

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service providers, the traditional outsourcing emphasis on tactical benefits like cost reduction have more recently been replaced by productivity, speed, innovation and flexibility in developing business applications, and access to new technologies and skills (Greer and Gary 1999).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 (Frayser *et al.*, 2000). Successful implementation of an outsourcing strategy has been credited with guiding to cut cost (Greer *et al.*, 1999), increase 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.

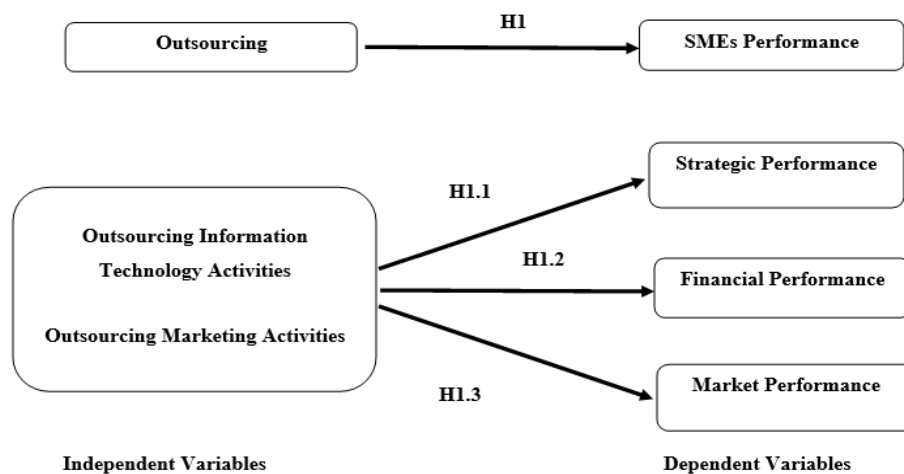


Figure: 1 Conceptual Framework

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 <i>et al.</i> (2006)
Probability value	P	> 0.05	Byrne, (2010)
Tucker–Lewis Index	TLI	$\geq .95$	Schreiber <i>et al.</i> (2006)
Comparative Fit Index	CFI	$\geq .95$	Schreiber <i>et al.</i> (2006)
Goodness of Fit Index	GFI	$\geq .95$	Hair <i>et al.</i> (2010)
Root Mean Square Error of Approximation	RMSEA	$<.08$	Hair <i>et al.</i> (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

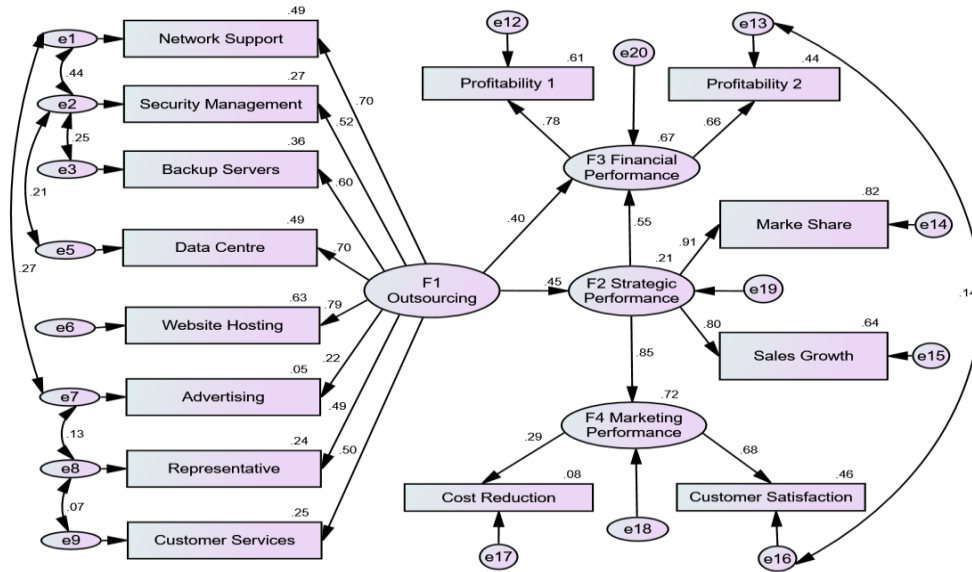


Figure 2: Structural Model - Final Analysis
 The Structural Model Validity - Final Analysis:
 Table (4) provides a Structural Model (Final analysis)
 Table 4: Structural Model - Final Analysis

Goodness of Fit (GOF) Measures	Shorthand	Recommended	Model Result	Remark
Chi-Square/ Degrees of Freedom Ratio	χ^2/DF	≤ 2 or 3	1.2	accepted
Probability value	P	> 0.05	.13	accepted
Tucker-Lewis Index	TLI	$\geq .95$.98	accepted
Comparative Fit Index	CFI	$\geq .95$.99	accepted
Goodness of Fit Index	GFI	$\geq .95$.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 ($\chi^2 = 78.87$, $DF = 65$, $\chi^2/DF = 1.2$, $p = 0.13$, $GFI = 0.95$, $RMSEA = 0.03$, $TLI = 0.98$ 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 out was 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 be on value addition, not only the cost factors.

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