



UNIVERSITY OF NAIROBI
SCHOOL OF COMPUTING & INFORMATICS

**EFFECT OF INFORMATION TECHNOLOGY OUTSOURCING ON THE
PERFORMANCE OF BANKS IN KENYA: APPLICATION OF THE BALANCED
SCORECARD**

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A project report submitted in partial fulfillment of the requirement for the award of Masters
of Science in Computer Science of the University of Nairobi.

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DECLARATION

This project is my original work and to the best of my knowledge this research work has not been submitted for any other award in any University

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This project report has been submitted in partial fulfillment of the requirement of the Master of Science Degree in Computer Science of the University of Nairobi with my approval as the University supervisor

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DEDICATION

This research work is dedicated to my beloved family for their love, guidance and support over the years. Thank you and May the Almighty God bless you.

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First and foremost I give thanks to Almighty God for giving me the strength, and knowledge needed to undertake this project.

I wish to acknowledge and appreciate my supervisor Mr. Moturi for his valuable insights, suggestions, patience, availability and academic guidance that enabled this research project to come to its final conclusion.

Last but not least to my family members for encouragement and support they gave me while working on this project.

ABSTRACT

IT Outsourcing has emerged as one of the popular and widely adopted business strategies of this globalized era. The banking sector in Kenya has not been left behind as there has been a 50 % significant rise in outsourcing (Barako and Gatere, 2008). The rapid growth and the complex nature of ITO have not been without impact. A number of outsourcing deals have experienced both serious problems and the premature discontinuation of contracts (Whitten and Wakefield, 2006) making performance measurement is a key factor to consider during the outsourcing process. The study sought to look at Information Technology Outsourcing (ITO) practices in the Kenyan banking sector and the effect it had on performance. Balance Scorecard was used to measure performance as it considers both financial and non-financial aspects. The study took the form of a descriptive survey design with a target population of 14 commercial banks operating in Kenya. Primary data was collected from structured questionnaires and secondary data was collected from the banks past financial records. The study revealed that Connectivity and Help desk support were the most outsourced IT functions in the commercial banks. The study also revealed the two main drivers for ITO were strategic focus and cost reduction. The main challenge the commercial banks faced during the ITO process was lack of a proper cost benefit analysis and loss of control. The study further revealed that ITO has a positive and significant effect on financial performance, learning and growth, customer satisfaction and internal processes. The study concluded that indeed IT outsourcing practices in the Kenyan Commercial banks had a positive and significant effect on both the financial and non-financial organization performance. Proper measures should however be put in place to ensure a successful ITO arrangement in the Kenyan banking industry

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ACRONYMS

BSC- Balanced Scorecard

BPO- Business Process Outsourcing

EVA-Economical Value Added

IT- Information Technology

ITO- Information Technology Outsourcing

LAN- Local Area Network

ROA- Return on Assets

ROI- Return on Investment

ROE- Return on Equity

WAN- Wide Area Network

CHAPTER ONE: INTRODUCTION

1.1 Background Information

1.1.1 IT Outsourcing

IT Outsourcing is not a new concept, it has existed since around the 1980s when organizations began to explore the possibility of procuring their IT products and services from outside their firms and has grown swiftly over the past years (Choudhuri et al, 2009).

Today's global business is heavily dependent on Information Technology (IT). IT also enables business transformation; supports efficiencies and effectiveness in operations and also enable organizations to deliver flexible services in step with constantly changing customer demands (Maguire and Ojiako, 2008). However, IT has also brought problems to the organizations by way of increasing complexities in the management of information Technology systems, changing IT application tools and high investments required in its IT infrastructure (Han et al., 2008). The reality for most organizations is that the rate of technology change has been extremely fast thus organizations are committing a large amount of in-house resources and capabilities to cope with these changes. Such challenges make it difficult for some companies to invest in IT, resulting in a need to re-think their business models. One such approach which has proved popular over the last few years is to outsource IT which will ensure firms concentrate on core business competencies and at the same time avail of the latest technologies and practices in their IT domain.

The banking industry in Kenya is governed by the Companies Act, the Banking Act, the Central Bank of Kenya (CBK) Act and the various prudential guidelines issued by the Central Bank of Kenya. The banking sector was liberalized in 1995 which led to stiff competition in the banking industry through deregulation and technology. There has been a significant rise (50%) in outsourcing activities in the banking sector (Barako and Gatere 2008). The constant changes in IT has provided the banking sector with an opportunity to use outsourcing as a strategic tool to: focus on their core competencies, develop new capabilities, improve their processes, service quality, and operational efficiency thereby increasing the reach of their services and reducing the cost of service delivery (Jain and Natarayan 2011).

1.1.2 Performance Measurement

Performance measurement can be defined as the process of quantifying the efficiency and effectiveness of action toward explicit short-run and long-run objectives (Taticchi and

Balachandran, 2008). Performance measurement and management has notably increased in the last 30 years (Valmohammadi and Servati 2011). Firms used to measure the organization performance using the balance sheet, income statement, and cash flow statement. The progress of focusing performance from merely a financial perspective to a non-financial perspective has intensified over the last few years as firms have understood that for competing in complex and continuously changing environments, it is compulsory to measure, monitor and manage organizational performance in its multiple dimensions (Taticchi et al., 2010). There is also a growing interest in whether non-financial measures such as customer satisfaction, employee satisfaction, or innovation are useful indicators of a firm's future performance. Practitioners have begun to look into implementation of balanced scorecard as means to overcome limitations of traditional performance measurement systems.

David Norton and Robert Kaplan developed the balanced scorecard after realization of the fact that, today's world requires organizations to transform themselves for competitive advantage based on information and their ability to exploit intangible assets, rather than investing in tangible assets, (Kaplan and Norton, 1992).

1.2 Problem Statement

IT outsourcing has continued to appear as an attractive option for organizations which have recognized that they lack the necessary competence and capabilities to leverage their IT infrastructure, the need to focus on their core competences and reduction of cost (Pai and Basu, 2007). The contribution of outsourcing to organizational performance is still low as most organizations struggle to identify what should be measured and how to normalize data across different organizational contexts (Harmon et al., 2006). Performance measurement is more complex in business services as it lacks the tangible attributes of physical products, and includes many attributes that are difficult to specify in measurable terms (Ellram et al., 2009). The financial sector is one of the many organizations that offer business service to its clients.

There is therefore need to investigate whether IT outsourcing by commercial banks is helping them focus on their core business initiatives and whether it has improved their financial and non-financial performance.

Various studies have been conducted on IT outsourcing and organization performance. Barako and Gatere (2008) carried out a survey on Kenyan commercial banks on the perceived benefits, risks and factors determining outsourcing decisions. Wang et al. (2008) did an empirical study on performance after the ITO decision. Sallimat (2008) did a study on outsourcing and performance management in entrepreneurial firms. Most of these studies focused on the effect of ITO on financial performance. For this reason, the present study sought to fill in the gap by determining the effect IT outsourcing practice has on the performance of commercial banks through the application of the balanced scorecard.

1.3 Research Objective

The objectives of this study are:

- i. To establish the IT outsourcing practices in commercial banks in Kenya.
- ii. To establish the effect of IT outsourcing practices on non-financial performance in the commercial banks in Kenya
- iii. To establish the effect IT outsourcing practices on financial performance in the commercial banks in Kenya.

1.4 Research Questions

The study will seek to answer the following research questions:

- i. What are the IT outsourcing practices in the by Kenyan Commercial Banks?
- ii. What is the effect of IT outsourcing practices on non-financial performance in the commercial banks of Kenya
- iii. What is the effect of IT outsourcing practices on financial organizational performance in the commercial banks of Kenya?

1.5 Value of the Study

The findings of the study will be useful to scholars, academicians, managers, bankers and individuals.

The findings of the study will provide insight for managers in banking industries when confronted with the decision of whether or not to outsource IT services in their banks. Managers may also find the study results useful as a tool for decision making.

The study will also be of importance to researchers and future scholars as it will act as a source of reference besides suggesting areas for further studies that future scholars can research further.

CHAPTER TWO: LITERATURE REVIEW

2.1 Theoretic Review

The theories of outsourcing reviewed in this sub-section are resource-based view theory, transaction cost theory and agency theory.

2.1.1 Resource Based View Theory (RBV)

RBV emphasizes that a firm might be able to gain competitive advantage if resources and capabilities differ across competing firms and it is extremely expensive from competing forms to eliminate those differences (McIvor, 2009). The resource-based view in outsourcing builds from a proposition that an organization that lacks valuable, rare, inimitable and organized resources and capabilities, shall seek for an external provider in order to overcome that weakness. The RBV can aid with analyzing organizational capabilities, which can connect outsourcing with the competitive priorities of the company and performance (McIvor, 2009).

2.1.2 Transaction Cost Economics Theory (TCE)

Transaction cost theory focuses on the exchange of goods and or service between economic actors. According to TCE, transaction costs are positively associated with: the necessity of investments in durable, specific assets; infrequency of transacting; task complexity and uncertainty; difficulty in measuring task performance; and independencies with other transactions (Gottschalk & Solli-Saether, 2006). The greater the transaction costs, that is the greater the costs that information, negotiation and supervision of compliance entail, the less the tendency to outsource the activity (Espino-Rodriguez and Gil-Padilla 2006).

2.1.3 Agency theory

Agency theory evaluates cost implied by principal and agent relationship. The client (principal) and vendor (agent) are separate organizations, their goals and objectives are likely to diverge. This can create a scenario in which the vendor might exhibit opportunism behavior such as avoiding project responsibilities or exploiting opportunities to derive additional revenue from the client (Aron et. al., 2005). Agency concerns can be mitigated through two mechanisms: pre-specifying in detail how the outcomes of an outsourced project will be evaluated and using these metrics to tie vendor performance and monitoring the behavior of a vendor during the development process (Amrit and Ashely, 2007).

2.2 IT Outsourcing Concepts

There are four types of IT outsourcing categories, which are total outsourcing, in house sourcing, selective sourcing and strategic alliance (McIvor 2013). Total outsourcing describes a relationship for all IT services with one or more IT services suppliers. In house sourcing involves retaining IT responsibilities as in-house functions. Multiple selective sourcing describes a relationship with one or more IT services suppliers for only parts of the IT services. Strategic alliance is a type of outsourcing agreements that is in the spirit of long-term partnerships and alliance.

2.3 Drivers behind IT outsourcing

IT outsourcing has experienced a remarkable growth in recent years. IT outsourcing was first driven by the firms' attempts to reduce or control costs and to focus on their core business, and then seen as a way to improve IT services, outsourcing is now a widespread phenomenon (Lee et al., 2008). Other reasons why organizations outsource IT include: cost savings, reduced capital expenditure, capital infusion, transfer fixed costs to variable, quality improvement, increased speed, greater flexibility, access to skills, talent and latest technology, increased focus on core functions, get rid of problem functions, better accountability and management. All these reasons can be classified into three major categories: cost, strategy, and politics (Kremic, et al., 2006).

Scholars that study the determinants or drives behind IT outsourcing suggest that IT outsourcing decisions are generally motivated by expected benefits brought by IT outsourcing. There is however some disagreement over the primary motivations for IT outsourcing. Fisher et al. (2008) found cost reduction to be the primary driver for outsourcing. Wang et al. (2008) found that companies that have high IT core capability can more successfully leverage outsourcing advantages. King (2007) suggested that IT is not viewed as a core competency by organizations and suggests that outsourcing can be cost effective as well.

2.4 Challenges of IT outsourcing

Outsourcing is an inevitable and critical aspect of financial institutions to survive in a rapidly changing business environment (Qin et. al, 2012). However, it is important for the management to understand the various risks their organization gets exposed to while engaging in outsourcing.

A case study found risks in contract management, performance measurement, formulating scope, deciding the budget and schedule estimates, knowledge/expertise, quality standards, scope, cost and time estimates, multi-vendor arrangements, and cross-culture issues as some of the risk associated with IT outsourcing (Dhar and Balakrishnan 2006). It was evident from the experiences in outsourcing that more often than not outsourcing engagements lead to situations where: client organization end up relying too much on the outsourcing vendors for their IT, and business needs; organization end up exposing itself to the greater risks such as loss of: internal competencies; innovation capabilities; cross-functional skills; and loss of control over the process and/or the vendor (Mohapatra and Das, 2013). Kremic et al., (2006) identified the following factors as being potential challenges of outsourcing: knowledge/skills and/or corporate memory , loss of control/core competence, power shift to supplier, supplier related problems such as poor performance, bad relations, opportunistic behavior, not giving access to best talent or technology, losing customers, opportunities or reputation; uncertainty/changing environment, poor morale/employee issues, loss of synergy, conflict of interest, security issues, legal obstacles and skills erosion.

2.5 IT services outsourced by banks

Outsourcing activities in the banking industry can be generalized into three categories: business process outsourcing (BPO), IT outsourcing and applications outsourcing (Computer Economics, Inc., 2008). BPO indicates the labor-intensive work accounts that do not rely heavily on technology. It could apply to procurement, payable, call center, human resource, billing and collection, back-office operations and other labor-intensive functions. Applications outsourcing includes the work related to banks everyday business such as lending, taking deposits and dealing with customers. IT outsourcing refers to pure technology, such as operating systems management, network management, desktop management, data center management, disaster recovery, Database administration, IT security and other generic aspects of technology.

2.6 Organization performance

Performance measurement plays important roles, such as translating strategy into desired behaviors and results, communicating these expectations, monitoring progress, providing feedback (Chow and Van der Stede, 2006).

For a long time, managers had primarily used accounting-based measures, which were named as financial measures, to evaluate performance of organizations (Chow and Van der Stede,

2006). In the recent years however, it became evident that looking at just financial measures masks many of the important performance activities that are taking place behind the scenes. Since using financial measures had some limitations, both scholars and practitioners were urged to develop non-financial measures. Organizations that are aware of this fact are beginning to utilize non-financial measures along with financial measures. (Chow and Van der Stede,2006).

2.7 Outsourcing and organization performance

Effective performance measurement and management is acknowledged as a critical influence on outsourcing (McIvor, 2013). Outsourcing performance studies have considered mainly outcome-based financial indicators because of the availability of financial performance data (Giustiniano &Clarioni, 2013). To be sustainable, a firm needs to look beyond profitability and incorporate competitive, strategic, and stakeholder concerns which measure the non-financial performance of the firm.

2.8 Balanced Scorecard

The balanced scorecard considers both financial and non-financial aspects for quality performance evaluation. It complements traditional financial measures by introducing three additional perspectives which are: customers, internal business processes, and learning and growth which are non-financial performance. The three additional perspectives are the drivers of future financial performance. According to Kaplan and Norton (1992) the sole reliance on financial measures in a management system, was inadequate. It could lead to behavior that promotes short term performance at the expense of long term competitive advantage.

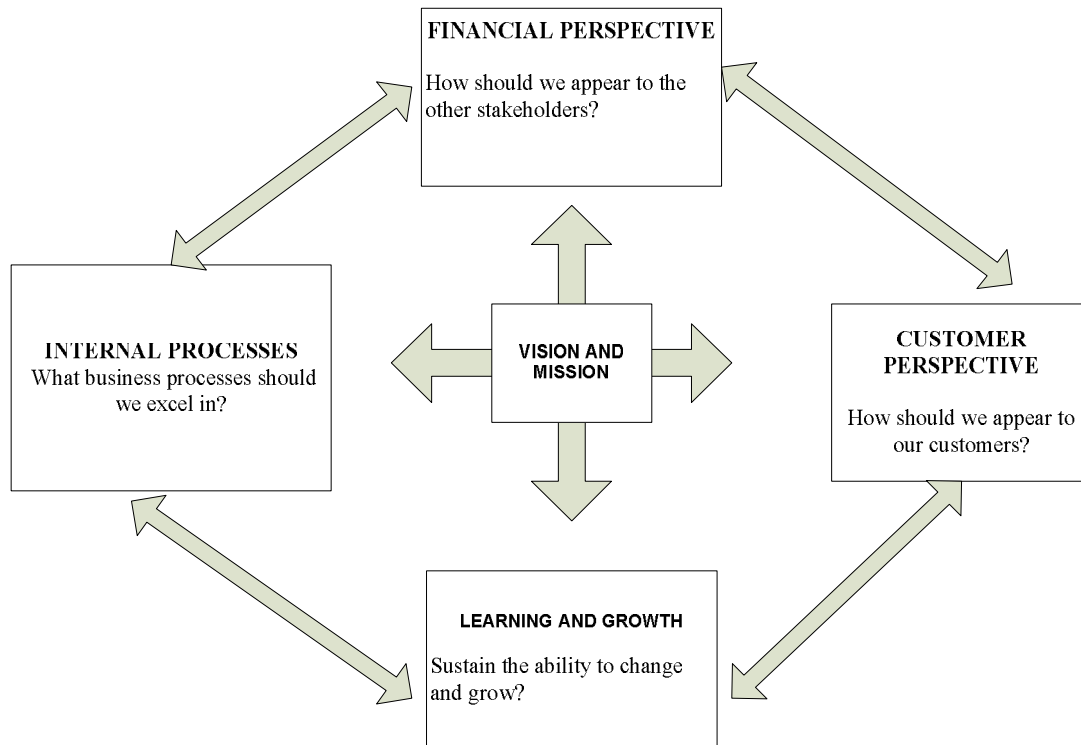


Figure 1.1: Balanced Scorecard Model Kaplan and Norton, 1992

2.8.1 Balanced Scorecard Perspective

The four perspectives are linked in a chain of cause-and-effect relationships. Kaplan and Norton (1992) argue that a training program to improve employee skills (the learning and growth perspective) improves customer service (internal process), which, in turn, leads to greater customer satisfaction and loyalty (customer) and, eventually, increased revenues and margins (financial).

Financial perspective measures focuses on profitability-related measures. Shareholders are able to gauge the success of their investments based on the organization profitability (Kaplan and Norton, 1992). To measure the profitability of commercial banks there are variety of ratios used of which Return on Asset, Return on Equity and Net Interest Margin are the major ones (Alexandru et al., 2008).

ROE is a financial ratio that refers to how much profit a company earned compared to the total amount of shareholder equity invested. ROE is what the shareholders look in return for their investment Khrawish (2011). A business that has a high return on equity is more likely to be one that is capable of generating cash internally. ROA is also another major ratio that indicates the profitability of a bank. It is a ratio of Income to its total asset (Khrawish, 2011).

It measures the ability of the bank management to generate income by utilizing company assets at their disposal. Net interest margin (NIM) measures the gap between the interest income the bank receives on loans and securities and interest cost of its borrowed funds. It reflects the cost of bank intermediation services and the efficiency of the bank. The higher the net interest margin, the higher the bank's profit and the more stable the bank is (Khrawish, 2011).

Customer perspective defines how a particular organization differentiates itself from competitors to draw, retain, and strengthen relationships with targeted customers. Customer perspective is valuable and crucial as it helps an organization connects its internal processes to improve and thrive for better outcomes with its customers. The customer perspective is a core of any business strategy that describes the unique mix of product, price, service, relationship, and image that a company offers (Kaplan and Norton, 1992).

Internal business process perspective defines the key internal processes, in which the organization must excel. The business must be efficient and effective at what it does. The internal process perspective is based on the notion on achieving satisfaction from customers and earning a high financial return. The internal process measures are typically based on the objective of most efficiently and effectively producing products or service that meet customer needs (Kaplan and Norton, 1992).

Learning and growth perspective identifies the infrastructure that the organization must build to create long- term growth and improvement. The perspective is all about developing the capabilities and processes needed for the future. For a business to succeed not only must it effectively carry out daily transactions, it has to constantly improve in terms of the value and cost of its offerings (Kaplan and Norton, 1992).

2.9 Conceptual framework

In this study, organization performance was treated as the dependent variable while IT outsourcing was the dependent variables. The intervening variables were government legislation and Competition from other banks. This is shown in figure 2.1

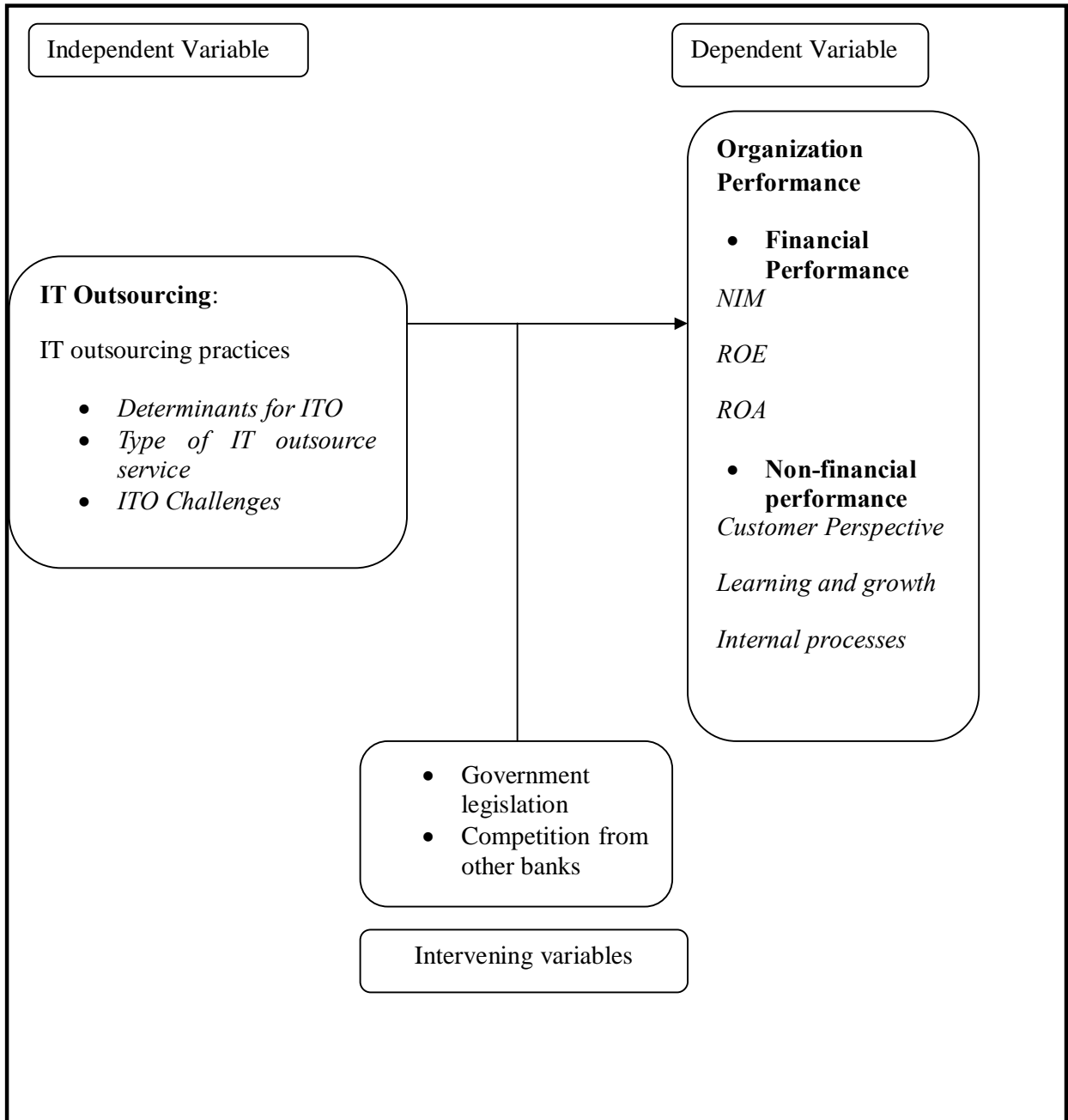


Figure 1.2: Conceptual framework

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Research Design

A research design constitutes decisions taken by a researcher regarding what, where, by how much and by what means concerning an enquiry or a research study (Mugenda and Mugenda, 2003). The study adopted a descriptive survey design in order to obtain the necessary data.

3.3 Population and Sampling

The study focused on the population located in Nairobi. The population of the study comprised of 20 employees from the two key departments that deal with IT outsourcing in the 14 licensed commercial banks giving a total of 280 employees. Simple random sampling technique was then used to pick respondents from each stratum.

Mugenda and Mugenda (2003), considers a sample size of 30% as sufficient enough, this study therefore made use of 50% of the population size which is double the requirement and thus target 140 respondents as the sample size.

Table 3.1: Target Population and Sample Size

Bank	Target population	Percent	Sample Size
KCB	20	50%	10
Cooperative Bank	20	50%	10
Equity	20	50%	10
Standard Charter Bank	20	50%	10
Barclays Bank	20	50%	10
Family Bank	20	50%	10
National Bank of Kenya	20	50%	10
CBA	20	50%	10
Housing Finance	20	50%	10
Bank of Africa	20	50%	10
I&M Bank	20	50%	10
CFC Stanbic	20	50%	10
NIC Bank	20	50%	10
Diamond Trust Bank	20	50%	10
Total	280		140

(Source: Research data)

3.4 Data Collection Methods

The study used primary data as well as secondary data. Primary data was collected using semi structured questionnaires developed and organized on the basis of the research's specific objectives. The questionnaire began with a short explanation of the nature of the research and

its aim, as well as instructions for filling the questionnaire. A 5-point Likert scale was used in the design of the questionnaire. Secondary data was obtained from past financial record.

3.5 Research Procedures

The questionnaires were based on the research questions and were pre-tested to ascertain the suitability and validity of the tool before the actual administration. The final version of the questionnaire was distributed to respondents in the sample size leaving out the respondents who took part in the pilot test.

Table 3.2: Reliability Statistics

Cronbach's Alpha	N of Items
.717	10

(Source: Research data)

The Cronbach's Alpha value was .717 indicating that the questionnaires were valid and thus the researcher went ahead to administer them.

The respondents were also given the option of anonymity in their response and were also assured of confidentiality. A time frame of two weeks was given to the respondents to fill out the questionnaires. To ensure higher response rate follow up calls were made.

3.6 Data Analysis Techniques

The collected data was first checked for completeness and accuracy then coded before being statistically analyzed using the Microsoft Excel and Statistical Program for Social Scientists (SPSS). Quantitative data was analyzed using Microsoft Excel spreadsheet while qualitative data will be analyzed using content analysis. Regression analysis was used as it provides a means of objectively assessing the degree of the relationship between the independent variables and the dependent variable. Descriptive statistics such as frequency distribution, percentages and arithmetic means were used in order to examine the pattern of responses to each of the variables under description. Tables and figures were used in presentation of data findings.

CHAPTER FOUR: RESULTS AND DISCUSSIONS

4.1 Introduction

This chapter presents the results and findings of the study on the research objectives with regards to the data collected from the respondents. The first section provides the demographics with regards to the respondents. The second section looks at ITO practices in the commercial. The last section assesses the effect of IT outsourcing on financial and non-financial performance using the balanced scorecard perspective.

The respondents targeted in the study were 140 respondents deployed in the 14 commercial banks. A total of 131 responded which is indeed 93 percent of the sample size.

Table 4.1: Response Rate

Response Rate	DISTRIBUTION	
	Frequency	Percentage
Questionnaires Issued	140	100
Questionnaires Returned	131	93
Questionnaires Not Returned	9	7

(Source: Research data)

4.2 Demographics

The demographic information was considered meaningful by the researcher, because of the role it played in enabling the understanding of the logic of the responses given by the respondents.

Table 4.2: Demographics Information

BANK INSTITUTION		
	DISTRIBUTION	
	Frequency	Percentage
Privately Owned Bank	38	28.6
Publicly Owned Bank	93	71.4
Total	131	100
YEAR OF OPERATION OF BANK		
	DISTRIBUTION	
Years	Frequency	Percentage
Less than 10 years	0	0
11- 20 years	13.1	10%
Above 20 Years	86.9	90%
GENDER OF THE RESPONDENTS		
	DISTRIBUTION	
Gender	Frequency	Percent
Male	72	55%
Female	59	45%
AGE OF THE RESPONDENTS		
	DISTRIBUTION	
Age	Frequency	Percent
20-25 Years	26	20%
26-30 Years	53	40%
31-35 Years	26	20%
Above 36 Years	26	20%
LEVEL OF EDUCATION		
	DISTRIBUTION	
	Frequency	Percent
Diploma	10	8%
Bachelors	40	30%
Masters	76	58%
Others	5	4%
NUMBER OF WORKING YEARS		
	DISTRIBUTION	
	Frequency	Percent
Less than 2 Years	33	25
3-5 Years	62	47
6-8 Years	25	19
9 years and Above	11	9

(Source: Research data)

4.3 ITO practices in the commercial banks

The research sought to establish the various IT outsourcing practices which included IT functions outsourced by the banks, the ITO drivers and the challenges faced by the banks during the ITO arrangement.

4.3.1 IT services outsourced by the banks

Connectivity (97%) and Help desk support (55%) were the most outsourced service by the commercial banks. The other services outsourced by the banks included data center management, application management, IT security and ATM management (Figure 4.1).

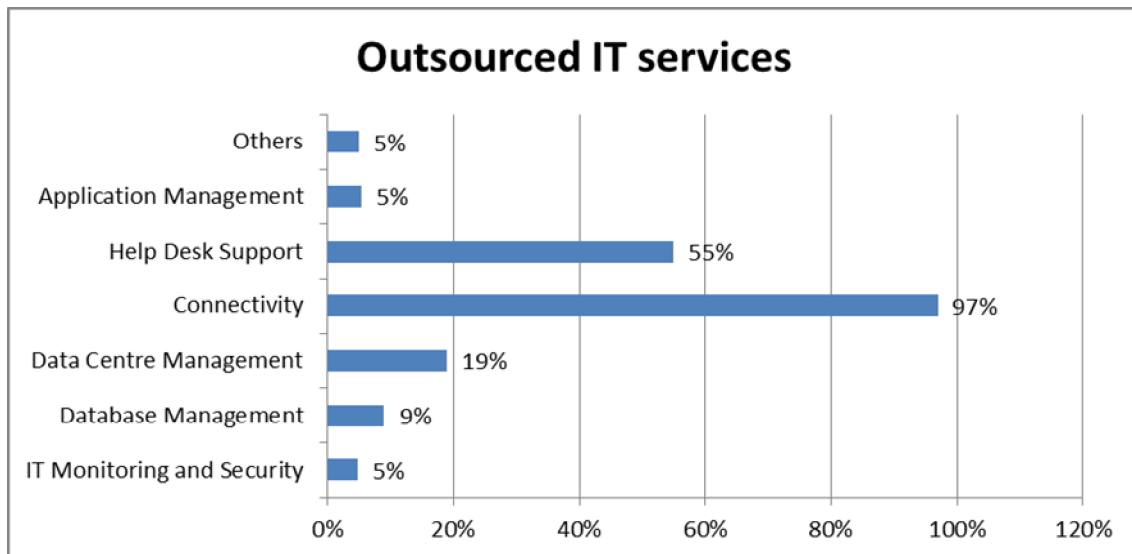


Figure 4.1: Outsourced IT services

4.3.2 Drivers behind IT Outsourcing in Commercial Banks in Kenya

The respondents were further asked to state the drivers for outsourcing IT in commercial Banks in Kenya.

Most banks outsourced IT services for strategic reasons (99%), and cost reduction (97%), Access to specialized vendor (37%), risk reduction (14%) and faster reaction to technology (5%) as seen on Figure 4.2. Other reasons for IT outsourcing included improved quality and flexibility.

Table 4.3: IT Outsourcing Drivers for in the commercial banks in Kenya

Drives of ITO	SA	A	U	DA	SDA	Mean	Ranking
Cost Reduction	70	27	0	3	0	4.12	2
Strategic focus	65	34	0	1	0	4.53	1
Risk Reduction	3	11	20	50	16	3.58	4
Faster reaction to technology	0	5	15	55	25	3.55	5
Access to specialized vendors	7	30	6	44	13	3.66	3

(Source: Research data)

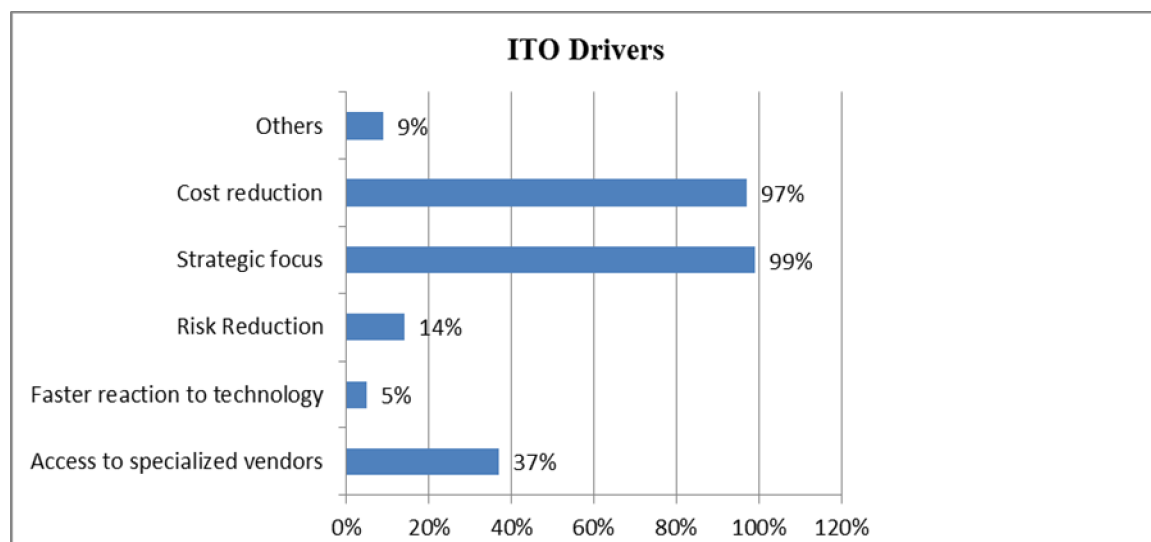


Figure 4.2: ITO drivers in the Commercial Banks

4.3.3 Outsourcing Challenges Facing Kenyan Banks

The study sought to establish the outsourcing challenges facing the commercial banks.

A proper cost benefit analysis was regarded by the respondents as being the leading challenge to IT outsourcing, with a mean of 4.12. Security issues followed closely with a mean of 4.09. Loss of control, with a mean of 4.05, loss of critical skills with a mean of 4.01, inadequate capabilities of providers with a mean of 3.98, contract management, with a mean of 3.92, hidden cost, with a mean of 3.69, and finally cultural issues with a mean of 3.42.(Table 4.4)

Table 4.4: Challenges of IT Outsourcing for Kenyan banks

Statement	SA	A	U	DA	SDA	Mean	SD
Loss of control	21	42	6	14	17	4.05	1.126
Loss of critical skills	25	35	9	11	20	4.01	1.154
Failure to realize hidden cost	27	26	3	19	18	3.69	1.203
Contract Management	19	39	7	24	11	3.92	1.191
Lack of a proper cost benefit analysis system	48	19	0	24	9	4.12	1.006
Inadequate capabilities of the service provider	36	23	0	19	12	3.98	1.182
Cross-culture issues	30	21	10	23	16	3.42	1.239
Security Issues	27	38	9	16	10	4.09	1.109

(Source: Research data)

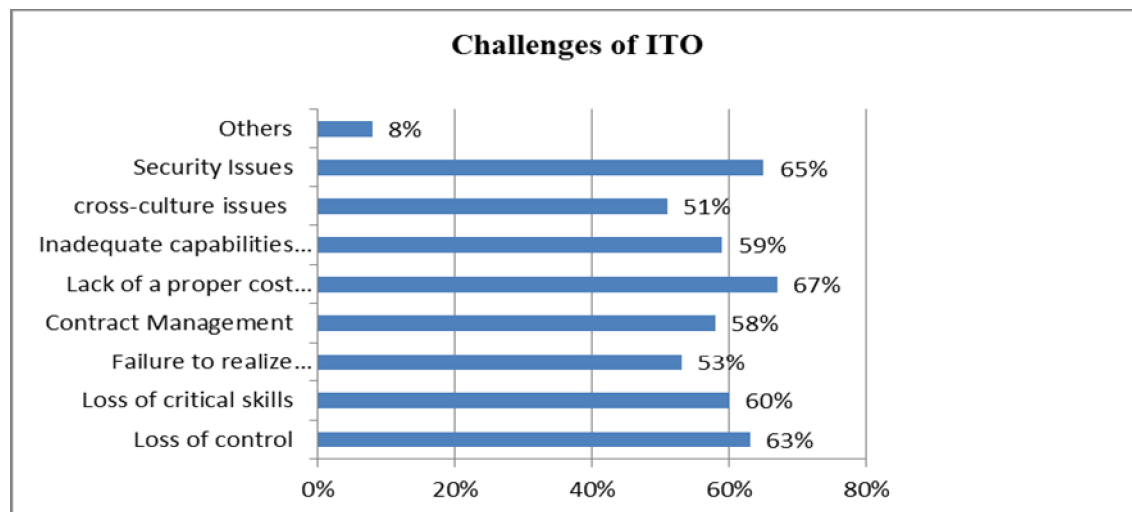


Figure 4.3: Challenges of IT Outsourcing for Kenyan banks

4.4 Effect of ITO on Non-Financial organizational performance

The second objective of the study was to establish the effect of IT outsourcing on non-financial organization performance.

4.4.1 Non-Financial Performance: Learning and growth Perspective

Majority of the respondents were in agreement that indeed, employee specialization (76%), specialized vendor access (87%), and faster reaction to technology change (83%) were effect of ITO on learning and growth. (Figure 4.4)

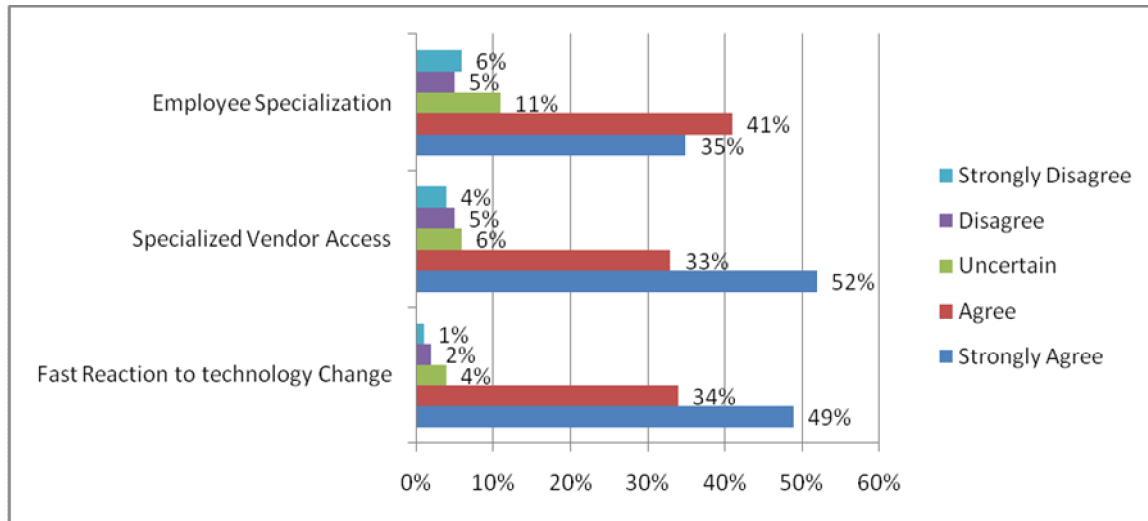


Figure 4.4: IT outsourcing and learning and growth metrics

Table 4.5: Relationship between learning and growth perspective and IT outsourcing

Correlations		IT outsourcing
	N	131
Learning and Growth	Pearson C.	.519
	Sig. (2-tailed)	.429
	N	131

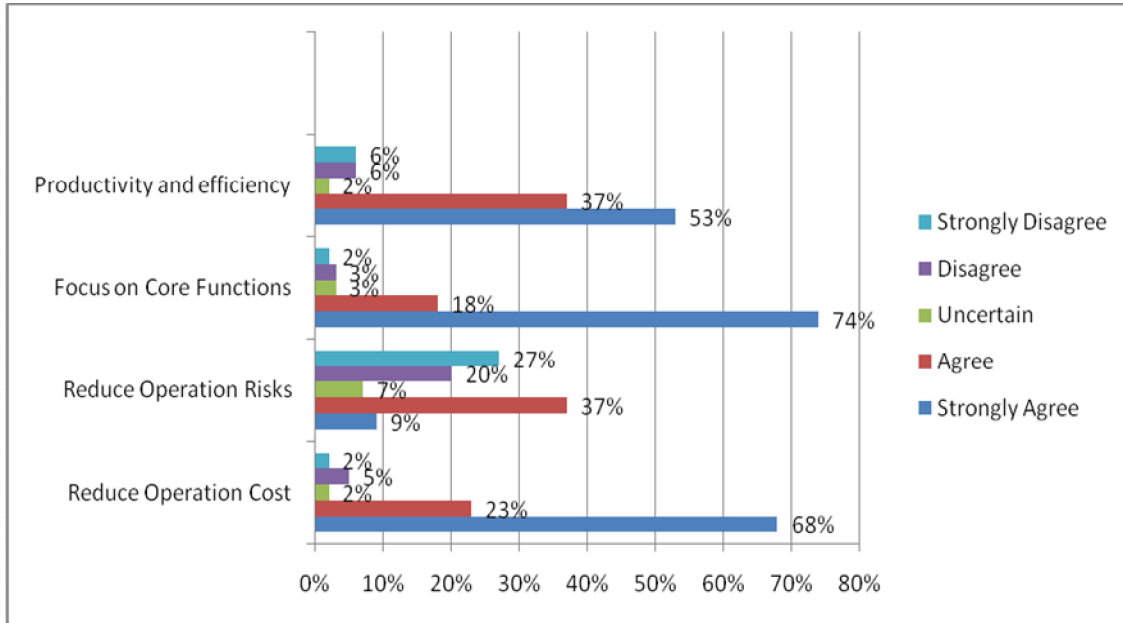
(Source: Research data)

A direct and positive relationship was determined between the learning and growth metric and IT outsourcing (.519). (Table 4.5)

Information technology outsourcing had a positive effect on learning and growth in the commercial banks. ITO brought about employee specialization, specialized vendor access and faster reaction to technology which directly affects the commercial banks value and increases performance.

4.4.2 Non-Financial Performance: Internal Processes Perspective

Productivity and efficiency (90%) focus on core functions (92%), reduction of operation risks (46%) and reduction of cost (91%) were effects of ITO (Figure 4.5).



(Source: Research data)

Figure 4.5: IT outsourcing and internal processes metrics

Table 4.6: Relationship between internal processes perspective and IT outsourcing

Correlations	IT outsourcing	
	N	131
Internal Process Perspective	Pearson C.	.533
	Sig. (2-tailed)	.398
	N	131

(Source: Research data)

A direct and positive relationship was determined between the above internal process perspective metrics and IT outsourcing (.533). (Table 4.6)

Based on the above findings information technology outsourcing had a positive effect on internal processes. ITO practices caused commercial banks in Kenya to excel in their core functions, improve efficiency and productivity which caused the performance of the bank to increase.

4.4.3 Non-financial performance: Customer perspective

Majority of the respondents disagreed that indeed customer satisfaction (56%) and customer loyalty (57 %) were caused by ITO however others agreed that service availability (70%) was as a result of ITO (Figure 4.6). This confirmed the teaching by Mclover (2013) who stated that dependency on a vendor could lead to significant risks in terms of poor vendor service quality, which in turn could harm the reputation of the client organization with its customers.

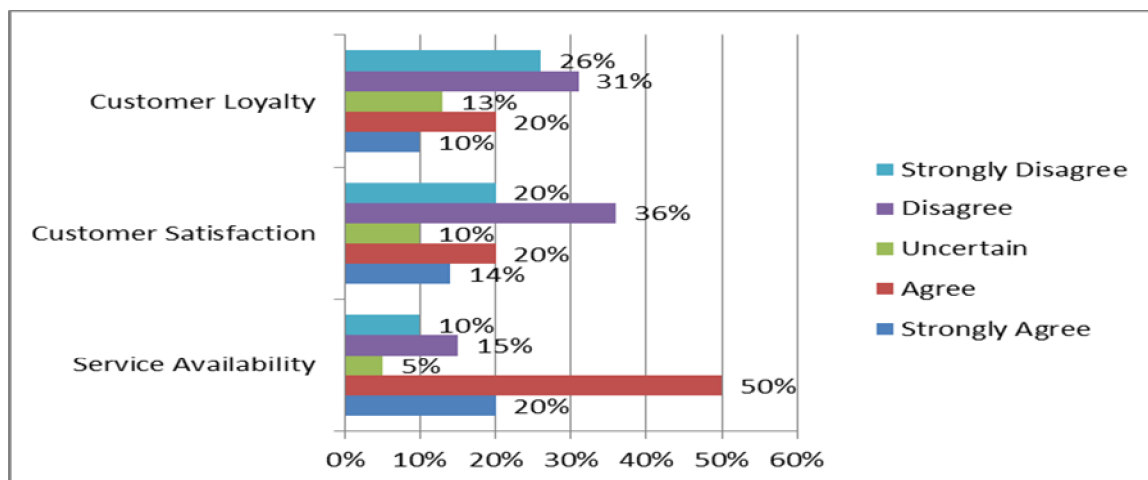


Figure 4.6: IT outsourcing and Customer perspective metrics

Table 4.7: Relationship between customer perspective and IT Outsourcing Practices

Correlations		IT outsourcing
	N	131
Customer Perspective	Pearson C.	.256
	Sig. (2-tailed)	.645
	N	131

(Source: Research data)

A positive and weak relationship between the above customer perspective metrics and IT outsourcing (.256) was determined. This finding indeed indicates that IT outsourcing may not really bring about customer satisfaction, customer retention and customer loyalty in the Kenyan banking sector.

4.5 Effect of ITO on Financial Organization Performance

The third objective of the study was to establish the effect of ITO on financial organization performance.

Table 4.8 Average financial performance for 5 years

	ROA	ROE	NIM
Mean Score	2.146	17.08	7.12

(Source: Research data)

The study revealed that there was a significant positive relationship between ITO practices and Return on Assets ($r = .35^{**}$, $p < .01$), a significant positive relationship between ITO and Return on Equity ($r = .49^{**}$, $p < .01$) and a significant positive relationship between ITO and Net Interest Margins ($r = .34^{**}$, $p < .01$). Table 4.9

A significant positive relationship between ROA and ROE ($r = .41^{**}$, $p < 0.01$) and a significant positive relationship between ROE and NIM ($r = .42$, $p < 0.01$) was established. (Table 4.9)

Table 4.9: Correlation Analysis

	1	2	3	4
IT Outsourcing-1	1.00			
ROA-2	.35**	1.00		
ROE-3	.49**	.41**	1.00	
NIMs-4	.34**	.40*	.42**	1.00

(Source: Research data)

The regression model in the table below shows the prediction level of financial growth performance on IT outsourcing practices in commercial banks

Table 4.10: Regression Analysis

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.1211	.347		3.350	.002
ROA	.312	.151	.045	.243	.346
ROE	.358	.116	.074	.505	.486
NIM	.331	.121	.079	.531	.351

(Source: Research data)

$$Y = .1211 + 0.312X_1 + 0.358X_2 + 0.331X_3$$

$$\text{Standard Error} = .347 \ 0.51 \ 0.116 \ 0.121$$

Y= Performance

X1= ROA

X2=ROE

X3= NIM

The model presents a unit increase in the IT outsourcing practices in the commercial banks caused a 0.312 increase in ROA. A unit increase in the IT outsourcing practices caused a 0.358 increase in the ROE. A unit increase in IT outsourcing practices caused a 0.331 increase

in the performance of commercial banks. Holding all other factors constant, an increase of 12.1% in financial performance was experienced.

4.6 Discussions

The study revealed that commercial banks in Kenya outsourced IT functions such as Helpdesk support, connectivity, data center management, core application management, database management and IT security. Helpdesk support (57%) and connectivity (97%) were the most outsourced IT services. This implies that Commercial banks in Kenya outsource non-strategic functions in the IT department and are left with some that are more strategic functions such as core application management, database management, datacenter management and IT security. IT outsourcing made it easier for banks and financial services to focus on their basic competences and increase their flexibility through a continuous redesign of their contracts (Bhasin 2012, and Ume ó Amen 2010).

The study revealed that there were many reasons why commercial banks in Kenya chose to outsource IT functions. The findings indicated that most banks outsourced IT functions so that they can focus on their core functions and reduce operational cost. This affirmed Willcocks et.al, (2006) teachings that stated that IT outsourcing made it easier for these firms to focus on their basic competences. Gonzalez et al. (2010) also stated that IT outsourcing reduced both staff and technology cost through economies of scale and scope and specialized outsourced staff. The other drivers for ITO included reduction of operational risk, access to specialized vendor and faster reaction to technology.

The findings on the challenges of IT outsourcing in the Kenyan banks showed that indeed outsourcing is bound to bring about loss of critical skills, loss of flexibility, inadequate capabilities of service providers, failure to realize the hidden costs generated by the contract, inadequacy of cost and benefit analysis systems, and difficulty in obtaining organizational support. Whitten and Wakefield (2006) stated that indeed ITO brought about hidden cost which included: search for vendors and hiring, transition cost and transition cost after outsourcing, costs which were not mentioned in contract and post-outsourcing costs. Tuan (2012) also agreed to the loss of critical skill as an ITO challenge by stating that when a service is outsourced, clients gradually lost their understanding of the service over time. This is because knowledge required remained in the provider's hands and could not be transferred to the client. Gritzalis et al., (2007) affirmed that indeed ITO brought about security issues through disclosure of commercial assets since the data is accessed and at times stored at the

vendors' place. Oh et al., (2007) argued that inadequacy of cost and benefit analysis and lack of proper performance measurement were a challenge to IT outsourcing. Oh et al., (2007) stated that at times customer were not able to evaluate the quality of IT Outsourcing arrangements adequately due to lack of mutual monitoring and controlling of provider and customer performance.

The findings on effect of ITO on learning and growth in the commercial banks in Kenya revealed that ITO enabled the bank to have access to specialized skill set, react to technology changes faster and employee specialization. These findings agreed with Mclovr (2013) who sought to show that specialization through outsourcing allowed an organization to concentrate on areas of the business that drove competitive advantage and outsourced peripheral processes enabled companies to leverage on the specialist skills of vendors. Tiwana and Keli (2007) also affirmed that ITO enabled employee specialization in their jobs by removing non-core activities from the focus of the organization operations. Lacity et al. (2009) stated that careful selection of service provider with cutting-edge technologies and skills could provide access to world-class capabilities and specialist resources, which could reduce the risk of failure, while at the same time overtake competitors on the technological front.

The findings on effect of ITO on internal processes in the commercial banks in Kenya showed that ITO reduced operation cost, enabled focus on their core business and enhanced efficiency and productivity. These findings affirmed Lacity et, al. (2009) teachings who sought to show that ITO enabled the client to get lower cost base of external providers which allowed reduction in IT operation cost and total cost of IT ownership. Knittel and Stango (2007) examined the impact of ITO on productivity in the specialized case of the credit union industry. They argued that ITO drove productivity growth not just via capital deepening, but also through the reorganization of the production of IT services in favour of external provision.

The findings on effect of ITO on customer satisfaction in the commercial banks in Kenya showed that ITO doesn't necessarily bring customer satisfaction, customer loyalty because ITO doesn't interface directly with external customers.

The findings on effects of ITO practice on financial performance in the commercial banks in Kenya revealed that ITO increased ROE, ROA and NIM which in turn increased profitability of the bank because the shareholder wealth is invested well. These findings affirmed Pounder

et al.,(2011), Sallimat et al., (2008), Jiang et al., (2006) and Wang et al., (2008) teachings who sought to show that outsourcing had a direct relationship with firm performance, i.e. increase in IT outsourcing would cause an increase in performance and vice versa.

CHAPTER FIVE: CONCLUSION AND RECOMMENDATIONS

5.1 Achievements

The study sought to determine IT outsourcing practices in the commercial banks, to establish the effect of ITO on financial performance and non-financial performance and to propose critical success guidelines for ITO process. The study engaged the use of a descriptive survey research design in order to obtain the necessary data as it facilitated primary data collection as a means of getting into the research objectives.

The population under study included the mainstream employees divided based on their departments in the 14 commercial banks. A sample size of 140 employees was used, out of which 131 responded. Primary data was collected by the use of questionnaires which were pilot tested to ensure that there was reliability as well as validity of the data collected. Secondary data was collected from the financial reports of the 14 banks. ROI, ROE and NIM were the financial indicators that were used to analyse the financial performance of the banks. The data was present it in tables, graphs and figures.

The findings showed that Kenyan banks outsourced various IT services which include Helpdesk support, Connectivity, ATM management, Application Management, IT security and Database management among others. Connectivity, Helpdesk support were some of the services that were highly outsourced in the 14 commercial banks in Kenya.

Additionally the findings revealed that, the main drivers for ITO in the commercial banks were so that the banks could focus on their core competences and reduce operational of cost. Other reasons for IT outsourcing in the commercial banks included access to specialized skill, faster reaction to technology, improved quality of service and risk reduction.

The findings on the challenges of IT outsourcing for Kenyan banks revealed that indeed outsourcing was bound to bring about loss of critical skills, loss of control, inadequate capabilities of service providers, failure to realize the hidden costs, contract management, security and cultural issues and finally inadequacy of cost and benefit analysis systems. The challenges varied in the different commercial banks however lack of a proper cost benefit analysis and security issues were dominant.

The findings on the effect of ITO and non-financial performance revealed that indeed outsourcing had a positive and significant relationship on learning and growth, internal processes. IT outsourcing and customer perspective had a positive but weak relationship.

The findings on the effect of ITO and financial performance revealed that indeed outsourcing had a positive and significant relationship on NIM, ROA and ROE which were some of the financial indicators of profitability. Therefore IT outsourcing could bring about profitability in the commercial banks in Kenya.

5.3 Conclusion

The study concludes that Kenyan banks outsourced various IT services which include helpdesk support, connectivity, ATM management, database management and application management.

IT outsourcing in the banking sector led to reduced operation costs, flexibility in term of technology change, enabled banks to focus and/or develop core competencies, and get access to specialized skill.

The study further concludes that indeed IT outsourcing was bound to bring about loss of critical skills, loss of control, inadequate capabilities of service providers, failure to realize the hidden costs generated by the contract, difficulty in obtaining organizational support, and inadequacy of cost and benefit analysis system if not well managed.

Finally it can be concluded that indeed IT outsourcing has a positive significant effect on financial and non-financial organization performance. It was also established that IT outsourcing led to profitability, cost reduction, service availability, faster reaction to technology, and access to specialized vendors, efficiency and increased ROE, ROA and NIM.

5.4 Recommendations

The banking industry being a growing sector in Kenya as well as the whole world brings about the need for careful examinations of various ways of making it more competitive and therefore profitable. The researcher believes that IT outsourcing offers one way to enhance growth in this sector.

In order for the banking industry to get the full experience in IT outsourcing the researcher recommends that the banking should develop better ways of managing the outsourcing arrangements. The selection process of outsourcing service providers needs to be critically re-

examined to ensure that it leads to the selection of competent and effective service providers. The contracts need to be prepared well incorporating all required specifications; they should also be monitored effectively for compliance and performance. Maintaining a proper relationship between the client and vendor is also important as it ensure mutual trust and better communication.

In light of the findings, the study recommends that banks should put in place measures to ensure that outsourced services are clearly documented and that there is a transfer of knowledge to the internal IT staff so as to avoid over reliance on service providers and loss of control especially during the transition period.

The study also acknowledged that the banking sector as already mentioned is bound to grow as time goes by. This therefore means that the future of IT outsourcing is likely to be brighter since there is more to be done in this sector. In this regard the researcher recommends that the banks should have proper tool that can be used to measure the effect of IT outsourcing on the banks performance.

5.5 Limitations

This study uses three financial firm-level performance measures ROA, ROE, NIM. Another limitation is that the study does not explore if different types of IT outsourcing categories have different influence on banks performance.

5.6 Suggestions for Further Research

Future study can investigate the IT outsourcing impact on the performance measurements using other financial performance indicators. It might be meaningful to know which type of IT outsourcing has the most impact on banks performance, which can serve as guidance of the IT outsourcing practice in the banking.

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Appendix 1: Questionnaire

PART ONE: BACKGROUND INFORMATION & FEATURES OF BANKING

Kindly, fill all the questions either by ticking (✓) in the boxes or writing in the spaces provided.

Name (Optional) í

1. Gender? Male () Female ()
2. Age? (years) 20-25 years 26-30 years 31-35 years 36 years and over

Name of the Bank (Optional) _____

1. Please specify the type of institution by ticking in the box

- a. Publicly Owned Bank []
- b. Privately owned bank []
- c. Other (Please specify) _____

2. Years of Operation of the Bank

- a. Less than 10 years []
- b. 11 ó 20 []
- c. 20 ó and above []

3. Please indicate your level of education

- a. Diploma []
- b. Bachelor []
- c. Masters []
- d. Doctorate []
- e. Other (Please specify) _____

4. How long have you been working in the bank?

- a. Less than 2 year []
- b. 3 ó 5 years []
- c. 6 ó 8 years []
- d. 9 years and above []

5. Does your bank have branches all over Kenya?

- a. Yes []
- b. No []
- c. Don't Know []

6. Does your Bank operate internationally?

- a. No []
- b. East African region only []
- c. Africa only []
- d. The whole world []

PART TWO: IT SERVICES THAT ARE OUTSOURCED

1. Does Your Bank Outsource any Services
 Yes []
 No []
2. Please tick all the banking services that your bank has outsourced by ticking the corresponding box.

	Yes	No	Don't Know
a. Help Desk Support	[]	[]	[]
b. Connectivity(WAN, Internet)	[]	[]	[]
c. Data Center Management	[]	[]	[]
d. IT Security and Monitoring	[]	[]	[]
e. Core Application Management	[]	[]	[]
f. Database Management	[]	[]	[]

Other (Please specify)

3. How long have you been outsourcing the above services?
- a. Less than 3 year []
 b. 4 ó 6 years []
 c. 7 ó 9 years []
 d. Above 10 years

PART THREE: THE MAIN DRIVERS FOR IT OUTSOURCING IN THE BANK

Using a scale of 1-5 tick the appropriate answer from the alternatives,
 1- Strongly Disagree 2-Dissagree 3-Uncertain 4-Agree 5- Strongly Agree

Statement	SD	D	U	A	SA
Reduce operation costs					
Reduction of operational risks					
Strategic focus and/or develop core competencies					
Access to specialized vendors					
Improve service quality					
Faster reaction to technology change					

Other (Please specify)

PART FOUR: THE CHALLENGES FACING IT OUTSORUCING IN THE BANK

1. Do you consider the outsourcing to bring challenges in the bank's operations?
 a. Yes []
 b. No []
 c. Don't Know []

2. The following statements indicate some challenges of IT Outsourcing
 Using a scale of 1-5 tick the appropriate answer from the alternatives,
 1- Strongly Disagree 2-Dissagree 3-Uncertain 4-Agree 5- Strongly Agree

Statement	SD	D	U	A	SA
Loss of control					
Loss of critical skills					
Failure to realize the hidden costs generated by the contract					
Contract Management					
Inadequacy of cost and benefit analysis systems					
Cross culture issues					
Security issues					
Inadequate capabilities of the service providers					

Please list any IT Outsourcing Challenges facing your Bank

PART FIVE: EFFECT OF IT OUTSOURCING ON ORGANIZATIONAL PERFORMANCE WITHIN THE BANK

Balanced scorecard perspectives are used to measure the non-financial performance

1. Outsourcing leads to the following: Using a scale of 1-5 tick the appropriate answer from the alternatives,
1- Strongly Disagree 2-Dissagree 3-Uncertain 4-Agree 5- Strongly Agree

Statement	SD	D	U	A	SA
Internal Processes perspective					
• Reduced operation costs					
• Focus on core function					
• Reduce operation risk					
• Efficiency and productivity					

Statement	SD	D	U	A	SA
Customer Perspective					
• Service availability					
• Customer satisfaction					
• Customer loyalty					

Statement	SD	D	U	A	SA
Learning and Growth					
• Faster reaction to change					
• Access to specialized vendors					
• Employee specialization					

Balanced scorecard perspectives are used to measure the financial performance (to be filled in by the finance department)

Kindly indicate the figures of the below financial performance metrics for the year 2009- 2013

Statement	2009	2010	2011	2012	2013
Financial perspective					
• NIM(Net interest Margin)					
• ROA(Return on Assets)					
• ROE(Return on Equity)					

Appendix 2: List of registered commercial banks as of 31st Dec 2011

Commercial Bank	Peer Group	Year Licensed
African Banking Corporation Ltd	Small	1984
Bank of Africa Kenya Ltd	Medium	1980
Bank of Baroda (K) Ltd	Medium	1953
Bank of India	Medium	1953
Barclays Bank of Kenya Ltd	Large	1953
CFC Stanbic Bank Ltd	Large	1955
Chatterhouse Bank Ltd	Small	1996
Chase Bank (K) Ltd	Medium	1991
Citibank N.A Kenya	Medium	1974
Commercial Bank of Africa Ltd	Medium	1967
Consolidated Bank of Kenya Ltd	Small	1989
Co-operative Bank of Kenya Ltd	Large	1965
Credit Bank Ltd	Small	1986
Development Bank of Kenya Ltd	Small	1973
Diamond Trust Bank Kenya Ltd	Medium	1946
Dubai Bank Kenya Ltd	Small	1982
Ecobank Kenya Ltd	Medium	2005
Equity Bank Ltd	Large	2004
Family Bank Ltd	Medium	1984
Fidelity Commercial Bank Ltd	Small	1992
Fina Bank Ltd/ GTB	Small	1986
First Community Bank Ltd	Small	2008
Giro Commercial Bank Ltd	Small	2008
Guardian Bank Ltd	Medium	1999
Gulf African Bank Limited	Small	2007
Habib Bank A.G Zurich	Small	1978
Housing Finance	Medium	1956
Imperial Bank Ltd	Medium	1992
I&M Bank Ltd	Medium	1974
Jamii Bora Bank Limited	Small	1984
Kenya Commercial Bank Ltd	Large	1986
K-Rep Bank Ltd	Small	1999
Middle East Bank (K) Ltd	Small	1980
National Bank of Kenya Ltd	Medium	1968
NIC Bank Ltd	Medium	1959
Oriental Commercial Bank Ltd	Small	1991
Paramount Universal Bank Ltd	Small	1993
Prime Bank Ltd	Medium	1992
Standard Chatered Bank Kenya Ltd	Large	1910
Trans National Bank Ltd	Small	1985
UBA Kenya Bank Limited	Small	2009
Victoria Commercial Bank Ltd	Small	1987

Source: Directory of Commercial Banks and Mortgage Finance Companies ó CBK 2011