivity, whereas the challenge of the remainder of the century—a challenge that continues to exist in contemporary times—is that of mental productivity. The combination of automation, business process management, and the design of optimal physical environments—which are legacies of *Principles of Scientific Management*—successfully addressed the challenge of mechanical productivity. However, the challenge that remains to be addressed in that of knowledge productivity.

At organizations such as Dell and Toyota, simple ideas by line workers can, and have, saved their respective companies millions of dollars (Hitt, Ireland, & Hoskisson, 2009). In the contemporary economy, a good idea is worth far more than manual labor—which can be provided by machines in any case. Drucker (1998, 2014) argued that the main challenge contemporary managers faced was to create workplace environments and relationships that encouraged workers to make active, knowledge-based contributions to the organization. These contributions were, according to Drucker, the main drivers of competitive advantage in contemporary organizations, and the main task of contemporary managers was to understand the nature of motivation in a knowledge economy rather than in an economy based predominantly on manual labor.

Taylor (2013) never envisioned such a state of affairs, because, in his time, the nature of the economy was such that workers' contributions to organizational success were more limited. For a contemporary manager, the main challenge is not to find a way to squeeze more productivity out of a manual laborer, but, rather, to create a knowledge workplace in which workers of all kinds feel empowered and encouraged to suggest the kinds of ideas that save their organizations money, generate new markets, and, simply put, create the kind of competitive advantage that labor productivity alone cannot generate. In such an environment, *Principles of Scientific Management* is obsolete, because it has nothing to say on the topic of facilitating knowledge work and the knowledge economy. Rather, *Principles of Scientific Management* is a guide to micromanaging manual labor, an endeavor that is hardly likely to add value to a modern corporation.

Conclusion

The hypothesis defended in this study was that Taylorism is no longer of substantial relevance in organizational theory of practical management, for four reasons. First, the tension between management and labor unions is no longer primarily based in productivity and what Taylor referred to as 'soldiering.' Second, the insights of Taylorism have already been applied to business process management. Third, machines have addressed the problem of soldiering. Fourth, the next frontier of organizational efficiency and management excellence is the productivity of knowledge, not the productivity of manual labor. Collectively, these reasons suggest that Taylorism is of more historical than contemporary relevance.

References

Allen, S. G. (1988). Declining unionization in construction: The facts and the reasons. *Industrial & Labor Relations Review, 41*(3), 343-359.

Belman, D., & Voos, P. B. (2006). Union wages and union decline: Evidence from the construction industry. *Industrial & Labor Relations Review, 60*(1), 67-87.

Bi, R., Davison, R. M., Kam, B., & Smyrnios, K. X. (2013). Developing organizational agility through IT and supply chain capability. *Journal of Global Information Management, 21*(4), 38-55.

Bintoro, B. P. K., Simatupang, T. M., Putro, U. S., & Hermawan, P. (2015). Actors' interaction in the ERP implementation literature. *Business Process Management Journal, 21*(2), 222-249.

Canak, W., & Miller, B. (1990). Gumbo politics: Unions, business, and Louisiana right-to-work legislation. *Industrial & Labor Relations Review, 43*(2), 258-271.

Clawson, D., & Clawson, M. A. (1999). What has happened to the US labor movement? Union decline and renewal. *Annual Review of Sociology, 25*, 95-119.

Dickens, W. T., & Leonard, J. S. (1985). Accounting for the decline in union membership, 1950–1980. *Industrial & Labor Relations Review, 38*(3), 323-334.

Drucker, P. (1998). *Peter Drucker on the profession of management*. Cambridge, MA: Harvard Business Press.

Drucker, P. (2014). *People and performance*. New York, NY: Routledge.

Fichtenbaum, R. (2011). Do unions affect labor's share of income: Evidence using panel data. *American Journal of Economics and Sociology, 70*(3), 784-810.

Ford, H. (2013). *My life and work*. Toronto, Canada: CRC Press.

Garson, B. (1989). *The electronic sweatshop*. New York, NY: Penguin Books.

Hitt, M. A., Ireland, R. D., & Hoskisson, R. (2009). *Strategic management: Competitiveness and globalization*. Mason, OH: South-Western.

Matthews, J., Love, P. E., Heinemann, S., Chandler, R., Rumsey, C., & Olatunj, O. (2015). Real time progress management: Re-engineering processes for cloud-based BIM in construction. *Automation in Construction, 58*, 38-47.

Maurizio Faccio, D. Y. C., Dr, Kilic, H. S., & Durmusoglu, M. B. (2015). Advances in assembly line parts feeding policies: a literature review. *Assembly Automation, 35*(1), 57-68.
Moore, W. J., & Newman, R. J. (1988). A cross-section analysis of the postwar decline in American trade union membership. *Journal of Labor Research, 9*(2), 111-125.
Rujirayanyong, T., & Shi, J. J. (2006). A project-oriented data warehouse for construction. *Automation in Construction, 15*(6), 800-807.
Taylor, F. W. (2014). *The principles of scientific management*. New York, NY: Harper.
Unionstats.com. (2015). Union membership and coverage. Retrieved from http://www.unionstats.com/
von Suchodoletz, D., Rechert, K., Welte, R., van den Dobbelsteen, M., Roberts, B., van der Hoeven, J., & Schroder, J. (2011). Automation of flexible migration workflows. *International Journal of Digital Curation, 6*(1), 183-198.
Worley, C. G., & Lawler, E. E. (2010). Agility and organization design: a diagnostic framework. *Organizational Dynamics, 39*(2), 194-204.

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