

**DETERMINANTS FOR EFFECTIVE INFORMATION
TECHNOLOGY OUTSOURCING: A CASE OF
INTERNATIONAL BUSINESS MACHINES CORPORATION
KENYA**

CAROLINE WANJIKU MUGWE

**A RESEARCH PROJECT REPORT SUBMITTED IN PARTIAL FULFILMENT FOR
THE REQUIREMENTS OF THE AWARD OF THE DEGREE OF MASTER OF ARTS
IN PROJECT PLANNING AND MANAGEMENT AT THE UNIVERSITY OF NAIROBI**

2014

DECLARATION

This research project is my original work and has not been presented for award of any degree in the University of Nairobi or any other University.

Signed Date

Caroline Wanjiku Mugwe

L50/65690/2010

This research project has been submitted for examination with my approval as the University Supervisor.

Signed Date

Prof. G. P. Pokhariyal

School of Mathematics

University of Nairobi

DEDICATION

This study is lovingly dedicated to my beloved Parents Mr and Mrs Stephen Thuo Mugwe and my siblings Wesley and Ben who have been my constant source of inspiration. They have given me the drive and discipline to tackle any task with enthusiasm and determination. Without their love, understanding and support this project would not have been made possible.

ACKNOWLEDGEMENT

Throughout this research project, there are many people that I would like to acknowledge for continuing support and kind help that they has been offered to me. First and foremost I would like to thank my supervisor Prof. G. P. Pokhariyal for his continuous guidance and encouragement during the entire period of the program. Special thanks go to Lecturers University of Nairobi Dr. Charles Rambo, Dr. John Mbugua and Mr. Peter Makokha for their guidance on my thesis. I also wish to that all the lecturers of the University of Nairobi who taught me various courses at level of MA degree study for their guidance and from whom I have learnt a lot during the course of my study.

This study could not be accomplished without the contribution of my class colleagues, their support and encouragement is highly appreciated. I must also pass my thanks to IBM staff who guided me in sourcing for literature review material, which enabled me to access the relevant information necessary for successful accomplishment of the task.

My appreciation also goes to the members of staff of both IBM Staff in the. Many thanks to Neeraj Sharma, Chethan Shetty and Anil Sharma, Project Executives of the IBM Airtel Africa Account, for their extensive mentorship values that have positively inspired my life and for the opportunity to work with IBM.

My thanks also go to IBM management for giving me the opportunity to carry out this study. Lastly I am forever grateful to my parents, Stephen Thuo Mugwe and Rose Wanjiru Mugwe for laying valuable and holistic foundation for my future development and growth and to my siblings, Wesley and Ben for their love and understanding and who always stepped in for me during my busy schedule, thank you very much.

ABSTRACT

Information Technology Outsourcing has been accepted as part of modern business practices. However, the associated projects are not an easy task to manage and many projects fail even though there is a lot of research within the area. This is attributed to lack of technical capacity and need to deliver quality service at a minimal cost. In the current decade, holistic Information Technology Outsourcing appears to be losing ground and as a result other options are being considered and sought, such as selective outsourcing. This research study focused on the International Business Machines Corporation (IBM), one of the top Information Technology Enterprises in the world and more specifically, the study was based in the operations in Nairobi. The purpose of this study was to assess determinants that contribute to effective Information Technology Outsourcing with reference to the International Business Machines Corporation (IBM). The study used descriptive design. The target population composed of 80 management staff from which stratified sampling technique was used to obtain a sample of 66 respondents. From each stratum, simple random sampling was used to select the respondents for the questionnaires. Primary data was collected using questionnaires. The quantitative data in this research was analyzed by descriptive statistics using statistical package for social sciences SPSS (V.21.0). The qualitative data took an exploratory/conceptual content analysis process. In addition the study used multiple regression analysis to assess the relationship between the variables. The study found out that partnership affects effective IT outsourcing at IBM to a great extent (54.5%) and that degree of interdependency influence effective IT Outsourcing at IBM Kenya to a very great extent (mean score = 4.525). Mutual trust, core competencies complementation, sharing of principles, sharing of common values, cooperation ideas and exchange of organizational and managerial know-how influenced effective IT outsourcing to a great extent. The study also found out that strategic agility affected the effective IT outsourcing to a very great extent (40%). The study finally found out that technology shifts affected the success of effective IT outsourcing in IBM to a great extent (41.8%). The study concluded that The regression equation above has established that top management commitment and support had the highest influence on effective IT Outsourcing closely followed by strategic agility, then partnership, then technology shifts while communication had the lowest influence on effective of IT Outsourcing. The study recommended that corporations and companies should invest in training their employees and encourage them to participate in decision making. The study also recommended that organizations should frequently evaluate process improvement methods to ensure their effectiveness and reliability and further aim at reducing failure demand. The study also recommended that organizations should leverage their assets, resources and capabilities before entering into a partnership as this enables each party to share their knowhow to achieve synergy. The study finally recommended that this study is adopted for micro small and medium enterprises to investigate the determinants for effective Information Technology Outsourcing. Another suggestion for further research should be done on the performance level of companies/corporations that have outsourced Information Technology.

TABLE OF CONTENT

	Page
DECLARATION.....	ii
DEDICATION	iii
ACKNOWLEDGEMENT	iv
ABSTRACT.....	v
TABLE OF CONTENT	vi
LIST OF TABLES	x
LIST OF FIGURES	xi
LIST OF ABBREVIATIONS.....	xii
CHAPTER ONE	1
INTRODUCTION	1
1.1 Background of the Study	1
1.2 Statement of the Problem.....	7
1.3 Purpose of the Study	8
1.4 Study Objectives	9
1.5 Research Questions.....	9
1.6 Significance of the Study	9
1.7 Basic Assumptions of the Study	10
1.8 Delimitation of the Study.....	10
1.9 Limitations of the Study.....	10
1.10 Definition of the Terms.....	11
1.11 Organization of the study.....	12
LITERATURE REVIEW	13
2.1 Introduction.....	13
2.2 Partnership and Effective Information Technology Outsourcing.....	13
2.3 Strategic agility and Effective Information Technology Outsourcing.....	15
2.4 Technology Shifts and Effective Information Technology Outsourcing.....	18
2.5 Communication and Effective Information Technology Outsourcing	21

2.6 Top Management Commitment and Support and Effective Information Technology Outsourcing.....	23
2.7 Theoretical Orientation	25
2.8 Conceptual Framework.....	26
Clarity of communication	28
Clear mutual expectations.....	28
2.9 Knowledge Gap	29
2.10 Summary of Literature Review.....	29
CHAPTER THREE	31
RESEARCH METHODOLOGY	31
3.1 Introduction.....	31
3.2 Research Design.....	31
3.3 Target Population.....	31
3.4 Sample Size and Sampling Procedure	32
3.4.1 Sample Size.....	32
3.4.2 Sampling Procedure	33
3.5 Data Collection Instruments	33
3.5.1 Pilot Testing	34
3.5.2 Validity of Research Instruments.....	34
3.5.3 Reliability of Research Instruments.....	34
3.6 Data Collection Procedure	35
3.7 Data Analysis Techniques.....	35
3.8 Ethical Considerations	36
3.9 Operationalization Definition of Variables.....	38
- Clarity of communication.....	39
- Cost savings (staff and technology).....	39
- Client satisfaction	39
- Improved productivity	39
- Spreading risk	39
- Increasing flexibility.....	39

- Improving quality	39
- Reducing the risk of technological obsolescence	39
- Facilitating access to technology	39
CHAPTER FOUR.....	40
DATA ANALYSIS, PRESENTATION AND INTERPRETATION	40
4.1 Introduction.....	40
4.2 Demographic Characteristics of Respondents	40
4.3 Partnership and Effective Information Technology Outsourcing	40
4.4 Strategic agility and Effective Information Technology Outsourcing.....	42
4.5 Technology Shifts and Effective Information Technology Outsourcing.....	43
4.6 Communication and Effective Information Technology Outsourcing	45
4.7 Top Management Commitment and Support and Effective Information Technology Outsourcing.....	46
4.8 Effectiveness of IT Outsourcing	48
4.9 Regression Analysis.....	49
CHAPTER FIVE	52
SUMMARY OF FINDINGS, DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS.....	52
5.1 Introduction.....	52
5.2 Summary of Findings.....	52
5.3 Discussion.....	54
5.3.1 Partnership and Effective Information Technology Outsourcing	55
5.3.2 Strategic Agility and Effective Information Technology Outsourcing	55
5.3.3 Technology Shifts and Effective Information Technology Outsourcing	56
5.3.4 Communication and Effective Information Technology Outsourcing.....	57
5.3.5 Top Management Commitment and Support and Effective Information Technology Outsourcing.....	57
5.4 Conclusion of the Study.....	58
5.5 Recommendations of the Study	60
5.6 Suggestion for Further Studies.....	61

REFERENCES	62
APPENDIX I	67
LETTER OF TRANSMITTAL OF DATA COLLECTION INSTRUMENT	67
APPENDIX II	68
RESEARCH QUESTIONNAIRE	68
APPENDIX III.....	73
LETTER AUTHORIZING RESEARCH	73

LIST OF TABLES

	Page
Table 3. 1: Target Population.....	32
Table 3. 2: Sampling Frame.....	33
Table 3. 3: Operationalization Table	38
Table 4.1: Extent That Partnership Affects the Effective It Outsourcing At IBM	41
Table 4.2: Extent That Partnership Aspects Influence Effective IT Outsourcing At IBM.....	41
Table 4.3: Extent That Strategic Agility Affect the Effective IT Outsourcing.....	42
Table 4.4: Extent That Strategic Agility Aspects Influence Effective IT Outsourcing In IBM ...	43
Table 4.5: Extent That Technology Shifts Affect the Effective IT outsourcing In IBM.....	44
Table 4.6: Extent That Technology Shift Aspects Influence Effective IT Outsourcing In IBM..	44
Table 4.7: Extent That Communication Affect the Effective IT Outsourcing	45
Table 4.8: Extent That Communication Aspects Influence Effective IT Outsourcing.....	46
Table 4.9: Extent That Top Management Commitment Affect the Effective IT Outsourcing.....	47
Table 4.10: Extent That Aspects of Management Influence Effective IT Outsourcing	47
Table 4.11: Extent That IBM Is Successful In Various Aspects of IT Outsourcing	48
Table 4.12: Model Summary	49
Table 4.13: ANOVA Results	50
Table 4.14: Coefficient of Regression	50

LIST OF FIGURES

	Page
Figure 1: Conceptual Framework	28

LIST OF ABBREVIATIONS

BPO	-	Business Process Outsourcing
BTK	-	Bidirectional Transfer of Knowledge
CSC	-	Computer Sciences Corporation
ERP	-	Enterprise Resource Planning
GBS	-	Global Business Services
GDP	-	Gross Domestic Product
GTS	-	Global Technology Services
IBM	-	International Business Machines
ICT	-	Information and Communication Technology
IT	-	Information Technology
ITO	-	Information Technology Outsourcing
NY	-	New York
SO	-	Strategic Outsourcing
SPPS	-	Statistical package for social sciences
US	-	United States
XP	-	Extreme Programming

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The history of Information Technology Outsourcing (IT Outsourcing) is deeply embedded in the history and growth of the Modern Business Enterprise, which sprang up in the latter half of the 19th Century in India. The first use of outsourcing in recent history was in the 1950s with time sharing (Abrams, 1964). It lasted for 25 years, but as technology continued to advance, so did new outsourcing ideas e.g. In the 1980s, major consulting firms, such as Arthur Andersen, invented remote management services. According to Bergkvist and Fredriksson (2008), IT Outsourcing is a reasonable consequence of the globalization and the partnership between the participating actors and is of key importance for the overall efficiency and competitiveness of business activities.

It is a truism that Information Technology (IT) has transcended its administrative support function and has moved toward playing a more central role of business operations. Information Technology Outsourcing is now among the prevalent practices in the global business today and it becomes an overall managerial strategy in the search for global competitiveness nowadays. It is found that business organizations decide to transfer IT services to other firms identified as “vendors” not only because of cost-related advantages but also because outsourcing of knowledge-intensive work also takes place in the organizational areas of core competency like applied research & development. The rationale behind outsourcing of knowledge-intensive services is to form alliances through which to take advantage of or to add value by, the mature practices of outsourcing partners and to benefit from the complementary skills of outsourcing vendors (Lahiri and Kedia, 2011).

1.1.1 Global Perspective

There has been a rapid growth in outsourcing globally particularly in the management of IT (Suhaimi, Husnayati & Muzzafar, 2007). If the internal IT operations are not a core competence of an organization, outsourcing some of the IT functions is considered as a way of coping with the constant technological evolution and the pressure for constant increase of the internal IT competence.

A common understanding of the typical offshore outsourcing implies a transfer of business activities and/or processes by client organizations, that is, outsourcers to specialized overseas providers, that is, vendors, with a primary motive of operating costs reduction. With the advance of time, however, the motivation has expanded its range involving also focus on outsourcer's core competences, enhancing product quality and business flexibility, reducing time to market, sharing risk, etc. and the objectives of IT Outsourcing have been converted from routine tasks such as help-desk, data entry, standardized IT functions, etc. to complex analytical work, product design and development activities (Lahiri & Kedia, 2011).

Outsourcing has progressed in a strategic way where collaboration and partnership between the client and vendor are targeted to the achievement of mutual goals – which is especially valid for Information Technology Outsourcing. From this point of view, a long-term relationship based on trust and cooperation is required in order to gain a sustainable competitive advantage. Ishizaka and Blakiston (2012) have identified that the excellence of outsourcing partnership is crucial to ensure long-term success, although in many cases the partnering organizations lack the capability to achieve such an excellence.

According to Adelakun and Iyamu (2012), the shift of IT Outsourcing from sites in the US and Western Europe to offshore locations such as India, the Philippines and China continues to be significant. Different countries are slowly entering the race to become the next offshore outsourcing hotspot. This includes places such as Ghana, Brazil, Argentina, Mexico and South Africa.

According to Barako and Gatere (2008), IT and customer support services are fast becoming the most outsourced services by enterprises in Africa. These two service categories require outsourcers to procure necessary hardware and software to support the provision of IT systems and contact centers. Information Technology Outsourcing is becoming popular as new emerging trends such as unified communications, managed services, cloud computing (that is, hosted data centres) and enterprise mobile applications arise as new solutions to assist enterprises in reducing operations expenditure. Nevertheless, the deployment of such solutions requires significant investments in network infrastructure in order to build new systems and/or integrate them into existing IT architecture of enterprises. Information Technology Outsourcing is therefore a unique and innovative area to generate new revenue streams for channel partners, including internet service providers (ISPs), system integrators and network operators.

Information Technology Outsourcing has, all in all, become an emerging area of business for telecommunication service providers (vendors, network operators, ISPs, and system integrators) in Africa. With the global and African economy recovering, IT Outsourcing will transition from a “nice to have” to an essential part of the business environment. However, continuous innovation in new outsourcing services is critical with the advancement of communication and IT technologies in the market.

1.1.2 Regional Perspective

Information Technology Outsourcing is fast becoming one of the leading IT based services for developing countries. As Africa struggles to position itself as an outsourcing destination for global clients in Europe and North America, Indian companies are raking in the few local contracts up for grabs (Mapetla, 2007). After considering the bottom (enterprises) and the mid-layer (channel partners) of the outsourcing business value chain, technology vendors such as Ericsson, Cisco, IBM and Microsoft see themselves sitting at the upstream in many African countries. They all have the opportunity to start providing the required equipments, applications and maintenance services to ISPs, system integrators and network operators, who are directly interacting with enterprise end-users (Iyamu & Roode, 2010).

In a study of the critical success factors for Information Systems Outsourcing management, Smuts (2010) established that Outsourcing has become one of today's most powerful, organization shaping management tools and more so in South Africa. Information Technology Outsourcing can be seen as a contract service agreement in which an organisation hands over the majority of IT responsibilities to an external company. These contracts are long-term agreements designed to give higher control and transparency on costs, generally with a fixed price arrangement. In the selective outsourcing model, organisations may choose to outsource part of their IT.

In another study, Pengilly (2010) indicates that there is an element of uniqueness within the higher education environment, and that the institutions in South African face challenges in IT, specifically with relation to skill shortages. Furthermore, it finds that there are areas where IT Outsourcing can provide a benefit and assist in alleviating the challenges.

1.1.3 Local Perspective

In Kenya, the Information and Communication Technology (ICT) sector has seen phenomenal growth in recent years (Onsongo, 2009) and the Ministry of Information and Communication, in its ICT Strategy Paper of 2006, noted that Kenya is emerging as one of Africa's forerunners in the development of Information Technology and, with the exception of South Africa, has one of the fastest growing Internet sectors in Africa.

According to Muchai (2012), ICT outsourcing is a major part of outsourcing decisions by commercial banks operating in Kenya and has registered a rapid growth recently. According to the paper, there is significant rise in IT Outsourcing activities in most services sectors including banking, accounting, communications, manufacturing, and transportation in Kenya. This growth is expected to continue especially with the phenomenal growth on mobile telephony experienced in the country. The Minister of Information and Communication has estimated that by 2015, the Business Process Outsourcing sector in Kenya will generate a Gross Domestic Product of about KES 100 billion and employ 37,500 people (Senelwa, 2010). It is however noted that despite this growth and characteristic of many developing countries, there is little documented information

on IT Outsourcing and little regulatory guideline on the same in Kenya (Barako and Gatere, 2008).

As an indication of how important this sector is to Kenya's economic growth, BPO is one of the pillars in the government's Vision 2030 document. Kenya has also developed a policy framework and defined some strategic directions (Kenya ICT Strategy, 2006), one of which explicitly focuses on Business Process Outsourcing (BPO) as a key opportunity for realizing the country's ICT objectives. Kenya, impeded in the ITO industry to-date by poor and expensive communication links to the rest of the world, is hoping that the arrival of the fiber-optic cable will boost its status as the region's top economy. Kenya hopes that this, plus cheap labour, clear accents and customer fatigue with Indian call centers could help it hook into this multi-billion dollar industry (Waema, 2013).

Sang (2010) revealed that through outsourcing, the universities are able to cut costs, improve efficiency and meet their rising demands for greater accountability. The major challenges noted in outsourcing included negative attitude of staff, poor monitoring and evaluation, non-cooperation by students to the outsourced and interference by community.

The phenomenon of IT Outsourcing in Kenya can be described as being in its infancy. Whereas instances of Business Process Outsourcing, for instance in the banking sector (Barako and Gatere, 2008) can be said to have taken root, many institutions are still experimenting with the 'fancy' idea of outsourcing.

The International Business Machines Corporation (IBM) is one of the oldest IT companies in the United States (US) with more than 400,000 employees worldwide with the headquarters located in Armonk, New York (NY). IBM was incorporated on June 16, 1911, as an Information Technology company and is one of the largest IT enterprises worldwide with business in hardware, software, and services. IBM creates business value for clients and solves business problems through integrated solutions that leverage information technology and deep knowledge of business processes. IBM solutions typically create value by reducing a client's operational costs or by enabling new capabilities that generate revenue. These solutions draw from an

industry-leading portfolio of consulting, delivery and implementation services, enterprise software, systems and financing.

One of IBM's key services is Strategic Outsourcing (SO) which delivers comprehensive IT Outsourcing services dedicated to transforming clients' existing infrastructures to consistently deliver improved quality, flexibility, risk management and financial value. The company integrates longstanding expertise in service management and technology with the ability to exploit the power of new technologies from IBM systems and software, such as cloud computing, analytics and virtualization, to deliver high performance, innovation and improved ability to achieve business objectives.

With Strategic Outsourcing, IBM manages and operates other company's IT systems. –Strategic Outsourcing is the management of IT systems in a way that provides complex, customized solutions under a mutually beneficial agreement. The outsourcing agreement may include the transfer of IT employees and IT assets to IBM.

IBM operates in five segments: Global Technology Services (GTS), Global Business Services (GBS), Software, Systems and Technology and Global Financing. GTS primarily provides IT infrastructure services and business process services. GBS provides professional services and application management services. Software consists primarily of middleware and operating systems software. Systems and Technology provides clients with business solutions requiring advanced computing power and storage capabilities. Global Financing invests in financing assets, leverages with debt and manages the associated risks.

In Kenya, IBM has been directly involved in encouraging growth and development within East Africa. Nairobi office is the operations headquarters for IBM in the region and oversees eight countries including Tanzania, Uganda, Burundi, Rwanda, Ethiopia, South Sudan and Djibouti. The comprehensive line of offerings, including services, software and systems are designed for exceptional price performance, manageability and ease of use. IBM's local business partner network also has experience across multiple industries, delivering affordable and customizable solutions; developed based on industry insights.

IBM has established its presence in Kenya for over 60 years beginning with the first installation of IBM equipment at Standard Vacuum Oil Refining Company in Nairobi in 1958. In 1959, an IBM East Africa office is opened in Nairobi, Kenya, to serve customers in the former British East Africa (including Kenya, Tanganyika, Uganda and Zanzibar), Ethiopia and Sudan and fast forwarding to 2009, IBM opened a subsidiary office in Nairobi, Kenya as the company's headquarters for East Africa. Since then, IBM has worked with the Kenya government to help meet key ICT objectives in the Vision 2030 plan. In 2011, IBM announced contracts with five leading Kenyan banks for advanced technologies to support rapid growth, increase profitability and launch innovative new services such as mobile and internet banking.

As part of its ongoing expansion in Africa, in 2013, IBM (US) opened its first IBM Innovation Center in East Africa to help fuel growth and innovation in the region, providing IT businesses, developers, entrepreneurs, venture capitalists and academics with access to the latest enterprise software and hardware, training and business and marketing support. This year also marked the launch of the IBM Africa Research lab to conduct basic and applied research focused on solving problems relevant to Africa and contribute to the building of a science and technology base for the continent.

1.2 Statement of the Problem

Information Technology Outsourcing has been accepted as part of modern business practices (Willcocks & Lacity, 2009). The global market capitalization of IT Outsourcing is predicted to be more than \$260 billion in 2009 (Fisher, Hirschheim and Jacobs, 2008). However, IT Outsourcing projects are not an easy task to manage and many projects fail even though there exists a lot of research within the area probably due to problems in partnership, the companies not adopting strategic agility, technology shifts, poor communication and lack of top management commitment and support. This is attributed to lack of technical capacity and need to deliver quality service at a minimal cost. In the current decade, whole IT Outsourcing appears to be losing ground and other options are being considered and sought, such as selective outsourcing.

Cullen, Seddon, and Willcocks, (2005) noted that the effective IT outsourcing has been mixed. Hirschheim and Lacity (2000) found that a large number of IT Outsourcing contracts were being re-negotiated or terminated. Failure rates for the outsourcing industry as a whole have been reported as high as 50% (Hall, 2003). Yet, despite the high failure rate, institutions world over seem to be driven to continue in IT Outsourcing. Barako and Gatere (2008) also noted that in Kenya there is no regulation guiding outsourcing. Ndifet (2004) in his study of outsourcing in Cameroun noted that IT Outsourcing in developing countries may be viewed as risky as there are virtually no regulations guiding outsourcing.

Information Technology Outsourcing has well been researched in the context of developed countries. However, only a few studies were found which reported on practices of IT Outsourcing in developing countries (Kim & Park, 2003; Khalfan, 2003; Suhaimi, Husnayati & Muzzafar, 2007). A couple of years ago, confidence was running high that Africa would soon be winning a barrage of lucrative outsourcing contracts to serve clients in the United States and Europe. These global ambitions have faltered due to the fact that most of the IT firms were small and not competent enough to handle large IT projects. In Kenya, as in other developing nations, there are few studies on outsourcing in financial institutions and even these have mainly focused on human resources and general outsourcing activities.

The practice of Information Technology Outsourcing has been extensively documented in the business periodicals, but there is scant attention provided to articulate its determinants. In other words, we know the phenomenon in some detail but we do not fully grasp the set of determinants for effective Information Technology Outsourcing which the study sought to establish by focusing on and more specifically on the IBM.

1.3 Purpose of the Study

The purpose of this study was to assess determinants for effective Information Technology Outsourcing with reference to the International Business Machines Corporation (IBM) Kenya.

1.4 Study Objectives

The study was guided by the following objectives, to:

- i. Establish the influence of partnership on effective Information Technology Outsourcing.
- ii. Ascertain the influence of strategic agility on the effective Information Technology Outsourcing.
- iii. Examine the influence of technology shifts on effective Information Technology Outsourcing.
- iv. Determine the influence of communication on effective Information Technology Outsourcing.
- v. Establish the influence of top management commitment and support on effective Information Technology Outsourcing.

1.5 Research Questions

This study attempted to answer the following research questions:

- i. What is the influence of partnership on effective Information Technology Outsourcing?
- ii. How does strategic agility influence effective Information Technology Outsourcing?
- iii. How do technology shifts influence effective Information Technology Outsourcing?
- iv. What is the influence of communication on effective Information Technology Outsourcing?
- v. To what extent does top management commitment and support influence effectiveness of Information Technology Outsourcing?

1.6 Significance of the Study

The study is expected to yield information which may be of much value to Information Technology Outsourcing (ITO) firms for future improvement in the field of ITO. This study may contribute to enhancement of success rates in outsourcing engagements undertaken by the organizations. It may contribute to the growing body and knowledge pool for outsourcing service providers. In addition, this study may also yield information for direct use by other entities in the

country which are faced with similar operating environment like that in ITO firms. The findings of this study would help in positioning IT Outsourcing as the next form of business process outsourcing. It will also shed some light on managerial challenges and opportunities faced by ITO firms in Kenya.

Future investors in this field may also find a point of reference as they draw policies, procedures and strategies of entry. Managers and other stakeholders would also be able to understand better the challenges faced in this field and draw best approaches for overcoming them. It is also important for the government as it seeks to promote Kenya as a global outsourcing destination.

The study also contributes additional knowledge in the discipline of outsourcing by exploring additional factors promoting its use. To the academician and researchers, the study would be used for further research into areas such as outsourcing of services in companies. The study is also likely to establish areas of further research in the field of outsourcing.

1.7 Basic Assumptions of the Study

The study assumed that all the questions were answered objectively with the respondents not expressing their personal interests, opinions and biases. It is also assumed that the subjects of the study would be willing to respond to the questions raised in the questionnaire.

1.8 Delimitation of the Study

This study set out to analyze the determinants for effective Information Technology Outsourcing with reference to the IBM. The study was limited to five variables that is; partnership, strategic agility, technology shifts, communication and top management commitment and support. The study was carried out in IBM located in Nairobi.

1.9 Limitations of the Study

The study encountered time constrain as the period allocated for the study was limited and had to combine the study and work given that the researcher was employed. The study therefore focused on a small proportion of the total population as a representative of all the possible

respondents. The study also encountered financial constraints in the research process given that the researcher was self-sponsored.

1.10 Definition of the Terms

Communication Two-way process of reaching mutual understanding, in which participants not only exchange (encode-decode) information, news, ideas and feelings but also create and share meaning. In general, communication is a means of connecting people or places.

Information What is conveyed or represented by a particular arrangement or sequence of things. It refers to Data that is accurate and timely, specific and organized for a purpose, presented within a context that gives it meaning and relevance, and can lead to an increase in understanding and decrease in uncertainty.

Information System A system that uses the resources of people, hardware, software, data and network to perform input, processing, output, storage and control activities. These systems are used for planning, forecasting and managing the organization, such as marketing planning and financial analysis.

IT Outsourcing This is as an act of delegating or transferring some or all of the IT related decision making rights, business processes, internal activities, and services to external providers, who develop, manage, and administer these activities in accordance with agreed upon deliverables, performance standards and outputs, as set forth in the contractual agreement.

Management support This is when high level managers in a corporation seek to help lower-level employees to develop a certain behavior or assist them perform their duties.

Partnership

A type of business organization in which two or more individuals pool money, skills, and other resources, and share profit and loss in accordance with terms of the partnership agreement. In absence of such agreement, a partnership is assumed to exist where the participants in an enterprise agree to share the associated risks and rewards proportionately.

Strategic agility

The ability for companies to stay competitive in their business by adjusting and adapting to new innovative ideas and using these ideas to create new products and services as well as new business models.

1.11 Organization of the study

The study project was organized into three chapters, each of which contains specific information.

Chapter one contains the introduction to the study. It gives background of the study, statement of the problem, purpose of the study, objectives of the study, research questions, significance of the Study, delimitations of the study, limitations of the study and the definition of significant terms.

Chapter two reviews the literature based on the objectives of the study. It further looks at the conceptual framework.

Chapter three covers the research methodology of the study. The chapter describes the research design, target population, sampling procedure, tools and techniques of data collection, pre-testing, data analysis, ethical considerations and finally the operational definition of variables.

Chapter four discusses the interpretation and presentation of the findings. This chapter presents analysis of the data and also provides the major findings and results of the study.

Chapter five presents the discussion of key data findings, conclusion drawn from the findings highlighted and recommendation made there-to. The conclusions and recommendations drawn were focused on addressing the objective of the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter provides an extensive literature and research related to determinants for effective Information Technology Outsourcing. This literature review summarizes a diverse spectrum of views about Information Technology Outsourcing. The chapter is thus structured into theoretical and empirical review around the study variables. In this second chapter, relevant literature information that is related and consistent with the objectives of the study is reviewed. Important issues and practical problems are brought out and critically examined so as to determine the current facts. This section is vital as it determines the information that link the current study with past studies and what future studies will still need to explore so as to improve knowledge.

2.2 Partnership and Effective Information Technology Outsourcing

This factor reflects the degree of dependency of the activities of client organization from the operations of the vendor organization supplying a high technology service as a subject of the outsourcing agreement. This interdependence has a clear bidirectional nature – often in practice the vendor organization is strongly dependent on the realization of contracted service. It is particularly valid in cases when the vendor is serving one key client or diversification of the vendor services/client was not achieved.

Client firms recognize the need to engage multiple vendors to manage all of their outsourcing needs. The greater frequency of such multi-vendor outsourcing arrangements may be due to a variety of forces. For example, IT vendors may be changing their business strategies to focus on their own core competencies. By teaming with other IT vendors whose core competencies complement their own, IT vendors may be best able to provide comprehensive IT services to their clients. Conversely, client firms (those contracting for outsourcing services) may deliberately set a strategy of having their IT needs serviced by multiple vendors (Cross, 1995), and they may choose to make explicit in their contracts that multiple vendors actively cooperate in serving them.

The sustainability and the strategic nature of outsourcing partnerships are expected to reflect the sharing of common values, principles, and cooperation ideas as elements of the organizational cultures of partner organizations. As a result of the formation of the outsourcing partnership, transformations of organizational cultures have often taken place in both client and vendor organizations. Along with the direct net benefit of the agreement having immediate effect on the economic status of the partner organizations, the sharing of common values and the exchange of organizational and managerial know-how has a significant, although indirect, long-term effect on the operation of the organizations.

Outsourcing should be viewed as a strategic partnership rather than a temporary alliance by both parties (client and vendor). Such an approach is quite beneficial, not only for future outsourcing deals but also for the level of commitment for the current deal. There are mainly two categories of studying the partnership management and quality. The first category consists of contractual parameters. Meeting the deadlines, putting contract clauses including communication channels and types, attending and participating the interim meetings and formation of contract rewards and penalties are the major parameters. The second category is about human and cultural skills. To name a few: personalization of the outsourcing contract (assigning representatives on both parties), attending social functions organized by the other party and/or by both parties, and the fine-tuning of the level (in)formality of the communication in between.

Fitzgerald and Willcocks (1994) identifies seven attributes which can lead to effective partner relationships: non-reliance on the contract as the basis of the relationship; a mutual desire to work things out and a give-and-take philosophy; the ability to work together in personal relationships terms; existence of a cultural fit between the client and vendor organizations; good treatment of the client's transferred stir a perception that the vendor understands the client's business and problems; a fair profit for the vendor ... [to prevent against] an inadequate contract. In this context we are looking at multi-vendor relationships which have occurred for many years but have been overlooked or down played. Perhaps this was because many initial outsourcing "mega-deals" called for total outsourcing to a single vendor (Huber, 1993).

Trust, as considered earlier, is a common success factor both in outsourcing and in agile values. Enhancing mutual trust leads to a more motivated vendor and in return development staff. An informal contract can be agreed upon stating that both parties should go for a relationship of mutual trust respecting each other. Main emphasis should be given on maintaining the relationship unless a catastrophic issue arises where such a document should ensure everyone to terminate the project with minimum damage. Strategic partnership is essential for today's Information Systems outsourcing deals. Because of this reason, most of the clients switch to a selective outsourcing with multiple vendors approach. Agile methods strengthen the partnership through co-operative efforts on both sides (e.g. XP). Hence, we can talk about building longer-term relationships for future deals (Barako & Gatere, 2008).

2.3 Strategic agility and Effective Information Technology Outsourcing

Agile methods initially accept the change in user requirements which then can be iteratively incorporated into the product (Agile Manifesto). This enables a potential product release ready at any time. Agile methods focus on people and communication, working software, collaboration, and adapting to change instead of processes, extensive documentation, and contract negotiation. With agile teams, clients are delivered frequent working parts of the system on a regular basis which brings flexible and variable payment methods for the client (Hazzan & Dubinsky, 2008).

Outsourcing heavily relies on documentation in terms of contractual notions which slows down this production. At the end of the day, especially with larger projects, non-contracted information is assumed as unreliable. Agile methods are advantageous for projects having weak scope definitions (Kusssmaul, Jack & Sponsler, 2004). They strengthen the partnership through co-operative efforts on both parties and hence building longer-term relationships for future deals (Martin, Biddle & Noble, 2004).

Process improvement methods despite their robust nature in terms of process maturity contained heavy documentation and extensive procedures. Moreover, planning and contract related processes play crucial roles throughout the development phases. Most of the time, changes in design are expensive and time consuming which may enable the developers start coding from scratch. In addition, metrics are always process-oriented and usually lack user focus (Suhaimi,

Husnayati & Muzzafar, 2007). Such a procedural method is time consuming and may delay the release of the software where it may be too late for the dynamically improving market to accept the product. Marketing rush, on the other hand, can yield to an end-product full of bugs.

An alternative approach is agile software development. Main philosophy of the agile approach is that it initially accepts that user requirements will change and these changes should be incorporated into the product whenever necessary by incremental and iterative processes (Smuts, 2010). This way, a potential product release is always ready. Most important system features are developed first. Daily updates and online agile tools enable the users monitor the development process easily. For successful products, agile methods include daily communication between the users and developers. Important success factors of agile processes can be summarized as people, communication, and culture. People must be trained and communicate closely with detailed awareness of the culture of the organization.

Applying agile practices for outsourced projects requires parameters like the size and nature of the project, communication and cultural awareness between the client and the vendor. Agile development is usually applied to small systems with small teams (e.g. extreme Programming). For larger projects; however, an increased level of formality should be studied (Bergkvist & Fredriksson, 2008).

Traditional software development requires a high level of discipline where agile methods make use of principles and values instead. The agile manifesto focuses on people and communication, working software, collaboration, and adapting to change instead of processes, extensive documentation, and contract negotiation. Informal interactions improve organizational communication with the reservation that the organization structure is not too hierarchical. Since the most common driver for outsourcing is fast and cheap products, working software should be produced quickly by the vendor (Lahiri & Kedia, 2011). With the increasing popularity of IT Outsourcing, vendors focus more and more on requirements specification in software development. If the client-vendor interactions increase, the number and level of detail of the requirements increase. User involvement and communication of the requirements is a critical issue especially if the system is being outsourced.

Agile development methods are preferred more for projects having weak scope definitions. Development teams adapting to agile methods do not fear frequent changes in user requirements and focuses on people and communication instead of processes and extensive documentation (Ishizaka & Blakiston, 2012).

The core of outsourcing is the contract. It is the contract itself together with its negotiation, preparation, and management what shapes the whole deal. The contract is a legal document which defines any exchange between parties enforced and ruled by the law. A standard contract includes obligatory clauses like payment, confidentiality, and guarantee procedures, but may still not be able to ensure complete success due to the dynamics of environmental factors like technology, market shares and so forth. Moreover, it is a common experience that the clients are not aware of what they want until they see the end product. Although many recommendations on how agile methods should be adapted to outsourcing are emphasized, it is the contract that makes it difficult to apply (Smuts, 2010). Major drawback is that the changes in client requirements cannot be explicitly formalized in the contract but financial procedures can be written. In addition to that, the contract should define the nature of the relationship, both parties' rights and responsibilities, and a detailed explanation of the procedures to be followed.

If agile methods are new to the development team it may be risky for a couple of reasons. Novice team members lose time but a couple of developers with agile experience can be hired immediately. On the other hand, the management may insist on a traditional serial development method where this problem can be solved by constant training and motivational meetings on agile techniques. Agile development recommendations Pengilly (2010) can be summarized as: Default costs that cannot be avoided, trigger clients to avoid small projects and outsource larger information systems to make these overheads more negligible; Documentation should be kept concise and to the point; Development teams should be coordinated for quick responses to changing requirements; In order to build early confidence, Deliverables should be produced as frequent as possible; Agility shouldn't mean that planning phase can be discarded; Face to face communication should be encouraged whenever possible; and Teams should make use of all available tools for effective communication.

Agile development principles also govern some problems. For example, as in XP, pair programming is difficult to apply between client and vendor sides especially the system is being offshored (Adelakun & Iyamu, 2012). A solution can be an onsite development team bridging between the client and the vendor.

If agile methods are preferred in an outsourcing deal then a modified version of agile principles can be adopted. This way, structural and formal advantages of traditional approaches would be merged with agility values and principles. For instance, late changes in client requirements may yield the vendor teams to put extra hours or man-power which may contradict with the initial forecast. Agile methods, although focusing on people other than processes, can be customized for an outsourced project in a way where staffing “stronger” employees can override the agile philosophy of training and motivating the weaker ones (Barako & Gatere, 2008). An important agile principle of “self-organized teams”, in outsourcing of large projects can be converted to a more hierarchical structure, still remaining self-organized with a more controlled and monitored structure.

2.4 Technology Shifts and Effective Information Technology Outsourcing

Information Technology Outsourcing allows the client organizations to refocus on their core business activities as they obtain the necessary IT competence from the vendor. This way, the strategic effect emerges from the focus on the core operations assuming the availability of a reliable IT service. The enhanced IT staff expertise of the vendor appears to be a critical factor of the partnership success. Client companies rely on the outsourcing for long-term intellectual value which is found to be more beneficial than outsourcing for cost-cutting in the short run (Manning, 2008).

According to the theory of transaction cost economics (Williamson, 1989), an organization will be likely to outsource its IT functions if it has low asset specificity, low measurement problems and low transaction frequency. Accordingly, organizations with high dependence on IT (high IT intensity) will be reluctant to give over control of a resource that is essential to the success of their business. This view is supported by Sohal and Fitzpatrick (2002) who found that industries

with high IT intensity have lower rates of IT Outsourcing expenditure compared to industries with low IT intensity.

Effective IT governance is intended to improve IT performance in organizations. By improving IT performance, organizations expect to obtain benefits from their IT such as reliable, fast and secured solutions, to acquire a rational return on investment, and to improve efficiency and productivity (IT Governance Institute, 2003). In line with this view, earlier studies reveal that effective IT governance contributes to higher return on assets, and provides firms with new business opportunities (Sampler & Weill, 2003).

Unfortunately, when IT performance does not contribute significantly to accomplishing organizational objectives, management faces an urgent need to re-evaluate the role of IT within the organization. One of the options available, recently applied in the business world, is shifting the burden of poorer internal IT performance to an outside party by outsourcing all or part of its IT. This view is supported by Loh and Venkatraman (1992) who found a negative correlation between IT performance and the degree of IT Outsourcing in American firms. Teng, Cheon and Grover (1995) empirically examined IT resource performance and its influence on the IT Outsourcing decision. They found a positive and significant correlation between poor IT performance and the decision to outsource the IT function.

Strassmann (2004) studied US companies that outsourced their IT. His study showed that companies that performed major IT Outsourcing had a decreasing profit compared to companies with a lower level of IT Outsourcing. Hall and Liedtka (2005) provides similar results that poor overall firm performance and poor cost control led organizations to outsource their IT function on a relatively large scale. A more recent study by Dahlberg and Lahdelma (2007) examined the link between IT governance maturity and IT Outsourcing degree. Their results showed that companies with a higher level of IT governance maturity outsourced their IT function more selectively compared with companies that had a lower level of effective IT governance.

Investments in IT has recently escalated, and its importance is nowhere less evident than its dramatic increase from \$55 billion to \$190 billion in the economy; in fact, IT accounts for about half of most large firms' capital expenditures (Lahiri & Kedia, 2011). Due to the enormous outlay

associated with the IT infrastructure, firms have found it necessary to adopt a better cost control approach to IT. In line with this notion, IT must be treated as a capital investment and not just an overhead of the firm. Firms have been plagued by the astronomic rise of IT expenditure in many specific IT areas that are necessary to run the business. For instance, in the area of application development, a critical problem has been the control of the cost of internally conceived software. Consequently, corporations are rationalizing their capital outlay on IT. Where possible, drastic restructuring of the traditional in-house mode of IT governance is undertaken to trim the high costs of IT infrastructure. As Hall (2008) put it: "Outsourcing can free capital tied up in data center hardware and save operating costs..."

An extremely attractive option available to firms is to outsource their IT infrastructure to value-added vendors who are more efficient in terms of managing and operating the IT. In three often-cited early cases of IT Outsourcing, American Standard reportedly saved \$2 million per year for its financial and payroll operations, Copperweld cut its systems budget from \$8 million to \$4 million, and Foodmaker slashed its data processing costs by 17% (Dibbern and Goles, 2004). Other recent cases are Wabco and American Ultramar, which trimmed their annual processing costs from \$3 million to \$1.8 million and from \$3 million to \$1.5 million respectively (Sabherwal, 2003).

With the elevation of the role of IT from the 'backroom' to the 'frontline' of business operations, firms are making IT directly accountable for its direct contribution to the overall corporate profitability. The profit-oriented posture imposed on the IT infrastructure puts intense pressure on the technology to result in tangible economic returns. With the escalating level of IT investments needed to support business in the contemporary marketplace, there is a need to reconfigure the IT infrastructure in ways that make it possible to ascertain the benefits in a clear manner (Fisher, Hirschheim and Jacobs, 2008). As IT expenditure rises rapidly over the last decade, it is not surprising that managers are more stringent than ever before in assessing the productivity of their IT infrastructure. Thus, when economic profits falls in relation to IT investments, management faces an immense need to re-evaluate the role of IT. As efficiency of organizing is tied intimately to the mode of governance, it is natural that there is a greater shift from the usual in-house management to external involvement. Indeed, it has been the view

within the practicing and consulting IT communities that "outsourcing is a key strategy that enables companies to improve return on equity" (Ndifet, 2004).

2.5 Communication and Effective Information Technology Outsourcing

Effective communication between outsourcing partners is assumed to be of crucial importance for the successful relationship. This factor is emphasized widely in the literature as a core determinant of the outsourcing partnerships' success since it amplifies the level of understanding and the adequate information exchange (Berger & Lewis, 2011). It is typically considered that communications concern mainly the client organization that should provide facilitating information to the vendor. However, the opposite is also of importance since the client decreases its degree of control over the outsourced services and functions. This way, an ineffective communication from the vendor can obstruct the outsourcing relationship.

Communication mechanisms are also important for effective IT Outsourcing as their purposes are to inform the organization as a whole about IT Outsourcing processes and decisions, and to encourage desirable behaviors in the organization (Weill & Ross, 2004). They also suggested that the more management communicate formally about the existence of IT Outsourcing mechanisms, how they work, and what outcomes are expected, the more effective are their governance processes.

Bidirectional transfer of knowledge (BTK) emerges when optimal (in terms of quantity and quality) information necessary for the realization of the service is provided through the channels of effective communication between the partners. The knowledge could have two forms: implicit, that is, informal, tacit, and explicit, that is, formal (Nonaka & Takeuchi, 1995). Special attention should be put on the way in which organizations "learn" from their partners as this appears to be one of the means for the development of key competences.

Effective IT Outsourcing requires close relationships between the business and IT so that there will be better understanding between both areas, thus creating good participation and collaboration in the organization (Callahan & Keyes, 2004). Good communication systems will

enable the two parties (business and IT) to increase each other's awareness of the importance of the other's perspective in obtaining benefits from IT (De Haes & Grembergen, 2005).

Communication is an important barrier in any outsourcing deal. In offshore outsourcing, this problem is more critical since cultural differences make it more difficult for both parties to understand each other (Kannan, 2007). Communication problems cause development teams to misunderstand client requirements. In order to minimize the effect of this risk, clients usually prefer fixed-price contracts where development is performed in a traditional way with serial stages.

Fixed-price contracts come up with the necessity of an early requirements document which is prepared by the client in great detail. The general understanding of fixed-price contracts is that they reduce risk big time. On the other hand they don't enable the clients to have control over the project. Alternatively, with agile teams, clients are delivered frequent working parts of the system on a regular basis which brings flexible and variable payment methods for the client. Most important of all, clients can track how much is spent at any time instance (Weill, 2004).

Outsourcing heavily relies on documentation in terms of contractual notions which slows down this production. At the end of the day, especially with larger projects, non-contracted information is assumed as unreliable. Traditional development methods, especially executed through process maturity frameworks lead to an extensive amount of documentation in parallel with electronic communication which - most of the time - may be insufficient in matching client and vendor expectations. The main goal is to understand the requirements (Fisher et al. 2008). It can be achieved with more brief but solid documents instead of extremely detailed specifications. Trade-off though would be increasing client-vendor (users-developers) interactions.

One trivial way is to locate some vendor teams on the client site. Travel costs may increase but communication risks will reduce. Mutually, some of the client staff could work on the vendor site. In parallel with agile processes, these teams can be rotated on a regular basis yielding to a thorough mutual understanding with stronger bonding. Corporate cultures can be recognized more in this way. On the other hand, if a system is outsourced to vendors with agile know-how, by nature, more effective communication channels are established which in return saves time in

such documentation (brief and frequent requirements in documents), forming a stronger client-vendor relationship, and increasing measurement success through regular delivery of working parts of the system. Moreover a fixed-price contract may no longer be mandatory (Callahan & Keyes, 2004).

Collaboration is very important and can be mapped onto what is called co-sourcing where client and vendor work together on the project. But it does not mean that the change in client's requirements may not be documented. Especially if the changes occur late in the project, such a collaborative environment will be of great help and the vendor teams will feel more confident in applying procedures related to changing costs-iterations-delivery time (Luftman, 2000).

2.6 Top Management Commitment and Support and Effective Information Technology Outsourcing

No partnership can be successful without a clear engagement of the top management of both partners in the outsourcing partnership goals. Client organizations (outsourcers) should assume that the dedicated management requires a strategic understanding of outsourcing partnership goals as well as capabilities for sophisticated negotiation and mediation (ITBE, 2010).

Executive leadership and its commitment are recognized as an important factor for a successful IT Outsourcing arrangement (Iakovou & Nakatsu, 2008). In an outsourcing setting the managers need to consider strategies for ensuring the discipline of the outsourcing relationship by developing such a governance structure that goes far beyond the typical operations and processes.

Many researchers have examined the critical role of senior management practices in IS success. The involvement of senior management appears to lead to effective IT planning (Cerpa & Verner 1998). A lack of senior management involvement has been shown to lead to unfavorable outcomes in IT planning, and even failure to plan for IS (Salmela, Lederer & Reponen, 2000). In the IT governance literature, a recent study by Vaswani (2003) has shown that senior management involvement had a significant positive effect on the level of effective IT Outsourcing.

In general, management support is a critical element of adoption and implementation of IT Outsourcing arrangement in an organization. Information Technology Outsourcing arrangements may remain stuck at the initial idea stage absent dedicated champions. Top management support can affect new system initiatives success by promoting employee empowerment; by facilitating employee involvement; by promoting a cultural shift and increased commitment by the organization's employees; by instituting rewards and incentives systems to affect employee behavior; by providing training and increasing communication across units and encouraging teams and teamwork in the organization. Top management support has been associated with the success of information technology diffusion within organizations, business process reengineering, virtual enterprise formation, Enterprise Resource Planning (ERP) and EMS. Support from middle-management levels is important because IT Outsourcing arrangement is related to almost all departments in an organization, and cross-departmental cooperation is important to successful practices (Sarkis, 2009).

Beer and Eisenstat (2000) mention the quality of direction, which describes multiple ways in which senior management can be ineffective. Senior management sometimes bypasses middle management, and directly obtains information from and gives orders to the lower level employees, causing ineffective communication lines in the implementation team. Additionally, this causes a situation in which conflicts are avoided and value-adding discussions on decision-making are lost. Beer and Eisenstat (2000) state that leadership in many teams does not make the necessary trade-offs they face during the adoption. Instead, they create vague strategic objectives which do not provide effective direction for adoption or formulation of sound process.

Young and Jordan (2008) confirmed that the essence of top management support is related to effective decision-making to manage IT Outsourcing arrangement and to authorize business process change. A crucial part of a successful proposal is top management support that is related to improve decision making in order to manage strategy. Top-level management responds to business processes and manages strategy. Successful mitigation or bearing of strategy is contingent upon commitment and support from top management. Moreover, commitment and

support from top management plays a key role in influencing the success in almost any initiative within an organization (Ifinedo, 2008).

2.7 Theoretical Orientation

This study was guided by a resource based-view (RBV) postulated by Fahy (2000) as its theoretical basis. According to RBV, firms “compete on the basis of “unique” corporate resources that are valuable, rare, difficult to imitate, and non-substitutable by other resources” (Bharadwaj 2000). Many studies have used RBV in the context of IT (Santhanam & Hartono 2003). In a similar theme to this study, Teng et al. (1995) examined the relationship between the performance of IT resources and IT Outsourcing decisions. They claimed that IT resources contributed significantly towards organizations achieving competitive advantage. Thus, based on the resource-based perspective, “when the performance of existing resources falls short of expectation, outsourcing can be a strategic response to fill these gaps...Applying this perspective to information resources, when information quality, Information System support quality, and other performance measures of these resources fall short of expectations, Information System outsourcing becomes a viable strategic option for the organization.

For the management of IT resources to be more valuable, less imitable, more rare, and less substitutable, governance mechanisms such as an IT strategy committee, IT steering committee and involvement of senior management in IT are required. The policies that these IT management mechanisms use to manage effectively the IT resources need to be effectively communicated to the organization and a culture of compliance with the policies needs to be encouraged. Finally, the performance of the IT resources needs to be evaluated using a corporate performance measurement mechanism. In this way, the resulting effective IT Outsourcing regime will provide a strategic resource to facilitate the organization’s competitiveness. Effective IT Outsourcing will be more likely to lead to good IT performance which in turn will contribute to better firm performance (Weill & Ross, 2004).

Resource Based View reflects the strategy of how a firm diversifies its products through exploiting its resources by contracting with others, instead of expanding its size, vis a vis outsourcing. This diversification, at the end, results in the internalization of some of the critical

resources. On the other hand, the idle resources have to be worked out and used by acquiring new business processes or applications, usually through contracting. Outsourcing helps a lot in the sense that the firm thus focuses more on the core competencies while utilizing its resources to be used in contracted applications. RBV also helps in the decision-making of outsourcing about which tasks to be outsourced and which ones have to be performed in-house (Hazzan & Dubinsky, 2008).

Resource Based View studies the strategic importance of resources an organization possesses (Meso & Smith, 2000). If this possession is sustained, the client gains power in the business domain (Espino-Rodriguez & Padron-Robaina, 2006). A client can diversify its resources via outsourcing. In the long run, such a diversification may increase the number of core competencies of the organization which in return prevents the organization to outsource similar resources (some sort of a cycle). Resource Based View can be applied to determine which resources are to be outsourced.

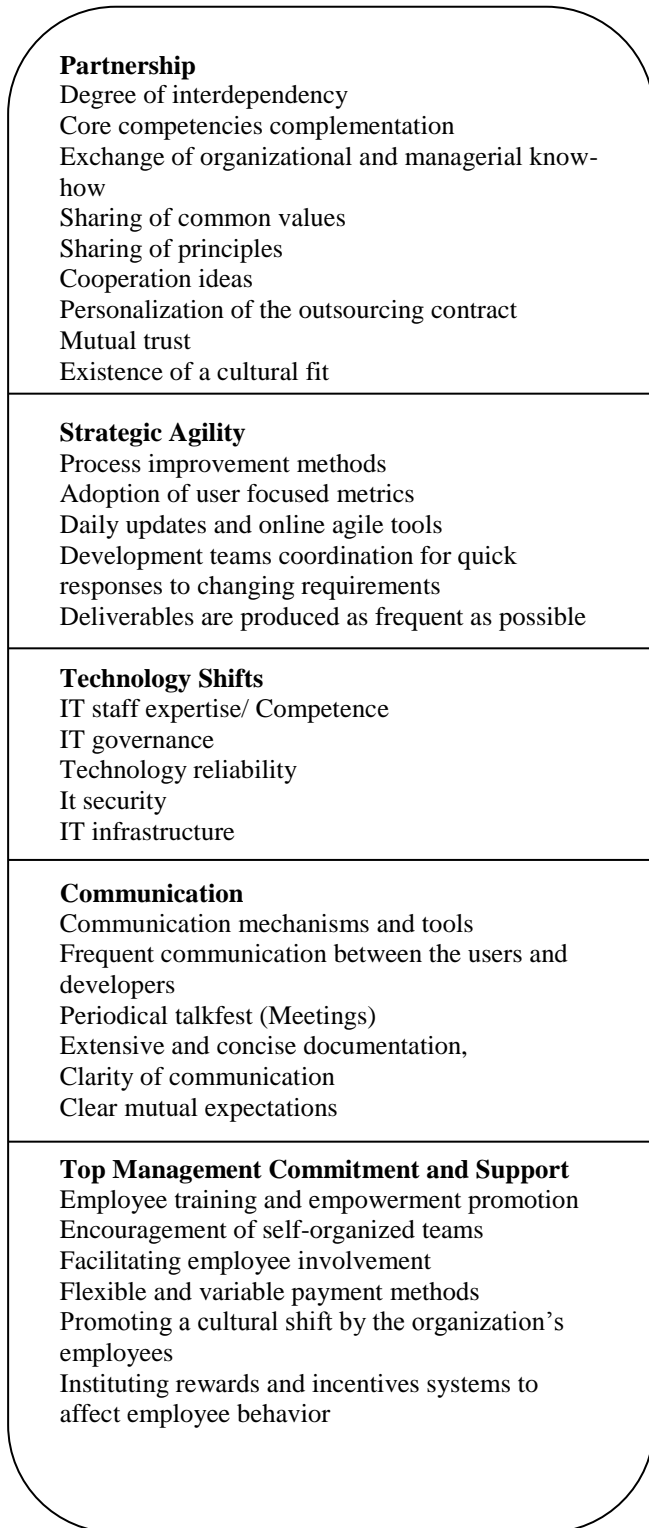
2.8 Conceptual Framework

A conceptual definition is an element of the scientific research process, in which a specific concept is defined as a measurable occurrence or in measurable terms; it basically gives one the meaning of the concept (Mugenda & Mugenda, 2003). Conceptual framework is a diagrammatic presentation of the relationship between dependent and independent variables. In this study, the dependent variable would be effective Information Technology Outsourcing. The degree of success in IT outsourcing is the main dependent (response) variable in the study. It is however commonly considered as quite difficult for operationalization and empirical measurement as far as it is of multidimensional nature. For example, Lee and Kim (2003) define the effective IT Outsourcing as the degree of satisfaction of the needs of client organization from the services provided by the vendor organization. Other points of view are also applicable, e.g. that which characterizes the outsourcing success by the degree of achievement of the overall (pan-organizational) comparative advantage through outsourcing of all or part of ICT functions of the client organization. The independent variables of the study will be partnership, strategic agility,

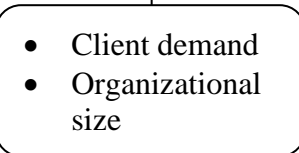
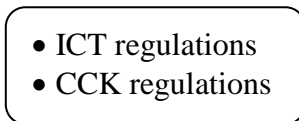
technology shifts, level of effective communication and finally top management commitment and support. The conceptual framework is presented diagrammatically in the Figure 1 below.

Figure 1: Conceptual Framework

Independent variables

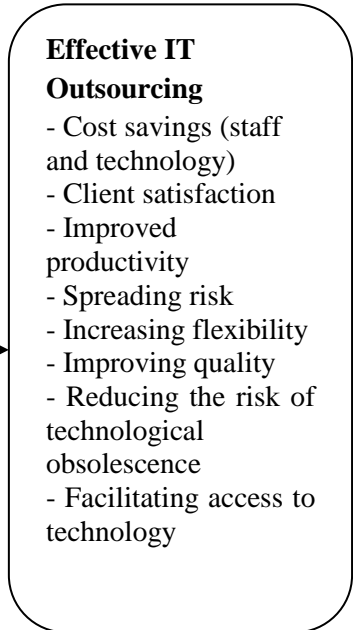


Intervening variables



Moderating variables

Dependent variable



2.9 Knowledge Gap

IT Outsourcing may be viewed as risky as there are virtually no regulations guiding outsourcing. However, there is no conclusive evidence to support the relationship between various determinants on effective Information Technology Outsourcing. Most of the reviewed studies have been conducted in developed countries whose strategic approach and financial footing is different from that of Kenya. Others are conducted in other industries other than the IT companies. The review has established a research gap in Kenya in that despite the many studies done in other areas in the world there is no study done on the determinants for effective Information Technology Outsourcing in Kenya with reference to the International Business Machines Corporation (IBM) Kenya.

2.10 Summary of Literature Review

This study was guided by the resource based-view (RBV) as its theoretical basis. Strategic partnership is essential for today's Information Systems outsourcing deals. Client firms recognize the need to engage multiple vendors to manage all of their outsourcing needs. The sustainability and the strategic nature of outsourcing partnerships are expected to reflect the sharing of common values, principles, and cooperation ideas as elements of the organizational cultures of partner organizations. Main emphasis should be given on maintaining the relationship unless a catastrophic issue arises where such a document should ensure everyone to terminate the project with minimum damage.

The enhanced IT staff expertise of the vendor appears to be a critical factor of the partnership success. With agile teams, clients are delivered frequent working parts of the system on a regular basis which brings flexible and variable payment methods for the client. Daily updates and online agile tools enable the users monitor the development process easily. For successful products, agile methods include daily communication between the users and developers. With the increasing popularity of IT Outsourcing, vendors focus more and more on requirements specification in software development.

Agile development methods are preferred more for projects having weak scope definitions. Effective IT governance is intended to improve IT performance in organizations. IT must be treated as a capital investment and not just an overhead of the firm. Firms have been plagued by the astronomic rise of IT expenditure in many specific IT areas that are necessary to run the business. With the elevation of the role of IT from the 'backroom' to the 'frontline' of business operations, firms are making IT directly accountable for its direct contribution to the overall corporate profitability.

Effective communication between outsourcing partners is assumed to be of crucial importance for the successful relationship. Communication mechanisms are also important for effective IT Outsourcing as their purposes are to inform the organization as a whole about IT Outsourcing processes and decisions, and to encourage desirable behaviors in the organization. Special attention should be put on the way in which organizations “learn” from their partners as this appears to be one of the means for the development of key competences. Communication problems cause development teams to misunderstand client requirements. In order to minimize the effect of this risk, clients usually prefer fixed-price contracts where development is performed in a traditional way with serial stages.

No partnership can be successful without a clear engagement of the top management of both partners in the outsourcing partnership goals. Executive leadership and its commitment are recognized as an important factor for a successful IT Outsourcing arrangement. Top management support can affect new system initiatives success by promoting employee empowerment.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the methodology that was used by the researcher to find answers to the research questions. In this chapter the research methodology was presented in the following order; research design, target population, sampling procedure, data collection methods, instruments of data collection and the pilot study. The chapter also explains how data was analyzed to produce the required information necessary for the study.

3.2 Research Design

This study used descriptive survey design which necessitates the collection of both qualitative and quantitative data whereby respondents were expected to describe factors attributable to effective Information Technology Outsourcing at .It involved a field survey of the target population who outlined the factors that affect Information Technology Outsourcing at IBM. A descriptive research design as defined by Kothari (2004) is a process of collecting data in order to answer questions concerning the current status of the subject in the study. This research design was considered appropriate because variables involved did not involve any manipulation and established the current status of the phenomena (Borg & Gail, 1983).

3.3 Target Population

The target population was employees of which comprised of 80 management staff. This included senior and middle level managers in various departments. These respondents were targeted as they were conversant on the subject matter of the study. Further, the respondents were accountable on the daily operation of the company. The target population was presented in Table 3.1.

Table 3.1: Target Population

	Population	Percentage
Senior Managers	24	30
Middle level managers	56	70
Total	80	100

Source: IBM, (2014)

3.4 Sample Size and Sampling Procedure

3.4.1 Sample Size

The sampling plan describes the sampling unit, sampling frame, sampling procedures and the sample size for the study. The sampling frame describes the list of all population units from which the sample was selected (Cooper & Schindler, 2003).

A sample of 66 was arrived at by calculating the target population of 80 with a 95% confidence level and an error of 0.05 using the below formula taken from Mugenda and Mugenda (2003):

From Normal distribution the population proportion can be estimated to be

$$n = \frac{Z^2 PQ}{\alpha^2}$$

Where: Z is the Z – value = 1.96

P Population proportion 0.50

Q = 1-P

α = level of significance = 5%

$$n = \frac{1.96^2 \times 0.5 \times 0.5}{0.05^2}$$

$$n = 384$$

Adjusted sample size

$$n = 384 / [1 + (384/80)]$$

$$\text{Approx} = 66$$

3.4.2 Sampling Procedure

The study employed stratified random sampling technique in coming up with a sample size of 66 respondents from a total of 80 in the specific department in IBM Airtel Africa Account. Stratified random sampling was unbiased sampling method of grouping heterogeneous population into homogenous subsets then making a selection within the individual subset to ensure representativeness (Bryman & Bell, 2003). The goal of stratified random sampling was to achieve the desired representation from various sub-groups in the population. In stratified random sampling subjects were selected in such a way that the existing sub-groups in the population were more or less represented in the sample (Mugenda & Mugenda, 2003). The method was used since the population was divided into distinct groups bearing distinct characteristics. From each stratum, simple random sampling was used to select the respondents for the questionnaires.

Table 3.2: Sampling Frame

Departments	Population	Sampling ratio	Sample
Senior Managers	24	0.825	20
Middle level managers	56	0.825	46
Total	80		66

3.5 Data Collection Instruments

The study collected both primary and secondary data. Primary data was collected using questionnaires. On the other hand secondary data was collected from computer internet database browsing, newspapers, published books, journals and magazines as well as other sources such as the sector annual reports.

Semi-structured questionnaires were used to collect primary data from the managers. In order to ensure uniformity in responses and to encourage participation, the questionnaires were kept short and structured to cover multiple-choice selections in a likert scale. The questionnaire was organized into three sections. The first section was on the demographic information followed by

another on the determinants for effective information technology outsourcing while the last one was on the effectiveness of IT Outsourcing. The questionnaires were preferred in this study because respondents included in the study were literate and able to answer questions asked adequately. According to Mugenda and Mugenda (2003), questionnaires are used commonly to obtain detailed information about a population under study.

3.5.1 Pilot Testing

The questionnaire designed by the researcher was based on the research questions and was pilot tested to refine the questions before it can be administered to the selected sample. A pilot test was conducted to detect weakness in design and instrumentation and to provide proxy data for selection of a probability sample. Mugenda and Mugenda (2003) asserted that, the accuracy of data collected largely depended on the data collection instruments in terms of validity and reliability.

3.5.2 Validity of Research Instruments

This study adopted content and construct validity to establish the validity of the research instruments. According to Somekh and Cathy (2005) validity is the degree by which the sample of test items represents the content the test is designed to measure. Expert opinion was requested to comment on the representativeness and suitability of questions and give suggestions of corrections to be made to the structure of the research tools. To establish the validity of the research instrument the researcher sought opinions of experts in the field of study especially the lecturers. This helped to improve the content validity of the data that was collected. It facilitated the necessary revision and modification of the research instrument thereby enhancing validity.

3.5.3 Reliability of Research Instruments

This study utilized the Cronbach's Alpha as the main method to establish reliability whereby reliability is increased by including many similar items on a measure, by testing a diverse sample of individuals and by using uniform testing procedures. The researcher selected a pilot group of 10 individuals from the target population to test the reliability of the research instruments using Cronbach's Alpha. The alpha value ranges between 0 and 1 with reliability

increasing with the increase in value. Coefficient of 0.7 is a commonly accepted rule of thumb that indicates acceptable reliability and 0.8 or higher indicated good reliability (Mugenda, 2008). Table 3.3 shows that the all the four variables were reliable as their reliability values exceeded the prescribed threshold of 0.6.

Table 3. 3: Reliability Analysis

Scale	Cronbach's Alpha	Number of Items
Partnership	0.798	9
Strategic Agility	0.835	5
Technology Shifts	0.819	7
Communication	0.915	6
Top Management Commitment and Support	0.8135	6

3.6 Data Collection Procedure

This study collected data using a self-administered questionnaire. The researcher read and interpreted the questions and details in the checklist for clarity. The researcher informed the respondents that the instruments being administered was for research purpose only and the responses from the respondents was kept secret and confidential. The researcher obtained an introductory letter from the University of Nairobi in order to collect data from the field and then personally delivered the questionnaires to the respondents so that they can be filled in and then collected the questionnaires later. The drop and pick later method was used in the study.

3.7 Data Analysis Techniques

Data analysis was done after data was collected and was a process used to make sense of the data. The type of data analysis tool that was used is dependent on the type of data, depending if the data is qualitative or quantitative (Walsh & Wiggins, 2003). Data collected was edited and coded using descriptive analysis methods in order to get meaningful results from the questionnaires, interview guides checklist and desktop findings. The quantitative data in this

research was analyzed by descriptive statistics using statistical package for social sciences SPSS (V. 21.0) as it was more user friendly and most appropriate for analysis of management related attitudinal responses (Newton & Jeonghun, 2010). The qualitative data took an exploratory/conceptual content analysis process which was more ideal as the information gathered from the open ended questions was large and time consuming if not well planned (Wilson, 2010). The data was then presented using tables. In addition the study used Karl Pearson's product moment correlation analysis to assess the relationship between the variables. The researcher also used multiple regression to analyze the relationship between the independent and dependent variables. The regression equation was ($Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \epsilon$):

Whereby Y = Effective IT Outsourcing
 X1 = Partnership
 X2 = Strategic agility
 X3 = Technology Shifts
 X4 = Communication
 X5 = Top Management Commitment and Support
 ϵ = Error Term

3.8 Ethical Considerations

Ethical considerations in research can be defined as ensuring that the researcher conforms to the standards of conduct of the authorities in the area of research. Examples of ethical issues that may arise are voluntary participation of respondents, deception to participants, anonymity and confidentiality of information given, analysis and reporting, harm or danger to participants and any other professional code of ethics expected (Babbie, 2011). To ensure that the research was done in an ethical manner according to the expectations of all authorities, a letter from the University was obtained. The researcher also pursued a permit from the relevant authorities in the district office, permitting the research. Also, due to sensitivity of some information collected, the researcher held a moral obligation to treat the information with utmost propriety. Further, since the respondents were reluctant to disclose some information, the researcher reassured the respondents of use and confidentiality of the information given.

3.9 Operationalization Definition of Variables

Table 3.4: Operationalization Table

Objectives	Variables	Indicators	Measurement scale	Tools of analysis	Types of data analysis
To establish the influence of partnership on effective Information Technology Outsourcing in IBM.	Independent : Partnership	<ul style="list-style-type: none"> - Degree of interdependency - Core competencies complementation - Exchange of organizational and managerial know-how - Sharing of common values - Sharing of principles - Cooperation ideas - Personalization of the outsourcing contract - Mutual trust - Existence of a cultural fit 	Ordinal Ordinal Nominal Interval Ordinal Ordinal Ordinal Ordinal Nominal	Mean Percentage	Descriptive Correlation Regression
To establish the influence of Strategic Agility on the effective Information Technology Outsourcing in IBM	Independent : Strategic Agility	<ul style="list-style-type: none"> - Process improvement methods - Adoption of user focused metrics - Frequent updates and online agile tools - Development teams coordination for quick responses to changing requirements. - are produced as frequent as possible 	Ordinal Ratio Interval Ordinal Ordinal	Mean Percentage	Descriptive Correlation Regression
To examine the influence of technology shifts on effective Information Technology Outsourcing in IBM.	Independent : Technology Shifts	<ul style="list-style-type: none"> - IT staff expertise - IT governance - Technology reliability - It security - IT infrastructure - IT Competence - IT Performance 	Ordinal Ordinal Nominal Ordinal Interval Ordinal Nominal	Mean Percentage	Descriptive Correlation Regression

Objectives	Variables	Indicators	Measurement scale	Tools of analysis	Types of data analysis
To determine the influence of Communication on effective Information Technology Outsourcing in IBM.	Independent : Communication	<ul style="list-style-type: none"> - Communication mechanisms and tools - Frequent communication between the users and developers - Periodical talkfest (Meetings) - Extensive and concise documentation - Clarity of communication - Clear mutual expectations 	Ordinal Interval Nominal Ordinal Ordinal Ordinal	Mean Percentage	Descriptive Correlation Regression
To determine the influence of top management commitment and support on the effective Information Technology Outsourcing in IBM	Independent : Top Management Commitment and Support	<ul style="list-style-type: none"> - Employee training and empowerment promotion - Encouragement of self-organized teams - Facilitating employee involvement - Flexible and variable payment methods - Promoting a cultural shift by the organization's employees - Instituting rewards and incentives systems to affect employee behavior 	Ordinal Ordinal Ordinal Nominal Ordinal Nominal		Descriptive Correlation Regression
	Dependent : Effective IT Outsourcing	<ul style="list-style-type: none"> - Cost savings (staff and technology) - Client satisfaction - Improved productivity - Spreading risk - Increasing flexibility - Improving quality - Reducing the risk of technological obsolescence - Facilitating access to technology 	Nominal Ordinal Nominal Nominal	Mean Percentage	Descriptive Correlation Regression

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction

This chapter discusses the interpretation and presentation of the findings. This chapter presents analysis of the data on the determinants for effective information technology outsourcing: the case of international business machines Corporation (IBM) Kenya. The chapter also provides the major findings and results of the study.

4.1.1 Questionnaire Response Rate

The study targeted a sample size of 66 respondents from which 55 filled in and returned the questionnaires making a response rate of 83.3%. This response rate was good and representative and conforms to Mugenda and Mugenda (1999) stipulation that a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good and a response rate of 70% and over is excellent.

4.2 Demographic Characteristics of Respondents

The respondents indicated that they were in various departments such as GBS, AMS, GTS and Business Controls. They indicated their designations as Project Manager, VP Strategic Outsourcing, Delivery Executive, Portfolio Manager and GTS Business Controls Leader for CEWA. In addition, they pointed out that they had been in IBM for an average of 14 years.

4.3 Partnership and Effective Information Technology Outsourcing

The study sought to find out extent that partnership affects effective IT Outsourcing at IBM Kenya and extent that partnership aspects influence effective IT Outsourcing at IBM Kenya.

Table 4.1: Extent that Partnership influence effective IT Outsourcing in IBM Kenya

Responses	Frequency	Percentage
Very great extent	10	18.2
Great extent	30	54.5
Moderate extent	8	14.5
Very low extent	4	7.3
Low extent	3	5.5
Total	55	100.0

According to the findings, most of the respondents (54.5%) indicated that partnership affects the effective IT Outsourcing at IBM to a great extent. 18.2% said to a very great extent, 14.5% said to a moderate extent, 7.3% said to a very low extent and 5.5% indicated to a low extent.

Table 4.2: Extent that Partnership aspects influence effective IT Outsourcing at IBM Kenya

Responses	Mean	Standard deviation	CV (%)
Degree of interdependency	4.525	0.974	21.5%
Mutual trust	4.089	0.626	15.3%
Core competencies complementation	3.964	0.852	21.5%
Sharing of principles	3.857	0.699	18.1%
Sharing of common values	3.825	0.874	22.8%
Cooperation ideas	3.654	0.63	17.2%
Exchange of organizational and managerial know-how	3.504	0.711	20.3%
Personalization of the outsourcing contract	3.418	0.587	17.2%
Existence of a cultural fit	3.418	0.587	17.2%

According to the findings, degree of interdependency influence effective IT Outsourcing at IBM to a very great extent as expressed by a mean score of 4.525. Mutual trust, core competencies complementation, sharing of principles, sharing of common values, cooperation ideas and exchange of organizational and managerial know-how influenced effective IT Outsourcing to a great extent as expressed by a mean score of 4.089, 3.964, 3.857, 3.825, 3.654 and 3.504 respectively. Personalization of the outsourcing contract and existence of a cultural fit influenced effective IT Outsourcing to a moderate extent as expressed by a mean score of 3.418 and 3.418 respectively. This notwithstanding, there was general consensus among the respondents on the fact that mutual trust influence effective IT Outsourcing at IBM Kenya while their opinions were skewed on the fact that sharing of common values influence effective IT Outsourcing at IBM Kenya as shown by the Coefficient of Variation. The respondents also indicated that IBM defines partnership as being able to not be regarded as a vendor. Vendors haggle with clients on what products and services cost. Partners focus on benefits to the client and their business thus the stated areas above must be achieved in order for their client to view IBM as a partner.

4.4 Strategic agility and Effective Information Technology Outsourcing

The study sought to determine extent that strategic agility affects the effective IT Outsourcing in the company and extent that strategic agility aspects influence effective IT Outsourcing in IBM.

Table 4.3: Extent that Strategic Agility affects effective IT Outsourcing at IBM

Responses	Frequency	Percentage
Very great extent	22	40.0
Great extent	20	36.4
Moderate extent	6	10.9
Very low extent	4	7.3
Low extent	3	5.4
Total	55	100.0

From the findings, majority of the respondents (40%) indicated that strategic agility affected the effective IT Outsourcing to a very great extent.36.4% to a great extent, 10.9% to a moderate extent, 7.3% said to a very low extent and the rest 5.5% said to low extent.

Table 4.4: Extent that Strategic Agility aspects influence effective IT Outsourcing in IBM

Responses	Mean	Standard deviation	CV
Adoption of user focused metrics	4.4030	0.67554	15.3%
Daily updates and online agile tools	4.1940	0.67955	16.2%
Deliverables are produced as frequent as possible	4.1926	0.68253	16.3%
Process improvement methods	4.0597	0.71522	17.6%
Development teams coordination for quick responses to changing requirements	4.4925	0.68253	15.2%

According to the findings, adoption of user focused metrics, daily updates and online agile tools, deliverables are produced as frequent as possible, process improvement methods and development teams coordination for quick responses to changing requirements influenced effective IT Outsourcing in IBM to a great extent as expressed by a mean score of 4.4030, 4.1940, 4.1926, 4.0597and 4.4925 respectively. There was also a general consensus that development teams coordination for quick responses to changing requirements influenced effective IT Outsourcing in IBM. The respondents also indicated that strategic agility affected success of effective IT Outsourcing in IBM in ways such as new services provision. IBM's ability to be agile and flexible was a major plus capability and that new development approaches were more successful if they were viewed as new business.

4.5 Technology Shifts and Effective Information Technology Outsourcing

The study further sought to find out extent that technology shifts affect the success of effective IT Outsourcing in IBM and extent that technology shift aspects influence effective IT Outsourcing in IBM.

Table 4.5: Extent that Technology Shifts affect the effective IT Outsourcing in IBM

Responses	Frequency	Percentage
Very great extent	18	32.7
Great extent	23	41.8
Moderate extent	7	12.7
Very low extent	4	7.3
Low extent	3	5.5
Total	55	100.0

According to the findings, most of the respondents (41.8%) indicated that technology shifts affected effective IT Outsourcing in IBM to a great extent. 32.7% to a very great extent, 12.7% to a moderate extent, 7.3% to a very low extent and the rest 5.5% to a low extent.

Table 4.6: Extent that Technology Shift aspects influence effective IT Outsourcing in IBM

Responses	Mean	Standard deviation	CV
IT performance	4.4908	0.86225	19.2%
IT infrastructure	4.1941	0.96770	23.1%
IT staff expertise	3.9254	0.85835	21.9%
IT competence	3.8718	0.79898	20.6%
Technology reliability	3.7363	0.96827	25.9%
IT security	3.3750	0.64800	19.2%
IT governance	3.6010	0.53000	14.7%

From the findings, IT performance, IT infrastructure, IT staff expertise, IT Competence, Technology reliability and IT governance influenced effective IT Outsourcing to a great extent as expressed by a mean score of 4.4908, 4.1941, 3.9254, 3.8718, 3.7363 and 3.6010 respectively. Information Technology security influenced effective IT Outsourcing to a moderate extent as

expressed by a mean score of 3.3750. In addition, it was clear that IT governance influence effective IT Outsourcing in IBM. The respondents also indicated that IBM was always quick to adopt emerging technologies and also facilitated the IBM staff to look at all avenues as well as all technologies to achieve the best delivery results. However, making technology changes can be very difficult especially if the new technology has a cost impact that was never anticipated (positive /negative) since it can cause disruption to the relationship and strain the partnership.

4.6 Communication and Effective Information Technology Outsourcing

The study sought to determine the extent to which communication influences effective IT Outsourcing in IBM Kenya and the extent that communication aspects influence effective IT Outsourcing in IBM Kenya.

Table 4.7: Extent that Communication influences effective IT Outsourcing in IBM Kenya

Responses	Frequency	Percentage
Very great extent	9	16.4
Great extent	34	61.8
Moderate extent	6	10.9
Low extent	4	7.3
Very low extent	2	3.6
Total	55	100.0

From the findings, majority of the respondents (61.8%) indicated that communication influenced effective IT Outsourcing in IBM Kenya to a great extent. 16.4% said to a very great extent, 10.9% to a moderate extent, 7.3% to a low extent and the rest 3.6% to a very low extent.

Table 4.8: Extent That Communication Aspects Influence Effective IT Outsourcing

Responses	Mean	Standard deviation	CV
Communication mechanisms and tools	4.125	0.974	23.6%
Periodical talkfest (Meetings)	4.125	0.974	23.6%
Frequent communication between the users and developers	4.089	0.793	19.4%
Clarity of communication	3.571	0.657	18.4%
Clear mutual expectations	3.504	0.711	20.3%
Extensive and concise documentation	3.386	0.889	26.3%

From the findings, communication mechanisms and tools, periodical talkfest (meetings), frequent communication between the users and developers, clarity of communication and clear mutual expectations influence effective IT Outsourcing to a great extent as expressed by a mean score of 4.125, 4.125, 4.089, 3.571 and 3.504 respectively. Nevertheless, there was consensus that the clarity of communication influence effective IT Outsourcing. Extensive and concise documentation influence effective IT Outsourcing to a moderate extent as expressed by a mean score of 3.386. The respondents also indicated that clear concise and accurate communication is key to effective IT Outsourcing and if not addressed from the word go the entire relationship is at risk. However the main source of communication is not because of managements desire to be proactive but is due to escalations and urgencies.

4.7 Top Management Commitment and Support and Effective Information Technology Outsourcing

The study sought to find out extent that top management commitment and support affect the effective IT Outsourcing in IBM and extent that aspects of management influence effective IT Outsourcing in IBM.

Table 4.9: Extent that Top Management Commitment and Support affect the effective IT Outsourcing

Responses	Frequency	Percentage
Very great extent	25	45.5
Great extent	17	30.9
Moderate extent	8	14.5
Low extent	3	5.5
Very low extent	2	3.6
Total	55	100.0

From the findings, most of the respondents (45.5%) showed that top management commitment and support affect the IT Outsourcing to a very great extent. 30.9% to a great extent, 14.5% to a moderate extent, 5.5% to a low extent and 3.6% said to a very low extent.

Table 4.10: Extent that aspects of Management influence effective IT Outsourcing

Responses	Mean	Standard deviation	CV
Facilitating employee involvement	4.6716	0.56106	12.0%
Employee training and empowerment promotion	4.5373	0.65893	14.5%
Flexible and variable payment methods	4.4030	0.67554	15.3%
Encouragement of self-organized teams	4.1940	0.67955	16.2%
Promoting a cultural shift by the organization's employees	3.3860	0.88900	26.3%
Instituting rewards and incentives systems to affect employee behavior	4.5522	0.65790	14.5%

According to the findings, facilitating employee involvement, employee training and empowerment promotion and instituting rewards and incentives systems to affect employee behavior influence effective IT Outsourcing to a very great extent as expressed by a mean score of 4.6716, 4.5373 and 4.5522 respectively. Flexible and variable payment methods and encouragement of self-organized teams influence IT Outsourcing to a great extent as expressed by a mean score of 4.4030 and 4.1940 respectively. Promoting a cultural shift by the organization's employees influences effective IT Outsourcing to a moderate extent as expressed by a mean score of 3.3860. It was also clear that the respondents generally agreed that facilitating employee involvement influence effective IT Outsourcing. The respondents further indicated that top management comes into play more during complex issues management and resolution and that maintaining senior executive relationships on client side is essential for satisfaction and growth. IBM Top Management empowers the employee base to take delivery into their own hands and engage the customer on the most effective solution. Top management normally takes a mid-layer approach and facilitates only when escalations occur.

4.8 Effectiveness of IT Outsourcing

The study sought to determine extent that IBM is effective in various aspects of IT Outsourcing.

Table 4.11: Extent that IBM is effective in various aspects of IT Outsourcing

Responses	Mean	Standard deviation	CV
Increasing flexibility	4.7838	0.41734	8.7%
Improved productivity	4.6757	0.52989	11.3%
Client satisfaction	4.4595	0.50523	11.3%
Cost savings (staff and technology)	4.1194	0.89650	21.8%
Facilitating access to technology	4.0000	0.81650	20.4%
Improving quality	3.5783	0.66480	18.6%
Spreading risk	3.1446	0.32763	10.4%
Reducing the risk of technological obsolescence	3.1325	0.86632	27.7%

From the findings, IBM had been effective in increasing flexibility and improved productivity to a very great extent as expressed by a mean score of 4.7838 and 4.6757 respectively. IBM is successful in client satisfaction, cost savings (staff and technology), facilitating access to technology and improving quality to a great extent as expressed by a mean score of 4.4595, 4.1194, 4.0000 and 3.5783 respectively. IBM is successful in spreading risk and reducing the risk of technological obsolescence to a moderate extent as expressed by a mean score of 3.1446 and 3.1325 respectively. Nevertheless, there was consensus that IBM is effective in spreading risk.

4.9 Regression Analysis

In addition, the researcher conducted a multiple regression analysis so as to determine the effects of partnership, working condition, technology shifts, supervisors' support and career opportunities on effective IT Outsourcing.

Table 4.12: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.938 ^a	.880	.872	.44854

Coefficient of determination (R^2) explains the extent to which changes in the dependent variable can be explained by the change in the independent variables or the percentage of variation in the dependent variable (success of IT Outsourcing) that is explained by all the five independent variables (partnership, strategic agility, technology shifts, communication and top management commitment and support).

The five independent variables that were studied explained 88.0% of variability in effectiveness of IT Outsourcing as shown by the R^2 in the Table 4.12 above. This therefore meant that other factors not studied in the research contributed to 12.0% variability in in effective IT Outsourcing.

Table 4.13: ANOVA Results

	Model	Sum of Squares	df	Mean Square	F	Sig.
	Regression	105.248	5	21.050	104.625	.0001
1	Residual	14.285	49	.201		
	Total	119.532	54			

From the ANOVA statics in table above the overall model was significant in predicting the relationship between success of IT Outsourcing and the predictor variable as shown by a p- value of which is less than 0.05 ($p = 0.0001$).

Table 4.14: Coefficient of Regression

Model	Unstandardized		Standardized	T	Sig.
	Coefficients		Coefficients		
	B	Std. Error	Beta	B	
(Constant)	0.380	0.243		1.559	.123
Partnership	0.175	0.083	0.149	2.109	.038
Strategic agility	0.463	0.136	0.342	3.415	.001
Technology Shifts	0.150	0.112	0.031	0.418	.004
Communication	0.025	0.203	0.017	0.124	.001
Top Management Commitment and Support	0.806	0.110	0.699	7.342	.000

The established model for the study was:

$$Y = 0.380 + 0.175X_1 + 0.463X_2 + 0.150X_3 + 0.025X_4 + 0.806X_5$$

The regression equation above has established that top management commitment and support had the highest influence on effective IT Outsourcing closely followed by strategic agility, then partnership, then technology shifts while communication had the lowest influence on effective of IT Outsourcing.

The regression equation above also established that holding all other factors constant (partnership, strategic agility, technology shifts, communication and top management commitment and support) effective IT Outsourcing will be 0.380 which signifies marginally increasing performance.

The findings further revealed that a unit change in top management commitment and support holding other factors constant will change success of IT Outsourcing by 0.806 units, a unit change in strategic agility holding other factors constant will change effective IT Outsourcing by 0.463, a unit change in communication holding other factors constant will change success of IT Outsourcing by 0.025, a unit change in partnership holding other factors constant will change success of IT Outsourcing by 0.175, while a unit change in technology shifts holding other factors constant will change success of IT Outsourcing by 0.150.

All the independent variables were significant in the model as the P-value obtained were less than 0.05 with partnership having a significance of 0.038, strategic agility having a significance of 0.001, technology shifts having a significance of 0.004, communication having a significance of 0.001 and top management commitment and support having a significance of 0.000.

CHAPTER FIVE

SUMMARY OF FINDINGS, DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the discussion of key data findings, conclusion drawn from the findings highlighted and recommendation made. The conclusions and recommendations drawn were focused on addressing the objective of the study.

5.2 Summary of Findings

5.2.1 Partnership and Effective Information Technology Outsourcing

The study found out that partnership affects effective IT Outsourcing at IBM Kenya to a great extent (54.5%) and that degree of interdependency influence effective IT Outsourcing at IBM Kenya to a very great extent as expressed by a mean score of 4.525. Mutual trust, core competencies complementation, sharing of principles, sharing of common values, cooperation ideas and exchange of organizational and managerial know-how influenced effective IT Outsourcing to a great extent as expressed by a mean score of 4.089, 3.964, 3.857, 3.825, 3.654 and 3.504 respectively. Personalization of the outsourcing contract and existence of a cultural fit did not influence effective IT Outsourcing at IBM Kenya as expressed by a mean score of 3.418 and 3.418 respectively. Furthermore, IBM Kenya defines partnership as being able to not be regarded as a vendor since vendors haggle with clients on what products and services cost. Partners focus on benefits to the client and their business thus the stated areas above must be achieved in order for their client to view IBM Kenya as a partner.

5.2.2 Strategic Agility and Effective Information Technology Outsourcing

The study established that strategic agility affected the effective IT Outsourcing to a very great extent (40%). Adoption of user focused metrics, daily updates and online agile tools, deliverables are produced as frequent as possible, process improvement methods and development teams coordination for quick responses to changing requirements influenced effective IT Outsourcing

in IBM to a great extent as expressed by a mean score of 4.4030, 4.1940, 4.1926, 4.0597 and 4.4925 respectively. As indicated, strategic agility affected success of effective IT Outsourcing in IBM Kenya in ways such as new services provision. IBM's ability to be agile and flexible was a major plus capability and that new development approaches were more successful if they were viewed as new business.

5.2.3 Technology Shifts and Effective Information Technology Outsourcing

The study deduced that technology shifts affected the success of effective IT Outsourcing in IBM to a great extent (41.8%). IT performance, IT infrastructure, IT staff expertise, IT Competence, Technology reliability and IT governance influenced effective IT Outsourcing to a great extent as expressed by a mean score of 4.4908, 4.1941, 3.9254, 3.8718, 3.7363 and 3.6010 respectively. In addition, IT security was not the highest priority at IBM Kenya although it was important. Furthermore, IBM was always quick to adopt emerging technologies and as well facilitated the IBM staff to look at all avenues and all technologies to achieve the best delivery results. However, making technology changes can be very difficult especially if the new technology has a cost impact that was never anticipated (positive /negative) since it can cause disruption to the relationship and strain the partnership.

5.2.4 Communication and Effective Information Technology Outsourcing

The study established that the communication affects effective IT Outsourcing in IBM Kenya to a great extent (61.8%). Communication mechanisms and tools, periodical talkfest (meetings), frequent communication between the users and developers, clarity of communication and clear mutual expectations influenced effective IT Outsourcing to a great extent as expressed by a mean score of 4.125, 4.125, 4.089, 3.571 and 3.504 respectively. However, extensive and concise documentation did not influence effective IT Outsourcing in IBM Kenya. It was also evident that clear concise and accurate communication was key to effective IT Outsourcing and if not addressed from the word go the entire relationship is at risk. However the main source of communication was not because of managements' desire to be proactive but was due to escalations and urgencies.

5.2.5 Top Management Commitment and Support and Effective Information Technology Outsourcing

The study found out top management commitment and support affects the IT Outsourcing to a very great extent (45.5%). Facilitating employee involvement, employee training and empowerment promotion and instituting rewards and incentives systems to affect employee behavior influence effective IT Outsourcing to a very great extent as expressed by a mean score of 4.6716, 4.5373 and 4.5522 respectively. In addition, flexible and variable payment methods and encouragement of self-organized teams influence IT Outsourcing to a great extent as expressed by a mean score of 4.4030 and 4.1940 respectively. However, promoting a cultural shift by the organization's employees did not influence effective IT Outsourcing. It was also evident that top management came into play more during complex issues management and resolution and that maintaining senior executive relationships on client side was essential for satisfaction and growth. IBM Kenya top management empowers the employee base to take delivery into their own hands and engage the customer on the most effecting solution. Top management normally takes a mid-layer approach and facilitates only when escalations occur.

5.2.6 Effectiveness Information Technology Outsourcing

The study found out that IBM Kenya had been successful in increasing flexibility and improved productivity to a very great extent as expressed by a mean score of 4.7838 and 4.6757 respectively. IBM Kenya is successful in client satisfaction, cost savings (staff and technology), facilitating access to technology and improving quality to a great extent as expressed by a mean score of 4.4595, 4.1194, 4.0000 and 3.5783 respectively. IBM Kenya is not as successful in spreading risk and reducing the risk of technological obsolescence.

5.3 Discussion

This section presents the discussion based on the key data findings drawn from the objectives of the study.

5.3.1 Partnership and Effective Information Technology Outsourcing

The study deduced that partnership affects effective IT Outsourcing at IBM Kenya to a great extent and that degree of interdependency influence effective IT Outsourcing at IBM Kenya to a very great extent. In addition, mutual trust, core competencies complementation, sharing of principles, sharing of common values, cooperation ideas and exchange of organizational and managerial know-how influenced effective IT Outsourcing to a great extent. Personalization of the outsourcing contract and existence of a cultural fit did not influence effective IT Outsourcing at IBM Kenya. It was also evident that IBM Kenya defines partnership as being able to not be regarded as a vendor since vendors haggle with clients on what products and services cost. Partners focus on benefits to the client and their business thus the stated areas above must be achieved in order for their client to view IBM Kenya as a partner. This findings are in line with Fitzgerald and Willcocks(1994) who identifies seven attributes which can lead to effective partner relationships: non-reliance on the contract as the basis of the relationship; a mutual desire to work things out and a give-and-take philosophy; the ability to work together in personal relationships terms; existence of a cultural fit between the client and vendor organizations; good treatment of the client's transferred stir a perception that the vendor understands the client's business and problems; a fair profit for the vendor ... [to prevent against] an inadequate contract. Trust, as considered earlier, is a common success factor both in outsourcing and in agile values. Enhancing mutual trust leads to a more motivated vendor and in return development staff.

5.3.2 Strategic Agility and Effective Information Technology Outsourcing

The study revealed that strategic agility affect the effective IT Outsourcing to a very great extent. With agile teams, clients are delivered frequent working parts of the system on a regular basis which brings flexible and variable payment methods for the client (Hazzan & Dubinsky, 2008). Agile methods are advantageous for projects having weak scope definitions (Kussmaul, Jack & Sponsler, 2004). They strengthen the partnership through co-operative efforts on both parties and hence building longer-term relationships for future deals (Martin, Biddle & Noble, 2004).

Adoption of user focused metrics, daily updates and online agile tools, Deliverables are produced as frequent as possible, process improvement methods and development teams coordination for

quick responses to changing requirements influenced effective IT Outsourcing in IBM Kenya to a great extent. IBM's ability to be agile and flexible was a major plus capability and that new development approaches were more successful if they were viewed as new business. These findings correlate that with Suhaimi, Husnayati and Muzzafar (2007) who argues that Process improvement methods despite their robust nature in terms of process maturity contained heavy documentation and extensive procedures. Moreover, planning and contract related processes play crucial roles throughout the development phases.

Most of the time, changes in design are expensive and time consuming which may enable the developers start coding from scratch. In addition, metrics are always process-oriented and usually lack user focus. The findings also correlate with Martin, Biddle and Noble (2004) and Kussmaul, Jack and Sponsler (2004) who argue that agile methods are advantageous for projects having weak scope definitions. They strengthen the partnership through co-operative efforts on both parties and hence building longer-term relationships for future deals.

5.3.3 Technology Shifts and Effective Information Technology Outsourcing

Information Technology Outsourcing allows the client organizations to refocus on their core business activities as they obtain the necessary IT competence from the vendor (Manning, 2008). The study deduced that technology shifts affected the success of effective IT Outsourcing in IBM to a great extent. IT performance, IT infrastructure, IT staff expertise, IT competence, technology reliability and IT governance influenced effective IT Outsourcing to a great extent. In addition, IT security was not the highest priority at IBM Kenya although it was important. IBM Kenya was always quick to adopt emerging technologies and as well facilitated the IBM staff to look at all avenues and all technologies to achieve the best delivery results. These findings are in line with IT Governance Institute (2003) who argues that effective IT governance is intended to improve IT performance in organizations. By improving IT performance, organizations expect to obtain benefits from their IT such as reliable, fast and secured solutions, to acquire a rational return on investment, and to improve efficiency and productivity. In line with this view, earlier studies reveal that effective IT governance contributes to higher return on assets, and provides firms with new business opportunities (Sampler & Weill, 2003). The findings also correlate with

Hall (2008) who argues that corporations are rationalizing their capital outlay on IT and where possible, drastic restructuring of the traditional in-house mode of IT governance is undertaken to trim the high costs of IT infrastructure. According to Hall (2008) outsourcing can free capital tied up in data center hardware and save operating costs. With the escalating level of IT investments needed to support business in the contemporary marketplace, there is a need to reconfigure the IT infrastructure in ways that make it possible to ascertain the benefits in a clear manner (Fisher, Hirschheim & Jacobs, 2008).

5.3.4 Communication and Effective Information Technology Outsourcing

The study established that communication influenced effective IT Outsourcing in IBM Kenya to a great extent. Communication mechanisms and tools, periodical talkfest (meetings), frequent communication between the users and developers, clarity of communication and clear mutual expectations influenced effective IT Outsourcing to a great extent. However, extensive and concise documentation did not influence effective IT Outsourcing in IBM Kenya. Clear concise and accurate communication was key to effective IT Outsourcing and if not addressed from the word go the entire relationship is at risk. These findings are consistent with Berger and Lewis (2011) who stated that effective communication between outsourcing partners is assumed to be of crucial importance for the successful relationship. This factor is emphasized widely in the literature as a core determinant of the outsourcing partnerships' success since it amplifies the level of understanding and the adequate information exchange. Communication mechanisms are also important for effective IT Outsourcing as their purposes are to inform the organization as a whole about IT Outsourcing processes and decisions, and to encourage desirable behaviors in the organization (Weill & Ross, 2004).

5.3.5 Top Management Commitment and Support and Effective Information Technology Outsourcing

The study deduced that top management commitment and support affect the IT Outsourcing to a very great extent. Facilitating employee involvement, employee training and empowerment promotion and instituting rewards and incentives systems to affect employee behavior influence effective IT Outsourcing to a very great extent. In addition, flexible and variable payment

methods and encouragement of self-organized teams influence IT Outsourcing to a great extent. However, promoting a cultural shift by the organization's employees did not influence effective IT Outsourcing. Top management came into play more during complex issues management and resolution and that maintaining senior executive relationships on client side was essential for satisfaction and growth.

IBM top management empowers the employee base to take delivery into their own hands and engage the customer on the most effecting solution. These findings correlate with Iakovou and Nakatsu (2008) who argues that executive leadership and its commitment are recognized as an important factor for effective IT Outsourcing arrangement. The involvement of senior management appears to lead to effective IT planning (Cerpa & Verner, 1998). Top management support has been associated with the success of information technology diffusion within organizations. Top management support can affect new system initiatives success by promoting employee empowerment; by facilitating employee involvement; increased commitment by the organization's employees; by instituting rewards and incentives systems to affect employee behavior.

5.4 Conclusion of the Study

The study concluded that partnership affects effective IT Outsourcing at IBM Kenya to a great extent through aspects such as degree of interdependency, mutual trust, core competencies complementation, sharing of principles, sharing of common values, cooperation ideas and exchange of organizational and managerial know-how. IBM Kenya defines partnership as being able to not be regarded as a vendor since vendors haggle with clients on what products and services cost. Partners focus on benefits to the client and their business thus the stated areas above must be achieved in order for their client to view IBM as a partner.

The study also concluded that strategic agility affected the effective IT Outsourcing to a very great extent through adoption of user focused metrics, daily updates and online agile tools, Deliverables are produced as frequent as possible, process improvement methods and development teams coordination for quick responses to changing requirements. strategic agility

affected success of effective IT Outsourcing in IBM Kenya in ways such as new services provision. IBM's ability to be agile and flexible was a major plus capability.

On the issue of technology shifts, the study concluded that technology shifts affected the success of effective IT Outsourcing in IBM Kenya to a great extent. IT performance, IT infrastructure, IT staff expertise, IT competence, technology reliability and IT governance influenced effective IT Outsourcing to a great extent. IBM Kenya was always quick to adopt emerging technologies and as well facilitated the IBM staff to look at all avenues and all technologies to achieve the best delivery results.

The study further concluded that communication influence effective IT Outsourcing in IBM Kenya to a great extent through communication mechanisms and tools, periodical talkfest (meetings), frequent communication between the users and developers, clarity of communication and clear mutual expectations. Clear, concise and accurate communication was key to effective IT Outsourcing and if not addressed from the word go the entire relationship is at risk. The main source of communication was not because of managements' desire to be proactive but was due to escalations and urgencies.

The study also concluded that top management commitment and support affect the IT Outsourcing to a very great extent through facilitating employee involvement, employee training and empowerment promotion and instituting rewards and incentives systems to affect employee behavior, flexible and variable payment methods and encouragement of self-organized teams. Top management came into play more during complex issues management and resolution and that maintaining senior executive relationships on client side was essential for satisfaction and growth. IBM top management empowers the employee base to take delivery into their own hands and engage the customer on the most effecting solution.

The study finally concluded that IBM had been effective in increasing flexibility and improved productivity to a very great extent. IBM is effective in client satisfaction, cost savings (staff and technology), facilitating access to technology and improving quality to a great extent. The study deduced that top management commitment and support had the highest influence on success of

IT Outsourcing followed by strategic agility, then partnership, then technology shifts while communication had the lowest influence on effective of IT Outsourcing.

5.5 Recommendations of the Study

Based on the findings established by the study the researcher recommends that:

- i. Corporations and companies should invest in training their employees and encourage them to participate in decision making since Top Management Commitment and Support affect the IT Outsourcing to a very great extent through facilitating employee involvement, employee training and empowerment promotion.
- ii. Organizations should frequently evaluate process improvement methods to ensure their effectiveness and reliability and further aim at reducing failure demand. This is because Strategic Agility influences IT Outsourcing to a very great extent through adoption of user focused metrics, daily updates and online agile tools, deliverables are produced as frequent as possible, process improvement methods and development teams' coordination for quick responses to changing requirements.
- iii. Organizations should leverage their assets, resources and capabilities before entering into a partnership. This will enable each party to share their knowhow to achieve synergy. This is because Partnership promotes effective IT Outsourcing as is the case in IBM Kenya through aspects such as degree of interdependency, mutual trust, core competencies complementation, sharing of principles, sharing of common values, cooperation ideas and exchange of organizational and managerial know-how.
- iv. Organizations should align IT strategy with corporate strategy and optimize delivery of IT services to better meet business needs which is drawn from the conclusion that IT performance, IT infrastructure, IT staff expertise, IT competence, technology reliability and IT governance influenced effective IT Outsourcing to a great extent.

- v. . Corporations and even companies should keep their employees and partners truly informed. They should also protect the interest of all employees in a work group. This will enhance trust and improve communication. They should also strive to create a work environment that is free from fear that will encourage communication based on the conclusion that communication influences effective IT Outsourcing in IBM Kenya to a great extent through communication mechanisms and tools, periodical talkfest (meetings), frequent communication between the users and developers, clarity of communication and clear mutual expectations.

5.6 Suggestion for Further Studies

The researcher recommends that this study is adopted for micro small and medium enterprises to investigate the determinants for effective Information Technology Outsourcing. Another suggestion for further research should be done on the performance level of companies/ corporations that have outsourced Information Technology.

REFERENCES

- Abrams, R. (1964). *Conservatism in a Progressive Era: Massachusetts Politics 1900 – 1912*. . Harvard University Press.
- Adelakun & Iyamu. (2012). Offshore IT Outsourcing to South Africa. *Analysis of Readiness and Attractiveness*, 4(1), 56-75.
- Barako, D. G. & Gatere, P.K. (2008). Outsourcing practices of the Kenya banking sector. *African. Journal of Accounting, Economics, Finance and Banking Research*, 2(2), 37-50.
- Berger, H. & Lewis, C. (2011). Stakeholder analysis is key to client–supplier relationships of global outsourcing project success, *International Journal of Information Management*, 31 (5), 480-485.
- Bergkvist, L. & Fredriksson, O. (2008). Outsourcing terms: A literature review from an ISD perspective, *ECIS 2008 Proceedings*, Paper 129.
- Bharadwaj, A. S. (2000). A Resource-based Perspective on Information Technology Capability and Firm Performance: An Empirical Investigation. *MIS Quarterly*, 24(1), 169–195.
- Callahan, J. & Keyes, D. (2004). The evolution of IT Governance @ NB Power. In Grembergen (Ed.), *Strategies for Information Technology Governance: Idea Group Publishing*. 14,179–193 191
- Cerpa, N. & Verner, J. M. (1998). Case Study: The Effect of IS Maturity on Information Systems Strategic Planning. *Information & Management*, 34, 199–208.
- Cheon, M.J., Grover, V. & Teng, J.T.C. (1995). Theoretical perspectives on the outsourcing of information systems. *Journal of Information Technology*, 10(4), 209–219.
- Clarkson, P., Ferguson, C. & Hall, J. (2003). Auditor Conservatism and Voluntary Disclosure: Evidence from the Year 2000 Systems Issues. *Accounting and Finance*, 43, 21–40.
- Cullen, S., Seddon, P. B. & Willcocks, L.P. (2005). Managing outsourcing: Research into defining and designing outsourcing arrangements. *Journal of Strategic Information Systems*, 14(4), 357-387.
- Dahlberg, T., & Lahdelma, P. (2007). IT Governance Maturity and IT Outsourcing Degree: An Exploratory Study. *Proceedings of the 40th Hawaii International Conference on System Sciences*.

- De Haes, S. & Grembergen, W.V. (2005). IT Governance Structures, Processes and Relational Mechanisms: *Achieving IT/Business Alignment in a Major Belgian Financial Group*. Paper presented at the Proceedings of the 38th Hawaii International Conference on System Sciences.
- Dibbern, J., Goles, T., Hirschheim, R. & Jayatilaka, B. (2004). Information systems outsourcing: A survey and analysis of the literature. *Data base for Advances in Information Systems*, 35(4), 6–102.
- Espino-Rodriguez, T.F. & Padron-Robaina, V. (2006).A review of outsourcing from the resource-based view of the firm. *International Journal of Management Reviews*, 8(1), 49–70.
- Fahy, J. (2000). The resource-based view of the firm: some stumbling-blocks on the road to understanding sustainable competitive advantage, *Journal of European Industrial Training*, Vol. 24, pp 94-104.
- Fisher, J., Hirschheim, R. & Jacobs, R. (2008).Understanding the Outsourcing Learning Curve: A Longitudinal Analysis of a Large Australian Company. *Information Systems Frontiers*, 10, 165– 178.
- Hall, J.A. & Liedtka, S.L. (2005). Financial performance, CEO compensation, and large-scale information technology outsourcing decisions. *Journal of Management Information Systems*, 22(1):193–221, 2005.
- Han, H., Lee, J. & Seo, Y. (2008).Analyzing the impact of a firm's capability on outsourcing success: A process perspective. *Information & Management*, 45(1), 31–42.
- Hazzan, O. & Dubinsky, Y. (2008).Agile Software Engineering. (EBook Ed.). London: Springer.
- Hirschheim, R., & Lacity, M. C. (2000).The myths and realities of information technology in sourcing. *Communication of the ACM*, 43(2), 99–107.
- Iacovou, C. & Nakatsu, R. (2008).A risk profile of offshore outsourced development projects, *Communications of the ACM*, 51 (6), 89-94.
- Ishizaka, A. & Blakiston, R. (2012).The 18C's model for a successful long-term outsourcing arrangement, *Industrial Marketing Management*, 41 (7), 1071-1080.

- Iyamu, T. & Roode, D. (2010). The use of Structuration and Actor Network Theory for analysis: A case study of a financial institution in South Africa, *International Journal of Actor-Network Theory and Technological Innovation*, 2(1), 1–26.
- Kannan, N. (2007). Agile Outsourcing: Managing Communication Effectiveness. (<http://www.sourcingmag.com/content/c070604a.asp>).
- Kenya ICT Strategy. (2006) .Collaboration and outsourcing for economic growth. Retrieved on March 15, 2008 from <http://www.information.go.ke/docs/Kenya%20ICT%20Strategy.pdf>
- Khalfan, A. (2003). A case analysis of business process outsourcing project failure: Profile and implementation problems in a large organization of a developing nation. *Business Process Management Journal*, 9 (6), 745 -759.
- Kim, B. & Park, K. (2003). Satisfying different customer groups for IS outsourcing: A Korean IS company experience. *Asia Pacific Journal of Marketing and Logistics*, 15(3), 48–69.
- Kothari, C. R. (2004). Research methodology: Methods and technique (2nd ed.). New Delhi: Washwa Prakashan.
- Kussmaul, C., Jack, R. & Sponsler, B. (2004). Outsourcing and offshoring with agility: A case study. *Lecture Notes in Computer Science*, 147–154.
- Lacity, M.C. & Willcocks. L.P.(2009). A review of the IT Outsourcing literature: Insights for practice. *Journal of Strategic Information Systems*, 18(3), 130–146.
- Lahiri, S. & Kedia, B. L. (2011).Co-evolution of institutional and organizational factors in explaining offshore outsourcing. *International Business Review*, 20, 252-263.
- Lee, J. & Kim, Y. (1999). Effect of partnership quality on IS outsourcing success: Conceptual framework and empirical validation. *Journal of Management Information Systems*, 15(4), 29–61.
- Loh, L. & Venkatraman, N. (1992). Disunion of information technology outsourcing: Influence sources and the Kodak elect. *Information Systems Research*, 3(4), 334–358.
- Luftman, J. (2000). Assessing Business-IT Alignment Maturity. *Communications of AIS*, 4.
- Manning, S. (2008). A dynamic perspective on next-generation offshoring: the global sourcing of science and engineering talent. *Academy of Management Perspectives*, 22 (3), 35-54.
- Martin, A., Biddle, R. & Noble, J. (2004).When XP met outsourcing. *LNCS*, 51–59.

- Meso, P. & Smith, R. (2000) A resource-based view of organizational knowledge management systems. *Journal of Knowledge Management*, 4(3), 224–234.
- Ndifet, K. S. (2004). *Outsourcing in commercial banks, Cameroon: Pros and cons* (Unpublished Masters of Arts Thesis). Finland: Helsinki University of Technology.
- Nonaka, I. & Takeuchi, H. (1995). *The Knowledge-Creating Company*. New York: Oxford University Press.
- Onsongo, E. K. (2009). Information system investment appraisal in commercial banks in Kenya. *Unpublished Master of Commerce Thesis*. Nairobi: Strathmore University.
- Sabherwal, R. (2003). The role of trust in OISD projects. *Communications of the ACM*, 42(2), 80–87.
- Salmela, H., Lederer, A. L. & Reponen, T. (2000). Information systems planning in a turbulent environment. *European Journal of Information Systems*, 9(1), 3–15.
- Sampler, J. & Weill, P. (2003). Core Incompetencies. *Research Briefing*, III (1B).
- Santhanam, R. & Hartono, E. (2003). Issues in Linking Information Technology Capability to Firm Performance. *MIS Quarterly*, 27 (1), 125–153.
- Senelwa, K. (2010). ICT earnings to hit KSh. 100 billion. Daily Nation. Retrieved from <http://www.nation.co.ke/business/news/-/1006/871782/-/hc5posz/-/index.html>
- Smuts, H. (2010), Critical success factors for Information Systems outsourcing management: A software development lifecycle view. *Proceedings of the 2010 Annual Research Conference of the South African Institute of Computer Scientists and Information Technologists*, 304-313.
- Sohal, A. S., & Fitzpatrick, P. (2002). IT Governance and Management in Large Australian Organizations. *International Journal of Production Economics*, 75, 97–112.
- Strassmann, P. A. (2004). Most Outsourcing is Still for Losers. *Computerworld*, Feb 2, 38.5.
- Suhaimi, M. A., Husnayati, H. & Muzzafar, M. (2007). Information systems outsourcing: Motivations and the implementation strategy in a Malaysian bank. *Business Process Management Journal*, 13 (5), 644–661.
- Teng, J.T.C., Cheon, M.J. & Grover, V. (1995). Decisions to Outsource Information Systems Functions: Testing a Strategy-Theoretic Discrepancy Model. *Decision Sciences*, 26 (1).

- Vaswani, R. (2003). *Determinants of Effective Information Technology (IT) Governance*. Australia: Unpublished Thesis, School of Business, University of Queensland.
- Weill, P. & Ross, J. W. (2004). *IT Governance: How Top Performers Manage IT Decision Rights for Superior Results*. Boston, Massachusetts: Harvard Business School.
- Weill, P. & Ross, J. W. (2004). *IT Governance: How Top Performers Manage IT Decision Rights for Superior Results*. Boston: Massachusetts: Harvard Business School.
- Weill, P. (2004). Don't Just Lead, Govern: *How Top-Performing Firms Govern IT, CISR Working Paper*: CISR MIT.
- Williamson, O.E. (1989). Transaction cost economics. (Schmalcnsee, R. and Willig, R.D. Eds). *Handbook of Industrial Organization*. Amsterdam: North-Holland.
- Wilson, D. (2010). Intangible benefits of CMM-based software process improvement. *Software Process Improvement Practice*, 9(4), 217–228.

APPENDIX I

LETTER OF TRANSMITTAL OF DATA COLLECTION INSTRUMENT

Caroline Wanjiku Mugwe

P.O.Box 59461-00200

Nairobi

Kenya

15th May, 2014

University of Nairobi
Extra Mural Dept,
School of Continuing and Distance Education
P.O Box 30197,
Nairobi,

Dear Sir/ Madam,

RE: REQUEST TO FILL UP QUESTIONNAIRE

I am a post graduate student, University of Nairobi pursuing a master's degree in Project Planning and Management. I am undertaking a research study at the International Business Machines (IBM) and the respondents will be members of staff involved in the project as well as user Departments. The study will involve carrying out an assessment on the determinants for effective Information Technology Outsourcing with a focus on the IBM Kenya.

I am writing this letter to request you to kindly assist me by filling in all the sections of the enclosed questionnaire, as honestly as possible. All the information you give will be treated confidentially. The information will be used to prepare an academic report and will not include any specific names. The information will be used purely for this study and not for any other purposes. Your assistance will be highly appreciated.

Yours Sincerely,

Caroline Wanjiku Mugwe
0722952221

APPENDIX II

RESEARCH QUESTIONNAIRE

Introduction

Please read the questions carefully and fill out the following questionnaire on the spaces provided. All the information you give will be treated confidentially. The information will be used to prepare an academic report and will not include any specific names.

Section A: Demographic Characteristics of Respondents

1. Department:.....
2. Designation:.....
3. No. of years in IBM:.....

Section B: Partnership and Information Technology Outsourcing

1. To what extent do you think partnership affects the effective IT Outsourcing in IBM?

Very great extent [5] Moderate extent [3] Very low extent [1]
 Great extent [4] Low extent [2]

2. To what extent do the following partnership aspects influence effective IT Outsourcing in IBM?

	Very great extent	Great extent	Moderate extent	Low extent	Very low extent
Degree of interdependency					
Core competencies complementation					
Exchange of organizational and managerial know-how					
Sharing of common values					
Sharing of principles					
Cooperation ideas					
Personalization of the outsourcing contract					
Mutual trust					
Existence of a cultural fit					

3. In your opinion, how do the stated man partnership aspects affect the success of effective IT Outsourcing in IBM?

.....

Section C: Strategic agility and Information Technology Outsourcing

4. To what extent do you think strategic agility affects effective IT Outsourcing in IBM?

Very great extent [5] Moderate extent [3] Very low extent [1]
 Great extent [4] Low extent [2]

5. To what extent do the following strategic agility aspects influence effective IT Outsourcing in IBM?

	Very great extent	Great extent	Moderate extent	Low extent	Very low extent
Process improvement methods					
Adoption of user focused metrics					
Daily updates and online agile tools					
Development teams coordination for quick responses to changing requirements(Request for service)					
Deliverables of the projects produced as frequent as possible					

6. In your opinion, how do the stated strategic agility affects the success of effective IT Outsourcing in IBM?

.....

Section D: Technology Shifts and Information Technology Outsourcing

7. To what extent do you think technology shifts affect the success of effective IT Outsourcing in IBM?

Very great extent [5] Moderate extent [3] Very low extent [1]
 Great extent [4] Low extent [2]

8. To what extent do the following technology shift aspects influence effective IT Outsourcing in IBM?

	Very great extent	Great extent	Moderate extent	Low extent	Very low extent
IT staff expertise					
IT governance					
Technology reliability					
It security					
IT infrastructure					
IT Competence					
IT Performance					

9. In your opinion, how do the stated technology shifts aspects affect the success of effective IT Outsourcing in IBM?

.....

Section E: Communication and Information Technology Outsourcing

10. To what extent do you think Communication affects effective IT Outsourcing in IBM?

Very great extent [5] Moderate extent [3] Very low extent [1]
 Great extent [4] Low extent [2]

11. To what extent do the following communication aspects influence effective IT Outsourcing in IBM?

	Very great extent	Great extent	Moderate extent	Low extent	Very low extent
Communication mechanisms and tools					
Frequent communication between the users and developers					
Periodical talkfest (Meetings)					
Extensive and concise documentation,					

Clarity of communication					
Clear mutual expectations					

12. In your opinion, how does the communication affect effective IT Outsourcing in IBM?

.....

Section F: Top Management Commitment and Support and ITO

13. To what extent do you think top management commitment and support affect the effective IT Outsourcing in IBM?

Very great extent [5] Moderate extent [3] Very low extent [1]
 Great extent [4] Low extent [2]

14. To what extent do the following aspects of top management influence effective IT Outsourcing in IBM?

	Very great extent	Great extent	Moderate extent	Low extent	Very low extent
Employee training and empowerment promotion					
Encouragement of self-organized teams					
Facilitating employee involvement					
Flexible and variable payment methods					
Promoting a cultural shift by the organization's employees					
Instituting rewards and incentives systems to affect employee behavior					

15. In your opinion, how do the top management commitment and support affect the effective IT Outsourcing in IBM?

.....

16. To what extent is IBM successful in the following aspects of IT Outsourcing?

	Very great extent	Great extent	Moderate extent	Low extent	Very low extent
Cost savings (staff and technology)					
Client satisfaction					
Improved productivity					
Spreading risk					
Increasing flexibility					
Improving quality					
Reducing the risk of technological obsolescence					
Facilitating access to technology					

THANK YOU FOR YOUR PARTICIPATION

APPENDIX III

LETTER AUTHORIZING RESEARCH