Risk management and performance: a case study of credit risk management in commercial banks

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Abstract

Credit is one of the largest risks in any bank, whereas, many enterprises complain of lack of excessive high criteria which set by financial institutions such as commercial banks, resulting in huge losses due to bad loans. This study investigated the impact of credit risk management practices on the financial performance of Commercial Banks in Saudi Arabia. Three (3) research questions were raised alongside specific objectives, and three (3) null hypotheses were tested at 0.05 level of significance. Descriptive survey research design was adopted. Findings revealed that Saudi Commercial Banks engage in credit risk management practices to combat and avoid credit risks. As well it concluded that these banks embrace different approaches to risk screening and analysis before granting credit to clients to reduce loan losses. The major recommendation was that the regulatory institution of Saudi Arabia banks, which is SAMA, should intensify its monitoring skills of the commercial banks to ensure strict adherence granting credit by financial institutions.

1. Introduction

Financial institutions, especially commercial banks, play a very important role in a nation's economy. In a more conscience form, Harvey (2012) defined financial institutions as "enterprise such as a bank whose primary business and function is to collect money from the public and invest it in financial assets such as stocks and bonds, loans and mortgages, leases, and insurance policies". There are two exquisite examples of depository and non-depository financial institutions. For the purpose of this study, emphasis is laid on commercial banks as a key example of financial institution.

In any economy, commercial banks are main financial intermediaries. so, they consider as the main supplier of credit to corporate sectors and the household. They accept deposits and provide financial security to their customers. This is so because keeping physical cash at home or in a wallet could lead to loss due to theft or accidents, not to mention the loss of possible income from interest (*Brunner, 2004).*

The policy of commercial banks to make money results in the elastic credit system that is necessary for economic progress at relatively steady rate of growth. With increased pressure on banks to improve shareholders return banks have had to assume higher risk and at the same time, manage these risks to avoid losses (Saunders & Marcia, 2011). According to Perez (2014), commercial banks face eight types of risk, which are market risk, operational risk, liquidity risk, credit risk, business risk, reputational risk, systemic risk and moral hazard. Out of these eight risks, credit risk is one of the three major risks, while the other two are market risk and operational risk.

The risk management has the purpose and the scope of ensuring that the risk part of an investment Implemented in a controlled and understandable manner (Haim & Thierry, 2005). Basel Committee on Banking Supervision, (2006) encouraged the use of "know your customer" principal as a strategy to minimizing credit risk. Nonobjective decisions made by banks executives may result to insider leading or lending to personal friends, persons without superior financial knowledge or to meet personal agenda (Kithinji, 2010). An answer to the problem would be the usage of verified loaning systems and chiefly the measurable ones which are more objective (Karugu & Ntoiti, 2015).

Changes in credit risk may reflect changes in validity of the portfolio bank's loan, that may also impact the performance of the Bank (Weersainghe & Perera, 2013). In addition, Weersainghe & Perera, (2013) were of the view that varying profitability levels could be traced back to difference in credit risk as raised exposure to the risk is associated with the dropped profitability of the institution. According to Karugu & Ntoiti, (2015) empirical evidence supported the view of the presence of an inverse connection existing between credit risk and performance of financial institutions suggesting these institutions are performing high poorly when their loans are exposed to high risk. analyzing the financial performance of banks has been of large importance for academic research for decades (Al-Tamimi, 2010).

Ongore (2011) submitted that "performance of firms can be influenced by ownership identity". This could also be true of commercial banks. In Kenya for example, any failure in the financial sector of any country has enormous implications for economic growth. This is because commercial banks dominate the financial sector in any country. According to Oloo (2011), the Bank rewards shareholders with an adequate return on their investments due to excellent bank performance. However, the poor performance can lead to failures and increase in crisis. According to Nzongang and Atemnkeng in Olweny & Shipho (2011) a balanced portfolio theory is also an important addition to the importance of banking performance. It states that management overall policy decisions affect the portfolio structure of the bank, profits and the shareholders return profits. The theories above shown that bank performance is affected whether external or internal factors such as, include bank size, risk management capacity-management efficiency).

It is a fact that the Saudi economy is strongly connected to international economy. Hence, it is natural that the Saudi economy was affected by the financial crisis. The first reverse impact of the global financial crisis on the Saudi economy was in the financial market which has declined in past few years. The global financial crisis revealed the importance of banks' credit risk management in mitigating credit default risk as most banking problems have been caused by weaknesses in credit risk management that include high credit concentration, inadequate credit risk monitoring, ineffective credit risk measuring, poor credit risk rating, insufficient lending procedures, vulnerability to liquidity stresses and sensitivity to market fluctuations (Bis.org., 2017).

1.1 Research questions & objectives

In this period of global financial crisis, Saudi banks suffer from a high rate of default with adverse effects on banks' performance which requires investigating for a proper review of the policies of credit risk management. So, analyzing the effect of credit risk management on loan performance of Saudi Commercial Banks becomes essential for identifying the determinants of Saudi credit policies, core mechanisms through which Saudi Arabian banks minimize loan default and the impact of loan performance on the economy of Saudi Arabia.

The research questions are expressed through the following:

1. What are the determinants of credit risk policies of Saudi Commercial Banks?
2. What are the core mechanisms through which Saudi Arabian banks minimize loan default?
3. What is the impact of credit risk management practices on loan performance of Saudi Commercial Banks?

Based on research questions the following research hypotheses derive:

H01: There is no significant relationship between credit risk policies and loan performance of Saudi Arabia Commercial Banks

H02: There is no significant relationship between mechanisms to minimize loan default and loan performance of Saudi Arabia Commercial Banks.

H03: There is no statistically significant effect of credit risk management policies on loan performance of Saudi Commercial Banks.

The major objective of this study is to find the effect of credit risk management practices on the financial performance of commercial banks in Saudi Arabia. So, Specific objectives are:

1. To identify the determinants of credit risk policies of Saudi Commercial Banks
2. To identify core mechanisms through which Saudi Arabian banks minimize loan defaults.
3. To locate the impact of credit risk management practices on the performance of loans with Saudi banks.

1.2 Significance of the study

This research comes while most of the Saudi banks suffer from problems that are left behind by the credit risk in the period of financial crises in the world. It is hoped that the findings of this study would establish clearly the benefits derived by commercial banks and other financial institutions from various techniques adopted in managing credit risk by commercial banks surveyed. Findings of this study would. Moreover, reveal the importance of coordinating efforts that contribute to the goal of public financial institutions in order to minimize risks and maximize returns.

The study will provide bankers, employees and credit analysts with the appropriate knowledge to start and manage risk assets in a profitable manner with minimum losses for both regulated and unorganized companies in the companies and the medium market. Also, it will create a way to clearly understand the risks of the company and consumers that better understand the credit decisions of financial analysts. Moreover, will be useful to other researchers who may have a focus on understanding the concept of credit risk management.

2. Literature Review

2.1. Commercial Loan Theory

This study adopted the Commercial Loan Theory as used by Taiwoet et al., (2017). Commercial Loan Theory is the oldest banking theory, also called the real bills doctrine. it is stated that banks should only lend on short-term commercial paper and self-liquidation. According to Hosna et al., (2009), the commercial loan theory is geared to influence persuasively both the bank lending and the general economic activities. Strict adoption of this theory will reveal that it is expected to serve as a monetary supply to changes in aggregate economic activity.

Kargi (2011) posited that the strong tie to this conception is rather orthodox if consideration is given to the fact that at the time of the supremacy of the theory, there were little or no secondary reserve assets, which could have served as a liquidity buffer for the bank.

2.1.1 Conceptual framework of credit risk management

This study adapts the credit risk management framework by Watchira (2017) as shown in Figure 1. According to Wachira (2017), there are four independent variables that constitute credit risk management practices. The dependent variable is banks performance as measured by ratio of Non-performing loans to overall loans. The four independent variables directly affect the performance of the banks (Wachira, 2017). However, for the purpose of this study, emphasis is placed on impact of credit risk management practices in term of credit risk management strategies, and credit risk policies as independent variables (Figure 2).

Credit Risk Identification
- Past repayment records
- Computation of Loan ratios
- Credit Referencing

Credit Risk Measurement
- Estimate impact and frequency of each identified risk factor
- Credit scoring
- Use of 5 C's of credit

Credit Risk Monitoring
- Contact with customers
- Follow up customer a/c
- On-site visit
- Updating credit file

Credit Risk Control
- Use of covenants
- Use of collateral
- Credit rationing
- Loan securitization

Loan Performance of Commercial Banks
- Non-performing loans/Total loans ratio

Figure 1: Conceptual Framework Adapted from Wachira (2017)

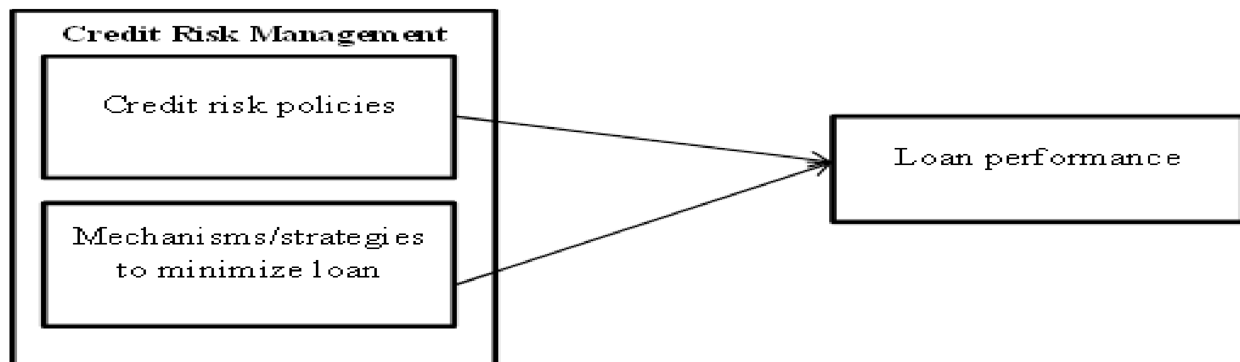

Figure 2: Self-constructed model of credit risk management framework Adapted from Wachira (2017)

2.1.2 Context and types of bank credit risks

Credit risk management practices have been defined as the identification, measurement and control of risks creating from possible non-payment of loans advanced to various clients (Kithinji, 2010). This definition by Kithinji corroborates Basel Committee on Banking Supervision (2006) and

Gastineau (1992 cited in Kargi, 2011) who submitted that Credit risk is the possibility of partial or total loss of the loan. The most important of these risks is bankruptcy or non-payment of a due obligation.

Heffernan (1996 cited in Kargi, 2011) also observed that credit risk is the risk that an asset or a loan becomes irrecoverable in the case of outright default, or the risk of delay in the servicing of the loan. The credit risk is that the original of the loan becomes non-refundable in the event of total default or risk of collision in the service of the loan, Therefore, the present value of the asset decreases, which reduces the liability of any bank. Credit risk is serious risk because decrease a few important clients can generate large losses.

The major component of risk management system which should be given special regard by the Top Management of any bank is credit risk. It is the important dimension of various risks inherent in a credit proposal, as it involves default of the principal itself (Cuthbertson & Nitzsche, 2003; Nelson & Schwedt 2006). Raghavan (2005) also wrote that credit risk consists of primarily two components: Quantity of risk, which is nothing but the outstanding loan balance as on the date of default and the Quality of risk, which is the severity of loss defined by Probability of Default as reduced by the recoveries that could be made in the event of default.

As stated by, Koch & MacDonald (2009), "banks' risks can be identified as six types: credit risk, liquidity risk, market risk, operational risk, reputation risk and legal risk". any of these risks could have harmful influence on the bank's market value, liabilities, probability and shareholder's equity. the bank is reduction its ability to meet current and future cash flows that are expected and unanticipated and that indicate liquidity risk (The Joint Forum, 2006). A similar type of bank risk is market risk. Market risk can be regarded as non-diversifiable risk. It is as a result of different factors which include difference in interest rate and the relative amount of currencies (Koch & MacDonald, 2009). In the same vein, Operational risks are linked to transaction processing, settlement and delivery of cash exchange transactions (Koch & MacDonald, 2009).

Reputation risks creating from negative opinions that may impact the profits of institutions. (Protiviti, 2013). Protiviti stressed further that reputational risk Indicates the low value of a financial institution's brand or inability to persuade. Legal risks typically occur in a financial contract that separates the legal effects of credit, counterparties and operational risks (Koch & MacDonald, 2009). In addition, Koch and MacDonald listed another type of bank risk as credit risk. Credit risk is the probability that the counterparties will default on loan transactions and derivative transactions (Koch & MacDonald, 2009).

2.2 Credit risk management in commercial banks

Acoording Nikolaidou & Vogiazas (2014) Credit risk management is a combination of coordinated functions and activities to monitor and guide the risks faced by the organization by including key risk management processes and processes in relation to the objectives of the organization. It is important to know that risk management practices are not developed and are designed to eliminate risks entirely but are aimed at controlling opportunities and risks that may lead to risks. in addition, Ross et al. (2008) find that risk management practices also ensure that financial institutions must have a strong and rational framework for making decisions through which to achieve the company's objectives.

On the other hand, García et al., (2013) find that efficient credit risk management practices are not successful in eliminating the human element in decision-making related to risk control. The focal point of risk management is mainly to reduce volatility in earnings and avoid large losses to financial institutions. Proper risk management measures are to identify, quantify and quantify risks, and then develop a risk management strategy (Van Gestel & Baesens, 2008).

Second, in the identification step, the measurement needs to measure the risks identified. In this step, statistical analysis is the necessary to measure risk. The third step in risk management is treatment). Accordingly, risk management is the key risks process by which managers meet these

needs, obtaining consistent and understandable measures, operating risks, identifying risks to be managed, methods, and procedures for monitoring the resulting risk position (Pyle, 1997).

Mwithi (2012) found that there was a positive correlation between credit risk assessment and management of microfinance institutions in Nyeri County. In his study, Simiyu (2008), The most of institutions use Credit Metrics to measure credit migration and the risk of default. The results of the Simiyu's study show that microfinance banks face the challenge of strict operational peregrination from the Kenyan central bank. Chege (2010), from the findings of his study concluded that credit risk management practices enhance profitability of the MFI.

Hahm (2004), conducted a pilot study on the exposure of interest rates and exchange rates of banking institutions in Korea before the crisis, the result of the study showed that Korean commercial credit Unions and merchant banking corporations Where largely exposed to both interest rate and exchange rate risks, and that the subsequent profitability of trade credit unions was strongly correlated with pre-crisis detection. Niinimaki (2004) shows in his paper entitled "The effects of competition on credit risk faced by credit unions" shows that the size of the risk depends on the structure and market side of the competition. He further reached the conclusion that if the bank is a monopoly or credit Union, and is competing only in the loan market, then deposit insurance has no effect on risk taking. Gisemba (2010) carried out a study on impact of credit risk management practices on financial performance among the SACCOs. He concluded that there was a positive relationship between credit risk management practices and the financial performance of SACCOs, depicting the relationship between credit risk management practices and financial performance in organizations.

Haneef et al., (2012) examined the effect of risk management on non-performing loans and the profitability in Pakistan banking. The study used sampling technique where it selected five commercial banks for inclusion in the study. The finding of this study revealed the absence of an appropriate risk management mechanism in the banking sector in Pakistan. The study also found that non-performing loans are increasing because of the lack of risk management that threatens the bank profitability. Oretha (2012) examined the relationship between credit risk management practices and financial performance of commercial banks in Liberia. Quantitative research design was employed under the quantitative research design survey method. The conclusion of his study shows a positive relationship between the credit risk management practices and financial performance.

Lepus (2004) in a survey of the best practices in strategic credit risk management in USA, observes that, sixty-three (63%) per cent out of the eight banks interviewed employed Monte Carlo methods of credit risk measurement, while sixty-three (63%) per cent, fifty (50%) and thirteen (13) per employed VaR, and expected and unexpected models of measuring credit risk.

2.3 Credit risk management strategies in commercial banks

Credit risk management strategies point to those functions used by banks to avoid or mitigate the negative impact of credit risk. Where an effective credit risk management framework is in place, it ensures that the banks will enhance profitability and ensure survival. Afriyie & Akotey (2011) indicates that credit risk situation of a bank can be exacerbated by inadequate institutional capacity, inefficient credit guidelines, inefficient board of directors, low capital adequacy ratios and liquidity, compulsory quota lending as a result of government interference and lack of proper supervision by the central bank. In respect to this, efficient and effective risk management is a very important for banks to improve their performance and reduce the negative effect of the risks.

Credit Derivatives is a strategy that provides banks with an approach which does not require them to adjust their loan portfolio. Credit derivatives for banks provide a new source of fee income and provide banks with the opportunity to reduce their regulatory capital (Shao & Yeager, 2007 cited in Kolapo et al., 2012). Recent innovations in credit derivatives markets have improved lenders' ability to transfer credit risk to other institutions while maintaining their relationships with borrowers (Marsh, 2008 cited in Kolapo et al 2012). Another type of strategy is credit securitization.

Credit securitization according to Michalak & Uhde (2009), is the transfer of credit risk to insurance company this eliminate the bank from monitoring the borrower and fear of the serious impact of classified property. This approach insures the lending activity of banks. Similar to credit securitization is compliance Basel Accord. Basel Accord is known as a set of international regulations that guide banks' operations to ensure safety and stability. It was introduced in 1988 in Switzerland.
Compliance with Basel the agreement means the ability to identify, generate, track and report risk data in an integrated manner and creates the opportunity to improve risk management processes in banks. The new Basel Capital Accord places banks in charge of adopting sound internal credit risk management practices to estimate their capital adequacy requirements (Chen and Pan, 2012 cited in Kolapo et al., 2012). In addition, there is a strategy of adoption of sound internal lending policy.
Adoption of a sound internal lending policy is a set of rules and regulations that guide banks in the disbursement of loans to clients. Rigorous adherence to the lending policy is no doubt the most effective and safest way of managing credit risk. In the same vein, credit bureau could help commercial banks in credit risk management. Credit office is an institution that collects information and sells this information to banks with respect to the borrower's loan file. The office grants a credit score called individual borrower statistics which makes it easy for banks to make an immediate lending decision (Kolapo et al., 2012).

2.3.1 Determinants of credit risk policies in commercial banks

Credit risk creating uncertainty about the counterparty's ability or willingness to meet its contractual obligations. It involves the inability or unwillingness of the clients or the counterparty to meet the obligations relating to lending and other financial transactions (Michalak & Uhde, 2009; Kessey, 2015). a major source of loss is default risk which is the risk of client failure, to comply with its credit service obligations. As the Basel II put it, Banks requirement to manage the inherent credit risk of the entire portfolio as well as the risks in individual loans or transactions. Efficient credit risk management is essential to the long-term success of any banking (Kessey, 2015).

In general, state-owned banks are assumed to take more risks than private and foreign capital requirements and banking risks in full markets. According to Micco & Panizza (2006) That public banks are at greater risk than other banks because they play an important role in facilitating credit policies, and their loans are less sensitive to macroeconomic shocks than private banks. Sapienza (2004) also found such a relationship. He explains this result with three alternative views. From a social point of view, he showed that the state intervened in banks to correct the market failure caused by private banks. According to political opinion, it proves that state-owned banks are a mechanism to follow the special interests of politicians, such as support for political appeals.

Zribi & Boujelbène (2011) affirmed that Large banks are expected to be exposed to lower risks because they have the ability to hold more diversified portfolios. In this regard, much research has been undertaken. According to Megginson (2005), "there is a negative relationship between bank risk and bank size". Megginson stressed that by the fact that larger banks are likely to be more skilled in risk management and have also better diversification opportunities. Zribi & Boujelbène (2011) submitted that macroeconomic indicators such as inflation rate of growth GDP, interest rate and exchange rate can also influence bank credit risk policies. In this setting, many researches have been to analyze the relationship between these indicators and the occurrence of banking crises and found that there is a close relationship between macroeconomic indicators and banking crises and excessive risks (Bohachova, 2008; Angeloni & Faia, 2009; Buch, Eickmeier & Prieto, 2010).

2.4 Core Mechanisms for minimizing loan default

The mechanism of transfer of bank lending channel can be easily explained but proved to be difficult to detect empirically. According to, Black, et al. (2007), during the monetary tightening, the Fed's open market sales are likely to reduce the base deposit base of banks and force these warehouses to rely more on managed liabilities.

Experiential evidence proposes that banks that finance more than core deposits offer more flexibility in loan rates in response to external changes in credit risk. In addition, banks are liquidity providers for credit customers and their accountants. In fact, banks can provide bank-approved borrowers with regular liquidity reductions at a lower cost than other financial institutions (Black, et al., 2007). The adoption of soft laws, self-regulation and the high sense of ethical conduct have acquired great importance in the business world. Financial intermediation is the flow of funds from surplus units to the deficit. Units also are known as market participants consist of individuals, families, institutions, corporations, governments, and foreigners (Casu et al., 2006). An important issue affecting financial intermediation is asymmetry. This risk leads to moral hazard and negative selection. Most financial institutions have suffered from the moral risks of customers expressed through default.

2.5 Impact of credit risk management on loan performance & the development of commercial banking in Saudi Arabia

Credit risk can put a bank in distress if not satisfactorily managed. Kargi, (2011) asserts that Credit risk management increases the Bank's adjusted rate of return by maintaining credit risk within acceptable limits to provide a framework for understanding the impact of credit risk management on the profitability of banks. The increase in non-performing loans in the loan portfolio influence the profitability of banks. Non-performing loan is the percentage of loan values that are in default for three months and above (Ahmad & Ariff, 2007). Kolapo et al., (2012) carried out a research on credit risk and commercial banks performance in Nigeria and established that a 100% increase in non-performing loans reduces profitability as measured by return of assets by 6.5 %. Their study therefore recommended that Nigeria banks strengthen their ability to analyze credit and manage loans, whereas the regulatory authority must pay more attentiveness to banks' compliance with the relevant provisions of the Bank's law and other financial institutions.

Gakure et al. (2012) conducted a study on effects of credit risk management practices on unsecured bank loans in Kenya and concluded that credit risk management practices influence performance of commercial banks to a great extent. Similarly, Li & Zou (2014) carried out a study on impact of credit risk management on profitability of commercial banks in Europe. From their study, a conclusion was drawn that non-performing loans proportion has a large influence of both returns on equity and assets. On the contrary. Kisala (2014) cited Korir (2011) Which he studied is to investigate the impact of credit risk management practices on the financial performance of institutions deposit microfinance deposits in Kenya. Thirty-six respondents were used, and all were staff working in finance firms in Kenya. From the findings the study concludes that deposit taking finance firms in Kenya to counter credit risks they are faced, they adopted credit risk management practices. The study also found a positive relationship between credit risk management practices and the financial performance of microfinance institutions that take deposit (Kisala, 2014).

A high level of financial leverage is usually associated with high risk. According to Umoh (2002) and Ferguson (2003) cited by Kargi (2011), some of banks will be able to sustain a sustained term, even in the presence of a good lender last resort. Thus, the risks faced by domestic banks, linked to the nature of the banking business itself, while the other external banking system, Kargi (2011). Owojori, Akintoye, & Adidu (201) find that the available statistics from the refinanced banks showed clearly that the inability to collect loans and advances to customers and managers or companies related to managers / managers was a major contributor to the plight of liquidated banks. The Saudi Arabia Monetary Agency (SAMA), by a royal decree issued on 4 October 1952, aimed at issuing and strengthening the Saudi currency and stabilizing its internal and external value, as well as dealing with the banking affairs of the government. The subsequent Royal Decree in 1957 expanded SAMA's objectives to regulate exchange customers and manage the country's foreign exchange reserves.

in Article 3.7 of the Saudi Arabian Monetary Agency's charter, each payment or delivery of interest is prohibited as in the notes. However, during the period from 1950 to 1956, there was a partial

introduction of paper money in the form of Hajj receipts supported by precious metals and foreign currencies. Banking difficulties led to the establishment of a new banking surveillance system in 1966.

Saudi banks today compare with other countries in the Middle East. Per capita income is about 50%, which is higher than Iran's income and four times that of Egypt. However, there are many weaknesses. The market is dominated by three publicly owned commercial banks, National Commercial Bank, Riyad Bank and Al Rajhi Banking and Investment Company, limiting competition. As a result, the private oil sector is aging behind, as access to capital is a continuing problem.

3. Methodology and research findings

3.1 Methodological approach and data collection

An empirical study through the distribution of a questionnaire took place. According to Bryman & Bell (2007), quantitative research emphasizes quantification of the data collection and analysis. Usually, quantitative research conducts a deductive approach to the relationship between theory and research which focuses on testing of theory (Bryman & Bell, 2011). In order to test the hypothesis, I collected data of four indicators (ROE, ROA, NPLR and CAR) which are described in a numerical way.

The data collection was done directly by the researcher through the administration of structured questionnaire developed by the researcher through a pilot study which involved the researcher taking some questionnaires to some banks' credit managers in Saudi Arabia.

Sample

The population of this study consists of four commercial banks in Saudi Arabia (Al-Rahji Bank, Bank Al-Bilad, Riyad Bank and the Saudi Investment Bank (SAIB)) which were selected using the random sampling method. This sample method was used because these banks have a high customer base in Saudi Arabia and this factor could easily help the researcher generalize his findings. The target population of the study included bank employees, assistant managers and manager.

3.2 Data analysis approach

For the collected data to be easily understood by the common man, it needs to be analyzed. Quantitative techniques were used by the researcher to analyse the data. After receiving questionnaires from the respondents, the responses were edited, classified, coded and tabulated to analyze quantitative data using statistical package for social science (SPSS 17). For easy study, analysis and comprehension of this work, the researcher used tables and chart in presentation of the data while the data collected from the respondents were well examined accuracy and comprehensibility.

The inferential statistics was applied to establish a casual effect relating independent variables to the dependent variable. A linear regression of financial performance versus credit risk management was applied to establish the effect between variables. The model treats financial performance of commercial banks as the dependent variable while the independent variable is credit risk management.

The analytical model equation is represented in the linear equation below:

$Y = \alpha + \beta 1X1 + \beta 2X2 + \beta 3X3 + \beta 4X4 + e$

Where;

Y= Financial Performance as measured by Return on Assets; ROA

α = Constant term (Total Assets)

β = Beta coefficient

X1 = Credit Risk analysis and assessment

X2 = Credit Risk Identification

X3 = Credit monitoring

X4 = Credit Scoring mechanism

e = Error term

The significance of the analytical model was tested by the use of ANOVA statistical model which is the Analysis of Variance. A regression analysis was done to find out the impact of Credit Risk

Management on Financial Performance. Both the Microsoft Excel and SPSS software were used to insure the accuracy of collected data about Credit Risk Management.

Data reliability and validity

Joppe (2000) affirmed that validity determines whether the research truly measures that which it was intended to measure or how truthful the research results are.

A pilot study was conducted by the researcher taking some questionnaires to some banks' credit managers in Saudi Arabia. From this pilot study, the researcher was able to detect questions that need editing and those that are ambiguous.

3.3 Presentation of findings

This study was carried out through primary data which was obtained by administering of questionnaires from a total of 64 respondents of which all of their questionnaires were collected and utilized for the analysis. This is an indication that the study was able to achieve a response rate of 100%. The data was finally subjected to data analysis and the findings are presented next as shown in the rest part of this section:

From the findings, 23(35.9%) of the respondents were from The Saudi Investment Bank (SAIB), 6(9.4%) from Bank Al Bilad, another 23(35.9%) from Riyad Bank while, 12(18.8%) of the respondents were from Al-Rahji Bank. Also, most of the respondents 22(34.4%) have been working in the banks for a period between 11–15 years while 12(18.8%) have been working in the banks for over 15 years. This implies that most of the respondents were experienced workers who have been working for a minimum of 10 years. Of note is the fact that we had equal representation of the respondents in terms of that gender i.e. 32(50%) of the respondents were male while 32(50%) were female.

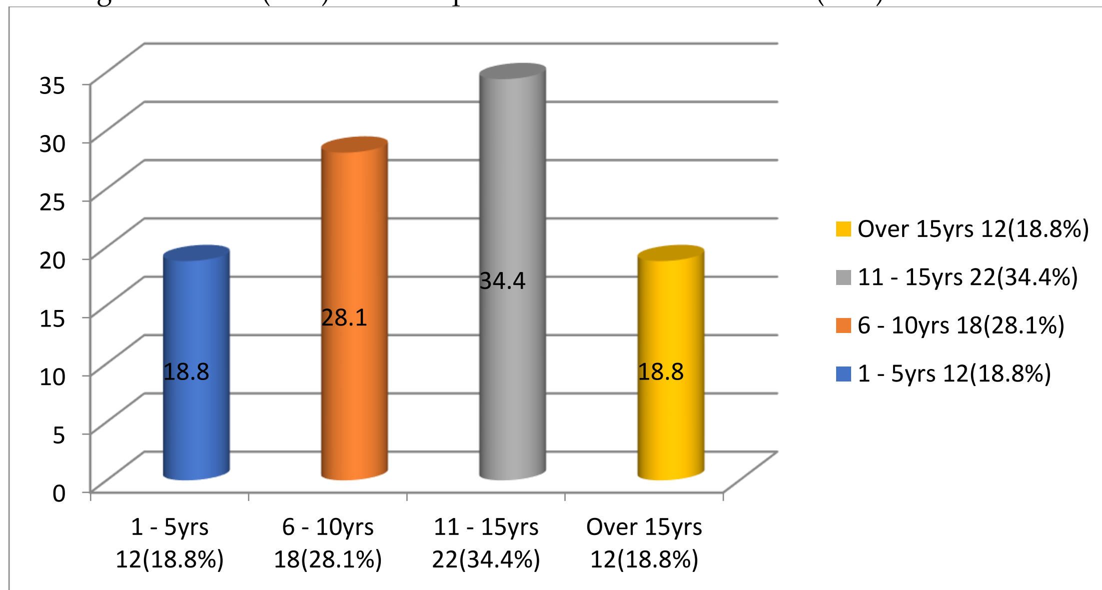

Figure 3: Respondents' Years of Work Experience in the Bank

Research Question 1: What Are the Determinants of Credit Risk Policies of Saudi Banks?

On the determinants of Saudi credit policy, it was found that 59.4% of the respondents believe that existing credit policy is the highest determinant of Saudi credit policies closely followed by overhead cost which 57.8% of the respondents indicated as the determinant of credit risk policy while state of the economy was indicated to determine Saudi credit policy by 37.5% of the respondents. Also, 82% of the respondents indicated that mostly executive management are involved in risk management while 45.3% of the respondents affirmed that the board were involved in risk management to a great extent.

Parties to Risk Management	To a great extent		To an extent		Neutral		To a low extent		To no extent	
	F	%	F	%	F	%	F	%	F	%
The board	29	45.3	21	32.8	10	15.6	3	4.7	1	1.6
Executive management	53	82.8	2	3.1	4	6.3	2	3.1	3	4.7
Internal auditors	26	40.6	12	18.8	2	3.1	2	3.1	22	34.4
External auditors	21	32.8	15	23.4	4	6.3	22	34.4	2	3.1
N = 64										

Table 1: Parties to Risk Management

Research Hypotheses:

H01: There is no significant relationship between credit risk policies and loan performance of Saudi Arabia Commercial Banks

H02: There is no significant relationship between mechanisms to minimize loan default and loan performance of Saudi Arabia Commercial Banks.

H0 3: There is no Statistically Significant Effect of Credit Risk Management Policies on Loan Performance of Saudi Commercial Banks.

Variables	Credit risk policies	Mechanisms to minimize loan default	Loan performance
Credit risk policies	1		
Mechanisms to minimize loan default	.921* .028	1	
Loan performance	.618** .000	.726** .000	1

Table 2: relationship between credit risk policies and loan performance

Table 2 shows that a significant relationship exist between credit risk policies and loan performance of Saudi Arabia Commercial Banks (r = .618**; $p < 0.05$). This implies that if there is a good credit risk policy in place, there will be improvement in loan performance of Saudi Arabia Commercial Banks. Therefore, the null hypothesis 1 is rejected.

Table 2 equally shows that a significant relationship exists between mechanisms to minimize loan default and loan performance of Saudi Arabia Commercial Banks (r = .726**; $p < 0.05$). This implies that the more the banks are strategic in their approach towards minimizing loan default, the more there would be improvement in their loan performance. Therefore, the null hypothesis 2 is rejected.

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.377	1.714		.220	.027		
	Credit Risk analysis and assessment	.253	.205	.130	1.235	.022	.898	1.114
	Credit Risk Identification	.492	.153	.383	3.208	.002	.695	1.438
	Credit monitoring	.503	.183	.296	2.750	.008	.854	1.171
	Credit Scoring mechanism	.114	.117	.109	.969	.036	.784	1.276
a. Dependent Variable: Financial Performance								

$R = .645^a$; $R^2 = .417$; Adjusted $R^2 = .377$; $F_o = 10.531$

Table 3: Multiple Regression Analysis *Showing Statistical Effect of Credit Risk Management Policies on Loan Performance of Saudi Commercial Banks*

It was also observed that 65.7% of the respondents indicated that good risk management practices help to minimize losses to the bank. In the same vein, 34.3% affirmed that risk management has no implication to the financial performance of the bank. Also, further observation of the results as indicated by the respondents shows that 79.7% of the respondents affirmed that effective risk

management improves reduction of defaults to a great extent. In the same vein, 64.1% of the respondents indicated that risk management improves bank wealth to a great extent.

The table 3 above, reveals the statistical effect of credit risk management policies on loan performance of Saudi Commercial Banks, expressed as beta weights, viz: Credit Risk analysis and assessment (B = .253; t = 1.235; p< .05), Credit Risk Identification(B = .492; t = 3.208; p< .05), Credit monitoring(B = .503; t = 2.750; p< .05), and Credit Scoring mechanism (B = .114; t = .969; p <.05). Hence, credit risk management policies expressed as Credit Risk analysis and assessment, Credit Risk Identification, Credit monitoring and Credit Scoring mechanism when combined together have statistically significant effect on loan performance of Saudi Commercial Banks. Therefore, the null hypothesis 3 is rejected.

4. Discussion

4.1 Discussion/Analysis

The main aim of this study was to establish the Effect of Credit Risk Management on the Financial Performance of Saudi Commercial Banks. Thus, the study had specific objectives which include identifying the kind of policies often adopted for loan recovery purposes in Saudi Arabia, core mechanisms through which Saudi Arabian banks minimize loan default and determining the effective credit to facilitate loan performance in Saudi commercial banks.

The study findings established that most of the commercial banks in Saudi Arabia had a formal written credit policy manual and that they were reviewed on various times as the need arises. The analysis of variance revealed that there is a very high effect of credit risk management on financial performance of commercial banks in Saudi Arabia. Regression results have shown that Credit Risk analysis and assessment, Credit Risk Identification, Credit Scoring mechanism are positively and very significantly related to the Financial Performance of commercial banks in Saudi Arabia.

The findings of this research are in support of those by Afriyie & Akotey (2011) who sought to find out the impact of credit risk management on the profitability of rural and community banks in the Brong Ahafo Region of Ghana. Their study found a positive relationship between credit risk and profitability of the community banks. Just like the findings of this study, Afriyie & Akotey (2011) found that the banks benefited from the high credit risk.

This research findings are contrary to those of Poudel (2012) in Nepal. The study by Poudel (2012) was done to determine how credit risk indicators like default rate are pertinent to credit risk management in affecting banks’ financial performance in Nepal. In agreement with the conventional views, the study found a negative relationship between credit risk and financial performance of banks in Nepal. The findings of this research are also contrary to those of Ogboi & Unuafe (2013) in Nigeria. They carried out a study to find out the effect of credit management on financial performance of banks in Nigeria. They found a negative relationship between ROA and credit risk indicators like loan loss provisions, loans and advances and non-performing loans.

The inconsistencies in the results by researchers in the different countries could be explained by the differences in banking regulations between the different counties and the number of commercial banks in the different countries.

5. Conclusion

The study concluded that the credit risk assessment, credit rating mechanism, credit analysis and evaluation are good indicators of the model and therefore the three indicators used in credit risk management have shown a positive relationship with the financial performance of commercial banks in Saudi Arabia. The study also concluded that the approaches used by banks in screening and risk analysis before granting credit to customers were very effective. The results of the study concluded that capacity / competition and conditions are the approaches most often used in risk analysis and analysis. Finally, the study found positive effects of credit risk management on the performance of loans with Saudi banks

On the significance of this study, it will help the management of commercial banks in Saudi Arabia to gain insight on the relationship between credit risk management practices on the loan performance of commercial banks and as result, adopt appropriate risk management practices in reducing the level of non-performing loans and enhance loan performance. The study will also be useful to the government in policy making regarding the loan requirements and also for the supervision of commercial banks. The policy makers will obtain knowledge on the best mechanisms that should be adopted to curb the poor loan performance and the responses that are appropriate should they occur. This study will therefore act as a guide in adopting effective risk management practices by commercial banks.

This study will also contribute to literature/theory by showing how credit risk management (CRM) practices can affect the performance of loans in commercial banks. It will also add to the body of literature on the effects of credit risk management practices on the management of the lending portfolio of commercial banks. The study will also be significant to any researcher who may find the study valuable to form a foundation to identify research gap and carry out further research.

5.1 Limitations & recommendations

The proper management of credit risk in any bank is the key factor for success, and as a result, the regulatory institution of Saudi Arabia banks, which is SAMA, should intensify its monitoring skills of the commercial banks to ensure strict adherence of financial institutions When it comes to granting credit. Banking management should also strengthen staff building by providing training and seminars to improve business knowledge as this will ensure that risk is effectively identified. The assessment must be made before credit is disbursed to creditors in order to mitigate credit risk and improve the financial performance of commercial banks in Saudi Arabia.

This study concentrated on the effects of credit risk management practices on loan performing of commercial banks in Saudi Arabia. This study recommends that the study be extended to Microfinance institutions in Saudi Arabia based on the crucial role played by this sector in the Saudi economy as they are also involved in the credit market which exposes them to credit risk.

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