

**INFORMATION TECHNOLOGY (IT) AND IMPROVING
BUSINESS PERFORMANCE.**

(A CASE STUDY OF MOVIT COMPANY UGANDA)

BY:

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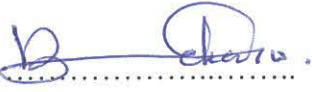
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DECLARATION

I **MUGAJJU RONALD** do hereby declare that the information contained in this research report is from my own findings and it has never been presented to any university or any other learning institution for an award.

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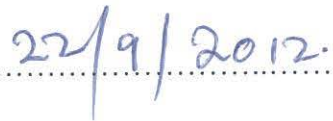
APPROVAL

I certify that this research report has been under my supervision and is now ready for submission to the college of economics and management sciences of Kampala International University for examination with my approval.

Signed 

DR STANLEY KINYATTA

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Date 

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ABSTRACT

The study was carried out with an aim of finding out the impact of information technology on improving business performance of Movit Company Wakiso district.

The study objectives were to determine the factors that can improve business performance, to define the role of information technology in business and to understand the linkage between Information Technology investment and business performance as well as how to evaluate and realize the business value of IT.

Exploratory research design was adopted in carryout the study. Data was collected using various methods like questionnaire and interview guide. The report gives an analysis of the impact of Information Technology on business performance.

The findings revealed that information technology has an important role in improving business performance through increased business cooperation and trust, providing customers with quality products and services as well as enabling the firm to implement and enable dynamic strategic planning.

It was however discovered that organizations evaluate the business value of information technology in different aspects such as net profits, sales growth and market share, return on investments among others as indicated in this research.

The research revealed that companies view the business value of IT as being successful enablement of business objectives and strategies that results in business improvement.

It was therefore recommended that companies should adopt and utilize a benefits management methodology to successfully realize the business value of IT and its benefits.

CHAPTER ONE

INTRODUCTION

1.0 Background of the study

In the ever so increasing competitive business climate of the 21st century, due to quick emergence of the technology; companies need time to adjust their business practices to take full advantage of presented opportunities. It is therefore important for companies to adopt new strategies and techniques that can help them stand in or beat off competition, enjoy the competitive advantage and hence increase their revenues through cost reduction in terms of time and money, effective control and quality service providence. To effectively manage a firm, managers must exert harder effort and implement smarter strategies in managing business (Harkin et al, 1996). Even firms enjoying a high earning profit must find ways of sustaining or increasing it. According to Henderson & Venkatraman (1993), Information Technology has become closely linked with the business strategies of organizations as a fundamental part of running their business: “Across a wide spectrum of markets and countries, IT (information technology) is transcending its traditional ‘back office’ role and is evolving toward a ‘strategic’ role with the potential not only to support chosen business strategies, but also to shape new business strategies” (p4). Similar results were found by Delisi, Danielson & Posner (1998), and Khandelwal (2001). Their surveys found that CEOs considered IT was critical for the success of their organizations.

Information Technology is therefore one of the vital strategies that corporate can adopt to effectively manage their business and improve business performance. Information technology seeks to improve business performance through effective control of the inventory, rapidity in supplying and procuring goods and services, minimization of errors and fraud reduction in the day to day transactions

Information technology (IT) refers to the management and use of information using computer-based tools. It includes acquiring, processing, storing, and distributing information. An information system uses the resources of people, hardware, software, data, and networks to

Perform input, processing, output, storage, and control activities that convert data resources into information products (www.wikipedia.com). Most commonly it is a term used to refer to business applications of computer technology, rather than scientific applications. The term is used broadly as IT in business to refer to anything that ties into the use of computers. Information Technology is having impact on all trade industries and businesses, in service as well as in manufacturing. It is affecting workers at all levels of organizations, from the executives to middle management and clerks.

Managers are faced with enormous challenges and they need to employ more of sophisticated technology to sustain the market share or increase it, hence ensure business growth by offering new and good quality products and services on the local market or the expansion of the business abroad or on an international level. Information Technology plays a vital role in the e-business and e-commerce operations, enterprise collaboration and management, and strategic success of businesses that must operate in an internet worked global environment. Thus, the field of information technology has become a major functional area of business administration (William King, 2003).

Mostly businesses today need to create data that can be stored and processed on computers for accuracy, time saving and cost reduction, effective control and planning, budgeting, sales and purchases reports, customers and suppliers' records, inventory management, financial reports, etc.

Managers in executing their roles need to ensure that businesses which they control are running as planned and will meet or achieve both short run and long run objectives. Business performance is said to increase when it is seeable that business has improved in terms of profit or revenue generation, the nature of goods sold and services rendered to customers. March and Sutton (1997) mention profits, sales, market share, productivity, debt ratios and stock prices. Ittner et al. (1997) differentiate between financial and non-financial measures of performance. Many of these different measures are correlated. Which of the measures is given priority is essentially a matter of perspective – management, employees and stakeholders will likely emphasize different performance measures as most relevant to them. In empirical studies, the

choice of the performance measure is often limited by the availability of data. In this research, organizational performance is measured in terms of turnover growth.

Information technology tends to be a vital and most essential tool for achieving the corporate or business objectives and goals in most cases tied onto growth, cost minimization, increase in sales revenues and profit maximization. Boar (1994) for example states: “In response to ever growing worldwide competition, the business needs to use IT to build, sustain and extend competitive advantage . Most major strategic thrusts require the crafted use of IT to succeed (p16)”.

Many companies that have effectively used Information technology prove it to be effective and, a competitive advantage that could increase their profit through cost minimization, time saving and the accuracy advantages that it offers.

However, many other companies have used information Technology but have never benefited from the advantages cited above nor enjoy the improvement of their business performance. Brynjolfsson & Hitt (1998) found in their research into the benefits of IT investment that: “While the average returns to IT investment are solidly positive, there are huge variations across organizations, some have spent vast sums on IT with little benefit, while others have spent similar amounts with tremendous success” (p50). Jordan (1992) on the other hand found that research into the benefits of carrying out planning for IT had not established any link between the IT plans and organizational success. According to Hind (2001a) Australian organizations on average spend between 1% and 6% of their annual revenues on Information Technology (IT). In large organizations this can amount to \$100 million or more. But how well is this money spent?

1.1 Statement of the problem

Cosmetic companies like MOVIT are nowadays facing market and business conditions that are changing rapidly. The situation is forcing them to deal with requirements that were unusual a few years ago. Indeed it is widely recognized that business and social trends are driving the pharmaceutical industry through a period of a radical change (Betts, 1999). These trends are, among others, the growing intensity of competition, which has resulted in a continuous reduction in the profit margin and gross sales; the participation of an increasing number of foreign companies attracted by stable markets with high growth potential; the increasing requirements of clients, especially concerning quality and time.

Information technology (IT) provides opportunities with which pharmaceutical companies could face present and future needs and challenges. When comparing cosmetic companies like MOVII with companies from other industries in Uganda (e.g. breweries, banking, etc.), they are traditionally slower to adopt innovative IT solutions. One could discover many reasons why they are lagging behind. However one of the reasons is particularly important, i.e. lack of experience in IT management. Unfortunately management of IT is not the only knowledge gap that cosmetic companies have to struggle with.

We live in a time when every manager wants to have her/his own strategy. To be without strategy is like wandering in the darkness and being incapable to do things right.

When company is developing IT strategy it should keep in mind following questions: Does top management have a vision of IT? Is top management aware of global trends in IT? Are opportunities that IT can bring being considered in the process of business strategy development? Is there a common understanding of the business needs and processes that IT is intended to satisfy? Is there a person in charge of aligning IT strategy and business strategy?

Only if company knows answers on these questions there is a chance of successful development and realization of IT strategy. Otherwise the company is sentenced to high IT investments with low or no tangible returns, unsatisfied employees and even higher reluctance to IT.

1.2 Purpose of the study

The purpose of this work is to disseminate and to link knowledge from four fields, i.e. cosmetic sector, strategic management, IT, and business performance and to provide understanding of how important for pharmaceutical companies is to acquire and use knowledge on strategic management when trying to materialized the opportunities that IT is offering. Thus strengthen the belief that the strategy is fundamental for success of a company. This research has an emphasis on management of IT and the role that IT has on business strategy development process.

1.3 Objectives of the study

The study was guided by the following objectives:

1. To determine the determinants or factors that can improve business performance.
2. To define the role of IT in Business or the business value of IT.
3. To understand the linkage between IT investment and business performance.
4. To understand how to evaluate and realize the business value of IT.

1.4 Research questions

1. What are the determinants or factors that can improve business performance?
2. What is the role of IT in business or the business value of IT?
3. What is the linkage between IT investment and business performance?
4. How to evaluate and realize the business value of IT?

1.5 Hypothesis

1. IT strategies are positively linked with business performance.
2. The effect of IT strategies varies according to industry.
3. The effect of IT strategies varies according to company size.
4. Strategic management plays a key role in business performance

1.6 Scope of study

1.6.1 Geographical

This study was conducted at Movit Company in Wakiso District near Kampala City off Entebbe Road.

1.6.2 Content

The study reviewed Information Technology (IT) as an independent variable and improvement of the business performance as a dependent variable where focus was on the effectiveness of information technology and the determinants of business performance improvement.

1.4.3 Time scope

The study was carried out for a period of three (03) months that is from February 2012 to May 2012.

1.8 Significance of the study

1. The study depicts the pathway to improve business performance through the use of Information technology(IT) hence will be of great important for both starting and ongoing business as the research will indicate that aligning IT with an organization's corporate objectives is essential to the organization if it wants to succeed in the future..
2. Help managers ensure that IT is aligned with their corporate objectives and thus build a strategic competitive advantage that will provide them with increased visibility, efficiency and profitability to compete in today's changing markets.
3. The study will add some knowledge to the existing literature on the improvement of business performance in universities for students.
4. The study will help companies to establish the effective ways to use information technology.
5. The study will also help company mangers, entrepreneurs and investors to understand the factors or determinants of their business success and the effectiveness of Information technology in controlling and generating revenues.

1.8 Conceptual framework

Information technology

(Independent Variable)

Transactional IT

- Accounting software
- Inventory management, financial accounting, sales computation, data base management
- Computers hardware
- Internet



Strategic IT

- E-business
- E-commerce
- Design software (in Packaging and quality insurance),etc



Informational IT

- Internet
- Email
- Intranet
- Extranet
- Printers, scanners

Intervening variables

IT ASSIMILATION

- human resources Management
- 1.training
- 2.attitude
- 3.motivation
- 4.skills and level of education
- 5.capacity to learn

STRATEGIC MANAGEMET

- 1.Production planning
- 2.Costing & controlling
- 3.Managerial skills
- 4.total quality management (TQM)
- 5.Innovation
- 6.Plants maintenance
7. leadership
8. process management
9. Process management capability

BUSINESS

ENVIRONMENTAL FACTORS

- Competitors
- Input factors(raw materials availability)
- government taxation policy
- customer management

IT SECURITY

- database
- online security

Business performance

(Dependent variable)

Net profits

- Return on sales
- Return on investment
- Net profit relative to competition

Market Performance

- Market share
- Sales growth
- Revenue growth

Customer relationships

- Costs reduction, hence cheaper products and services
- New product
- Strong customer relationships
- Quality products and service

- Reduction in wastage
- Customer satisfaction
- Improvement in relations with customers and suppliers

CHAPTER TWO

REVIEW OF LITERATURE

2.0 Introduction

Our research is strongly related to studies of previous literature examining the relationship between IT investment and business's performance, the business value of IT and the role of Information Technology (IT).

In this section, we briefly survey previous studies in each of these areas that are most relevant to our research.

2.0.1. Measurement of Business Performance

Composite measures are needed to address the multidimensional nature of business performance (Venkatraman and Ramanujam, 1986). Marketing and financial measures are the two most common measures for measuring business performance (Forker et al.1996). This split into marketing and financial dimensions is consistent with strategic management research where market performance represents the long term-trends of a company and financial performance which reflects a company's short-term position (Venkatraman, 1985).

The PIMS (Profit Impact of Market Strategy) database is commonly referred to for measures of market performance (Chang, 1997; Forker et al., 1996). In the PIMS database, market performance is discussed as a company's position relative to its competition and measures such as relative market share and market share rank are mentioned.

Financial performance addresses the question "How do we look to our shareholders?" (Kaplan and Norton, 1992). Financial performance is commonly defined in the context of financial accounting with measures such as return on investment (ROI) and company profits (GAO, 1991: Kaplan and Norton, 1992).

Financial performance emphasizes the monetary measurements of performance whereas market performance is concerned with the size of a company's customer base.

Financial Performance	Market Performance
o Net profits	o Market share
o Return on sales	o Sales growth rate
o Return on investment	o Revenue growth relative to competition
o Net profits relative to the competition	o Market share gains relative to the
o Return on investment relative to the competition	competition

Table 1: Components of performance

2.0.2. Role of information technology (IT) in business

Results on the relationship between IT investment and firm's performance have generally been mixed, though recent evidences tend to show positive relationships. In reviewing past research, Weill (1992) commented that not all IT investment is alike and that the context of the firm is important for converting IT investments into productive outputs. Similarly, Li and Ye (1997) found that the impact of IT investments appear to be dependent on the "firm's contextual factors. In a similar vein, Rai, Patnayakuni and Patnayakuni (1997) emphasized that although IT is likely to improve organizational efficiency, its effect on administrative productivity and business performance might depend on the quality of management processes and IT-strategy links (which is related to the role of IT).

Venkatraman (1989) notes that there are four subjective criteria to evaluate IT organizational performance and include: improved production, cost reduction, the ability to innovate and customer satisfaction.

2.1. Relationship between IT investment and business performance

2.1.1. Negative relationship

Several studies made on the services sector have reported disappointing productivity of IT capital. For example, Roach (1988) reported that massive investments in IT have failed to boost national productivity growth. Roach cited statistics indicating that output per production worker grew by 16.9% between mid-1970s and 1986, while output per information worker decreased by 6.6%.

In a study on the American manufacturing industries, Berndt and Morrison (1994) found that each dollar spent on high-tech capital (computers, instruments and telecommunications equipment) increased measured output by only 80% on the margin. There was a statistically significant negative relationship between productivity growth and the high-tech intensity of capital investments.

2.1.2. No relationship

Turner (1985) conducted a survey of 58 mutual savings banks and found no significant relationship existed between bank performance and IT investment. Similarly, Strassmann (1990) also reported disappointing evidence in several studies. In particular, he found that there is no correlation between IT and return on investment in a sample of 38 service sector firms. He concluded that there is no correlation between spending for computers, profits and productivity.

Another study by Loveman (1994) also concluded that investments in IT showed no net contribution to total output. Similarly, Strassmann (1997) examined the financial records of 66 US companies and found little evidence for any productivity improvement despite 10 years of computerization.

2.1.3. Positive (or mixed) relationship- effectiveness of Information Technology

Many studies have actually revealed mixed findings whereby only certain, if not all, elements of positive relationship between IT investment and firm performance were found. For the purpose of categorization, such studies are classified under this section.

Bender (1986) examined the insurance industry and concluded that total information processing expense was significantly related to the reduction of total operating expenses. In a study of primarily perceptual performance measures, Northrop, Kraemer, Dunkle and King (1990)

studied the payoffs from computerization in government organizations and found that major payoffs occurred in the areas of availability of information, efficiency of operational performance and interaction with the public. Similarly, a study by Harris and Katz (1991) revealed that firm performance is linked to the level of IT investment intensity.

Weill (1992) also found positive relationship between IT investment and firm performance in the manufacturing sector. Findings revealed that heavy use of transactional IT investment was significantly and consistently associated with strong firm performance. Heavy use of strategic IT was found to be neutral in the long term and associated only with relatively poorly performing firms in the short term. Informational IT investment was found to have a neutral effect on performance.

Mahmood and Mann (1993) studied 85 organizations from Computerworld's 'Premier 100a list and concluded that strategic and economic measures, as a group, were significantly related to IT investment measures. Positive and significant relationships were found between certain investment measures and organizational performance. Similarly, Bharadwaj, Bharadwaj and Konsynski (1999) found evidence that IT investments had a positive association with Tobin's q value (a financial market-based measure of firm performance).

In a similar vein, a study by Brynjolfsson and Hitt (1996) indicated that Information Systems (IS) spending has made a substantial and statistically significant contribution to firm output. The authors mentioned that the use of new, firm-level data which were more recent and detailed could have accounted for the sharply different results as compared to Brynjolfsson (1993) which describes the productivity paradox of IT. In another study, Brynjolfsson (1996) found that IT investments generate approximately three times their cost in value for consumers. Similarly, Hitt and Brynjolfsson (1996) showed that IT could increase productivity and create value for consumers, and yet fail to increase profits. Hence, the value of IT is often dependent on the measure used to assess it.

Further, Brynjolfsson and Hitt (1998) emphasized that there is a need to move beyond the productivity paradox and focus on how IT can act as a catalyst for organizational changes.

In a non-US study, Tam (1998) examined the impact of IT investment on firm-level performance in four newly industrialized economies (NIEs). Although he found that IT investment was not

correlated with shareholder's value, the results were mixed for the impact of IT on return on equity (ROE), return on asset (ROA) and return on sales (ROS). In a similar vein, Dewan and Kraemer (1998) examined data from 17 developed countries and found evidence to suggest that developed countries are receiving positive and significant returns on their IT investments.

2.2 IT STRATEGY

The term "IT strategy" will be defined as the strategic use of IT to enable companies to fulfill their intended purpose. The relational aspects of IT include Business-to-Business (B2B), Business-to-Consumer (B2C), and Business-to- Employee (B2E). The second classification Operational covers the operational aspects of IT, including the use of IT to manage quality, costs and flexibility within a company's operation. The final classification Strategic Planning covers the use of IT as a tool for strategic planning, and is divided into internal and external strategic planning.

2.3 Relational Aspects of IT

In the IT context the term "Relational" will be defined as the way IT is being used to facilitate relationships. The relational aspects of IT have been divided into three sections that will cover relations with other businesses (B2B), customers (B2C), and employees (B2E). Murillo (2001) discusses the proliferation of the Internet and its ability to facilitate relations with other external entities such as governments and financial institutions. Traditionally, marketing literature differentiates between marketing to consumers and to businesses (Brierty et al., 1997). Coviello and Brodie (2001) discuss this differentiation in the e-business context, noting that B2C is more transactional, while the B2B is more relational.

2.3.1. Business to Business (B2B) IT Strategy

Business to Business (B2B) IT strategy refers to the utilization of IT to facilitate relationships with other businesses. Inter-organizational cooperation can assist companies in deriving a competitive advantage. The e-commerce procurement life cycle, an e-commerce adaptation of the supplier life cycle, outlines how IT has been important in facilitating relationships between businesses (Archer and Yuan, 2000).

This e-commerce procurement life cycle has seven phases: information gathering, supplier contact, background review, negotiation, fulfillment, consumption, and renewal.

The strength of relationships between businesses is an important aspect of successful e-business initiatives (O'Keeffe, 2001; Galbraith and Merrill, 2001). Rokkan and Haugland (2002) discuss the concept of a relational exchange between two companies and the key aspects of such relationships. The strength of a relationship between two businesses consists of inter-firm trust, relationship commitment and the perceived value of the relationship (Hausman, 2001).

2.3.2. Business to Consumer (B2C) IT Strategy

Business to Consumer (B2C) IT strategy refers to the utilization of IT to facilitate relationships and transactions with the consumers of products or services. In the past, marketing was the main field of literature dealing with consumers. Aldridge et al. (1997) bring the basic marketing principles into an Internet context. This article is very important because it creates a link between traditional marketing principles and their application in an Internet context.

Web site strategies fit into two broad categories; Informational and Transactional (Wen et al., 2001). Informational web site strategy is viewed as a supplement to traditional marketing efforts. In addition to informing people about products and services, many other informational items could be provided, such as organization structure, company history, and financial information (Simeon, 1999). IT is also facilitating the process of building relationships with customers who shop over the Internet (Wang et al., 2000). IT can be used to customize communications and contents for specific customers, increasing the ability of companies to enhance customer relations (Jiang, 2000). Bontis (1998) refers to customer-capital as a company's knowledge of marketing channels and the customer relationships it has developed. The analysis of consumer purchasing and browsing patterns can lead to a greater understanding of customers (Phau and Poon, 2000). Software agents and decision support systems can be employed to learn about and to serve customers better (Sproule and Archer, 2000).

2.3.3. Business to Employee (B2E) IT Strategy

Business to Employee (B2E) IT strategy refers to the utilization of IT to facilitate communication between employees and to help employees in carrying out their jobs.

There is a large body of literature dealing with relations with employees in such fields as organizational behavior and employee relations. Many of these aspects have been enabled by IT.

In addition, fields such as knowledge management have focused on many of the issues including how IT is facilitating employees in carrying out their jobs.

There is a linkage between the impact of management and employee relations on strategic integration (Gunnigle et al., 1998). IT can be used to facilitate the relations between management and employees (Kuei et al., 2001). Ang et al., (2000) address how IT has enabled the relationships with employees in their survey instrument as a section called human resources.

IT can be used to enable employee development and training (Bontis, 1998; Kuei et al., 2001). There are many ways in which an employee's use of IT can increase their workplace productivity (Adeoti-Adekeye, 1997; Udo, 1998). IT has been recommended as a tool to enable employee innovation (Maier and Remus, 2001), as well as a means to increase collaboration between employees (Cheng et al., 2001; Ang, et al., 2000).

IT can allow employees access to an increased amount of information (Ang et al. 2000). Knowledge Management Systems can help employees find information and people with expertise in specific areas (Maier and Remus, 2001). In addition, they note the use of IT to record or codify the knowledge of employees, allowing other employees to make use of it. Human capital is the knowledge which employees possess and the role IT plays in developing it (Bontis, 1998). In a proposed model there were indications of linkage between human capital and business performance

2.4 Operational Aspects of IT

2.4.1 Quality IT Strategy

Operations quality strategy in the context of IT refers to the utilization of IT to monitor and maintain quality standards. Ang et al.'s (2000) survey instrument provided the basis for this section of the questionnaire. In Ang et al.'s (2000) study, output quality assurance and human resource utilization were the top two quality areas where IT was having the most pronounced impacted. Measuring the quality of output involves both service quality and customer satisfaction (Ang et al., 2000). IT can be used to measure product quality and to test for conformance against design specifications (Boyer, 1998). IT has also been recommended for the automation of inspection and to ensure consistent quality (Chow and Lui, 2001). Related to this is the use of IT in monitoring operations for waste and inefficiencies (Ang et al., 2000; Kuei et al., 2001; Grandzol and Gershon, 1998).

2.4.2 Costs IT Strategy

Operations costs strategy in the context of IT refers to the utilization of IT to control expenditures. Process inputs and process outputs can be used to separate costs (White, 1996). Process inputs are those costs that are needed as prerequisites to begin operations, while process outputs are those costs occurring during the course of operation.

Some process input costs which IT has been able to reduce are the costs of staffing and capital (Sohal et al., 2001). Their research also indicated that much of the benefits from IT can be seen in internal cost reductions. IT can be used to reduce the costs of inbound logistics including purchasing and the delivery of supplies (Archer and Yuan, 2000). From a B2B e-business perspective IT can help lower the costs of transactions between businesses (Min and Galle, 1999). Process output costs that IT has been able to reduce include; administration costs

(Udo, 1998), production costs (Boyer, 1998) and inventory costs (Fawcett et al., 1997; Boyer, 1998; Sohal et al., 2001; Min and Galle, 1999).

2.4.3 Flexibility IT Strategy

Operations flexibility strategy in the context of IT refers to the utilization of IT to increase the ability of a company to adapt to market demands. IT has been put forth as a mean for increasing a company's responsiveness to market needs (Sohal et al., 2001). Another aspect of flexibility is a company's ability to adjust the production of goods and services and to adjust the mix of goods and services which are being produced (Boyer, 1998).

New product development is another component of flexibility (Noble, 1997). The ability to reduce the development time for new products and the ability to increase the frequency of introducing new products to the market are both aspects of new product development.

2.5 Strategic Planning

Strategic planning issues can be divided into those which are internal and those which are external to a business (Hooft and Stegwee, 2001). This breakdown can also be seen in the traditional SWOT Analysis which uses an external analysis of a company's threats and opportunities and an internal analysis of a company's weaknesses and strengths (Coulter, 2002).

2.5.1 Internal

Internal Strategic Planning refers to the utilization of IT to aid a business in its internal strategic decision-making process and implementation. IT has been put forth as a mean to facilitate business decision making (Adeoti-Adekeye, 1997; Basu et al. 2000). IT can be used throughout the strategic planning process, beginning with identification of strategic issues through to the documentation of strategic plans (Ang et al., 2000). Sophisticated software can aid in the managerial decision-making process (Bose and Sugumaran, 1999).

IT can be used as a tool to implement strategy and aid in organizational coordination with far reaching affects into a company's business processes and business structures (Hasan and Tibbits, 2000; Davidson, 1999; Hammer, 1990).

2.5.2 External

External Strategic Planning refers to a company's utilization of IT to derive advantage from its external environment. Companies can derive a competitive advantage from their ability to deal with their external environment (Madhok 2001). Atkinson et al. (1997) discussed the development of organizational knowledge regarding the entities around a business. Tracking industry trends, gathering information from stakeholders, and forecasting potential opportunities are also important aspects of business strategy (Venkatraman, 1985).

IT has been noted as a strategic tool which can aid companies in staying ahead of the competition (Davis and Dibrell, 2002). IT can facilitate business relations with external entities (Hasan and Tibbits, 2000). Relations with governments, the general public, investors and associations have all been put forth as some of these external entities (Murillo, 2001). IT allows companies to discover and develop new and profitable global markets which were not previously accessible (Sakaguchi and Dibrell, 1998; Damanpour and Damanpour, 2001). Chae and Hill (2000) outlined how IT can be used as a marketing tool to reach global consumers and strategies for expanding a company's customer base. IT has been recommended as a tool for improving the corporate image of companies (Sohal et al., (2001). The Internet has also made new sources and methods of financing available (Galbraith and Merrill, 2001). Kuei et al. (2001) discussed how IT can aid in finding a larger number of potential suppliers and in collecting important supplier information. Their research suggests that improved management of quality in the supply chain can lead to increase business performance.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This section focus on the research methods and, instruments used to carry out the study. It specifies the study design, data sources, data collection instruments, and problems encountered.

3.1. Research design

A research design is a master plan specifying the methods and procedures for collecting and analyzing the needed information (Zikmund, 2003).The case study research design was used. The research methodology of this study entailed exploratory research. The main purpose of exploratory research was to clarify problems experienced with the business value of IT and IT benefits realization.

3.2 Research population:

The population to be sampled includes customers, suppliers, employees, management amounting to 100 people

3.3 Sampling procedure:

Sampling according to sloven allows the researcher to sample the population with desire degree of accuracy. It gives the researcher an idea of how large his sample size needs to be to ensure a reasonable accuracy of results. The researcher will use a sampling population size of 100 people with a margin of error 0.05 (5%) to estimate the sample size as shown below.

$$n=N/(1+Ne^2) \quad \text{where}$$

n=sample size, N=population size, E=margin of error.

3.4 Sample size:

The researcher used sloven's formula to ascertain the sample size.

$$n=N/(1+Ne^2)$$

$$n=100/ (1+100x0.05x0.05)$$

$$n=\underline{80 \text{ people.}}$$

3.5 Data collection instruments:

The questionnaire

The questionnaire is correctly designed for collecting data in accordance with the specifications of the research question and hypothesis. It is prepared and issued to 80 respondents including customers, employees, suppliers and management. The questionnaire contained a number of questions related to a research topic and specific aspects of the topic. Out of 80 questionnaires issued to various participants only 50 respondents answered and handed back the questionnaires to the researcher.

Interview guide:

The researcher subjects the participant to a series of questions about the research topic and each topic provides information about specific aspects of the topic. The researcher through face to face interaction, phone interaction and the internet/computer interaction asks direct or indirect questions to the respondent at a time who in turn answers them.

3.6. Data analysis

Data analysis is the application of reasoning to understand and interpret the data that has been collected. Standard editing and coding procedures were used. Data were categorized according to meaningful categories of responses. Simple tabulation and summarizing the appropriate details of the responses was utilized to analyze the data.

3.7. Limitations o the study

1. Professional secrecy was one of the problems the researcher experienced whereby the respondent did not give the appropriate information.
2. Financial constraints were also one of the limitations of the study and this was minimized through revising the budget and contributions from parents, friends and other well wishers.
3. Time was also another limiting factor.
4. Lack of available qualitative and quantitative research after the year 2000 on the business value of IT.

3.8 Validity and reliability of instruments:

Validity simply means the accuracy of data while reliability is the consistency of data .The instruments used yielded valid and consistent data evidenced by the similarity of responses from the participants both using questionnaires and interview guides.

CHAPTER FOUR

PRESENTATION, INTERPRETATION AND ANALYSIS OF DATA

4.0 Introduction

This chapter deals with giving meaning to raw data gathered from questionnaires and checklist from respondent, it involves presentation, analyzing and interpreting to make sense. It was done after every research parameter. In this research, the researcher based his findings only on the data collected during the research, each research questions was dealt with independently.

4.1 Response on the determinants or factors that can improve business performance.

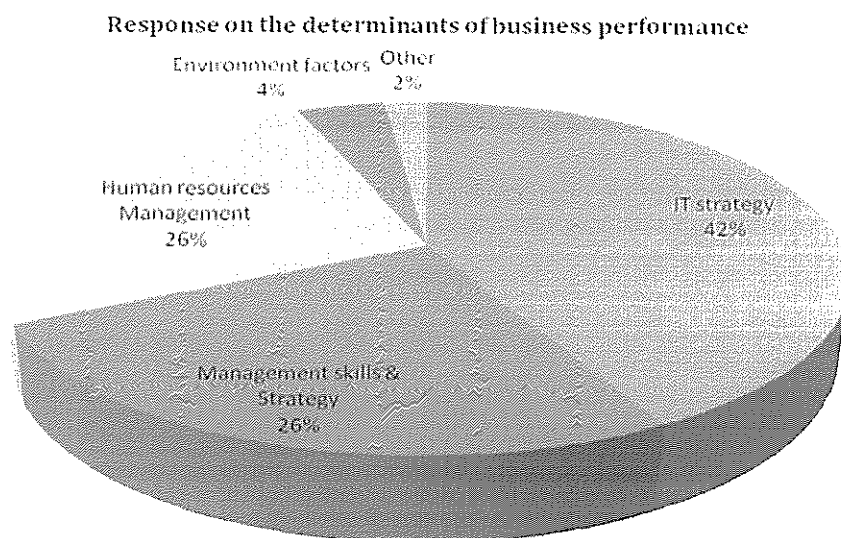
Table 1: Response on the determinants or factors that can improve business performance

Type of response	Response	Percentage
IT strategy	21	42
Management skills & Strategy	13	26
Human resources Management	13	26
Environment factors	2	4
Other	1	2
Total	50	100

42% of the respondents supported the review that IT strategy is the major factor or determinant of business performance. 26% of the respondent held the view that managerial skills and strategy are the most important factors that can enable the business growth. Manager while planning, directing, controlling and evaluating makes business decisions that can help an organization achieve its goals and objectives. Also 26 % out of 50 respondents cited that the relation between management and employees and the human resources management play an important role in business performance. Employees' motivation through cash or non cash incentives, and other awards like promotion, reasonable salary and wages and a good condition of work is effective in improving business performance. 4% of the respondents here think that the environment could

play a key role in business performance; this perspective is comprised of the government policies on taxation, competition, climate, business location, etc. and 2% insist that business performance is determined by other factors like availability of raw materials and availability of funds necessary for investments.

Fig.1.1. Perception of staff on the determinants or factors that can improve business performance.



4.2. Response on the business value of IT in your firm

Table 2: Response on the business value of IT in your firm

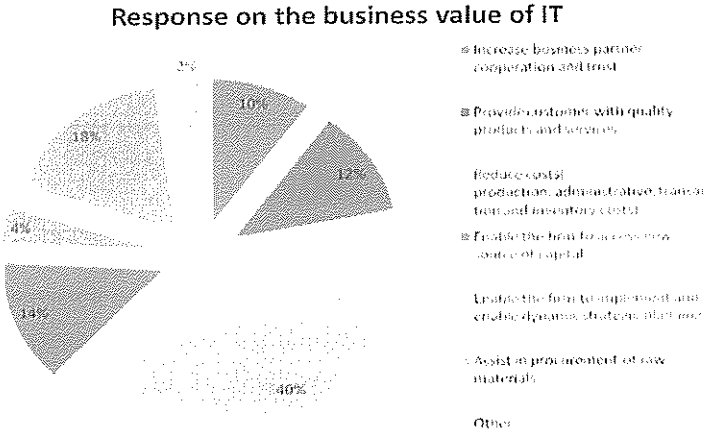
Category	Frequency	Percentage
Increase business partner cooperation and trust	5	10
Provide customer with quality products and services	6	12
Reduce costs(production, administrative, transaction and inventory costs)	20	40
Enable the firm to access new source of capital	7	14
Enable the firm to implement and enable dynamic strategic planning	2	4
Assist in procurement of raw materials	9	18
Other	1	2
Total	50	100

10% the respondent attributed the advantage of the information technology (IT), to the increase of business partner cooperation and trust through adequate presentation of financial statements aided by accounting software, quite contact with the partner through email and internet and the rapid availability of information. 12% of the respondents however held that IT enables their firm to provide customer with quality goods and services. While 40%, the majority of the population cites that information technology (IT) reduces production, administrative, transaction and inventory. IT has been used widely by their firm to reduce the high cost of paper works, reduce inventory theft and obsolescence, minimizing costs relating to errors if the work was manual done, etc., 14% of the respondents support the idea that IT enables the firm to access new source of capital through grants and other donations that are available on the internet.

Only 4% of the respondents think that IT can provide management with great tools and support while implementing a strategic planning. The firm is using online procurement for much of its purchases on raw materials and 18% of respondents think that IT is a greater enabler of e-procurement using E-business and Internet. A tool that is enabling them to acquire quickly new supply on the materials and hence avoiding shortage on finished goods stock. While 2% indicate that value or role that IT plays in the organization is different from the above cited and insist that IT is just proving their organization a means of communication through emails and internet.

It is shown in pie chart below:

Fig.1.2. Perception of staff on the business value of IT in their firm



4.3 Response on how their organization evaluates and realizes the business value of IT.

Table 3: Response on how their organization evaluates and realizes the business value of IT.

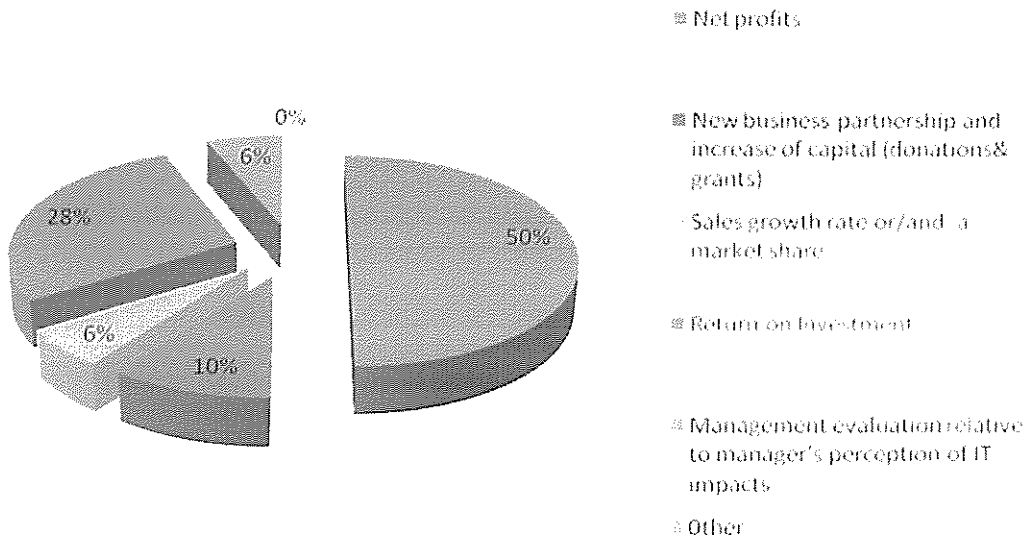
Type of response	Number	Percentage
Net profits	25	50
New business partnership and increase of capital (donations& grants)	5	10
Sales growth rate or/and a market share	3	6
Return on Investment	14	28
Management evaluation relative to manager's perception of IT impacts	3	6
Other	0	0
Total	50	100

Most respondents i.e. 50% of the staff indicated that Net profits is the principal tool that their organization is using and an effective indicator that IT has been of great value. While 10% think that their business realizes the business value of IT as they acquire new sponsors and increase their operating capital.

6% of the respondents insist that they evaluate and realize the business value of IT through sales growth rate comparing to the IT investment in previous period and that of the current period relative to sales. 28% of the respondents think that their business is using the return on investment method to measure and realize their business performance. While 6% insist that their management evaluation relative to the manager's perception of IT impacts is used to evaluate and realize the business value of IT. None of the respondent indicates any method other than the above cited.

Fig.1.3. Perception of staff on how organization evaluates and realizes the business value of IT.

Response on how the organization evaluates and realizes the business value of IT



CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

In this chapter, we will present the conclusive results obtained throughout the literature study and the experience survey will be discussed. The summary of the study is included as recommendations to the study will be considered for future investigation and further research.

5.1. Summary

Chapter one serves as an introduction to the study by outlining the problem identified as an outcome of the literature review. The motivation for conducting the research, the research objectives, hypothesis, and the significance of the study and the overall conceptual framework of the study is discussed.

Chapter two provides a literature review and discussion of 'the role of IT in improving the business performance' concept. The importance of defining the business value of IT is highlighted and the concept is further defined to illustrate the key elements of value and organizational performance. The importance of cooperation between business and IT to achieve business objectives is discussed as IT is becoming increasingly important in defining corporate strategies.

Chapter three describes the research methodology used in conducting the study and discusses the research design, sample, and the data collection instrument.

Chapter five presents the analysis of the data obtained from the questionnaire completed that was conducted at MOVIT.

5.2. Conclusions

The conclusions are formulated in relation to the objectives of this study. With regards to the theoretical objectives of this study, the following conclusions have been made:

To determine what MOVIT view as the role of IT in their business or the business value of IT and how organizations measure the business value of IT.

The exploratory study in the form of a questionnaire reveals that MOVIT view the business value of IT as being the successful enablement of business objectives and strategies that result in business improvement. MOVIT view of the business value of IT is aligned to the literature that was presented, indicating that the organization is well positioned to better understand the business value of IT, to measure and realize. The benefits and the direct business value is measured by the use of traditional financial measures such Return on Investment (ROI), Net profits and return on sales. And market measure such as market share and sales growth rate. The Management evaluation relative to manager's perception of IT impacts is also used. MOVIT attaches to some extent importance to the IT in finding rapidly new donors and hence realize the business value of IT as their capital increases and the expansion of the business in terms of new products and projects is realized.

To define the role of IT in Business or the business value of IT, the correct understanding of 'the business value of IT' is imperative as this allows an organization to successfully decide how the organization will measure and realize the IT benefits from IT investments. This research defines the business value of IT as the measures that demonstrate how IT-related changes and investments contribute over time to improved business performance, competitiveness and economic growth.

To understand the linkage between IT and business (strategic alignment).

The link that exists between IT and business is the organization's ability to harmonize the organization's overall strategy and IT systems.

Strategic alignment is the appropriate use of IT in the integration and development of business strategies and corporate goals. This linkage enables an organization to maximize the organization's IT investments and transform the organization to create and improve efficiencies, reduce costs, create barriers to entry, improve customer and buyer and supplier relationships, and to create new products and business solutions. Strategic alignment highlights the role of IT in the development of business strategies, the strategic fit between strategy and infrastructure as well as a functional integration between business and IT. IT has become an important enabler of

business strategies in such areas of mass customization, competitive differentiation, quality improvements, and process automation and improvement. The exploratory study indicates that the business value of IT has a strategic and high potential role in MOVIT and has shown positive linkages among competitive strategy, IT, and performance.

To understand how to evaluate and realize the business value of IT.

The Benefits management framework is the procedural approach of how to manage the benefits evaluation to realize the benefits of IT investments. This framework aims to be an entire life-cycle approach to attaining beneficial returns on IT investments and supports business users to focus on how to achieve system pay off and contribute to business objectives. Benefits management ensures that a change in business achieves the expected results by translating business objectives into identifiable measurable benefits that can be systematically tracked. The exploratory study indicates that MOVIT adopt a benefits management framework/methodology are successful in measuring and realizing the benefits of IT investments.

To determine the factors or determinants of the business performance.

To understand the determinants of the business performance, the literature study reveals that MOVIT should not rely only on the effectiveness of IT but should consider and attach much attention to the human resources management as well as to the managerial strategy. The study also reveals that these other factors align to IT are really effective in improving business performance. Environmental factors must also be of consideration when implementing new projects.

5.3. Recommendations

The experiential knowledge gained through the empirical study results and the theoretical knowledge gained through the literature results, can be communicated to the respective departments of MOVIT as well as to the top level of management. Continuous qualitative and quantitative research on the role of IT in business performance or business value of IT should be conducted regularly to ensure the applicability of research to current trends and changes within MOVIT and IT.

The study has highlighted an important trend in MOVIT which is the adoption of a benefits management methodology. It is recommended that MOVIT should focus on adopting and utilizing a benefits management methodology as this will be critical to successfully measuring and realizing the business value of IT and the benefits from IT investments.

REFERENCES

- Aldridge, A., K. Forcht, et al. (1997). "Get linked or get lost: marketing strategy for the Internet." *Internet Research: Electronic Networking Applications and Policy* 7(3): 161-169.
- Archer, N. and Y. Yuan (2000). "Managing business-to-business relationships throughout the e-commerce procurement life cycle." *Internet Research: Electronic Networking Applications and Policy* 10(5)
- Atkinson, A. A., J. H. Waterhouse, et al. (1997). "A stakeholder approach to strategic performance measurement." *Sloan Management Review* 38(3): 25-37.
- Ang, C.-L., M. Davies, et al. (2000). "Measures to assess the impact of information technology on quality management." *International Journal of Quality & Reliability Management* 17(1): 42-66.
- Adeoti-Adekeye, W. B. (1997). "The Importance of Management Information Systems." *Library Review* 46(5): 318-327.
- Boyer, K. K. (1998). "Longitudinal linkages between intended and realized operations strategies." *International Journal of Operations & Production Management* 18(4): 356-373.
- Bender, D. H. (1986). Financial impact of information processing. *Journal of Management Information Systems*, 3(2), 22-32.
- Bose, R. and V. Sugumaran (1999). "Application of Intelligent Agent Technology for Managerial Data Analysis and Mining." *The DATABASE for Advances in Information Systems* 30(1): 77-94.
- Bontis, N. (1998). "Intellectual capital: an exploratory study that develops measures and models." *Management Decision* 36(2): 63-76.

Berndt, E.R., & Morrison, C.J. (1994). *Assessing the productivity of information technology equipment in the U.S. manufacturing industries*. National Bureau of Economic Research Working Paper 3582.

Brynjolfsson, E. (1993). The productivity paradox of information technology. *Communications of the ACM*, 36(12), 67-77.

Brynjolfsson, E., & Hitt, L. (1996). Paradox lost? Firm-level evidence on the returns to information systems spending. *Management Science*, 42(4), 541-557.

Brierty, E. G., R. W. Eckles, et al. (1997). *Business Marketing Management*. Upper Saddle River, NJ, Prentice-Hall, Inc.

Coulter, M. K. (2002). *Strategic Management and Policy*, Prentice-Hall.

APPENDIX I: RESEARCH INSTRUMENTS

(a) Questionnaire

Investigating the role of information Technology in improving business performance

Dear Participant,

You have been invited to participate in a research study of “Investigating the role of information Technology in improving business performance”. The aim of the study is to gain insight as to what extent MOVIT considers the business value of IT. Evaluating IT investments is considered problematic in business in general. The reasons for this are due to the fact that the benefits of IT are intangible and thus calculating the return on investment (ROI) is often difficult.

This survey asks for your perception on the role of IT in your Business. A number of individuals were selected and your participation in the survey is based on your experience and exposure IT related works.

Your participation involves answering questions regarding your experience with IT related works and the role of IT in your business thereof. The survey should take no longer than 40 minutes to complete and there are no known or anticipated risks to participation in this study. You will be contributing to the scientific research of the business value of IT. Participation is voluntary and confidential. The data will be summarized and no individual responses will be identified for reporting purposes. The study is conducted by MUGAJJU RONALD in partial fulfillment to a Bachelor Degree in Business Administration (finance option) of Kampala International University.

If you have any questions about the study or require additional information please feel free to contact me.

Thanking you in advance for you participation.

Sincerely,

Mugajju Ronald

Section A: Participant Information

Names:	
Position/ Role:	
Department:	
Management Level:	
Employed since:	

Section B: Determinants of business performance

1. What do you identify as the most relevant factor or determinant of business performance	Please tick the appropriate box
a) IT strategy	<input type="checkbox"/>
b) Managerial skills & strategy	<input type="checkbox"/>
c) Human resources management(Employees –manager relations, wages & salary, motivation, etc)	<input type="checkbox"/>
d) Environmental factors (weak or no Competition, government tax policy, business location, etc.)	<input type="checkbox"/>
e) Other factors(Please specify)	
2. Which factors do you think can hinder business performance	

Section C: The role of IT in business (Business value of IT)

3. What role do you think IT plays in your business?	Please tick the appropriate box
a) Increases business partner cooperation and trust	<input type="checkbox"/>
b) Provides customer with quality goods and services	<input type="checkbox"/>
c) Reduces costs(production, administration, transaction and inventory costs)	<input type="checkbox"/>
d) Enables your organization to access new source of capital	<input type="checkbox"/>
e) Enables your organization to implement dynamic strategic planning	<input type="checkbox"/>
f) Assist in procurement of raw materials	<input type="checkbox"/>
g) Other (please specify)	
4. Which perspectives and/ or criteria of the role of IT in business do you think are important to consider?	

Section D: IT investments

5. What do you understand by the term IT investment?	
--	--

6. Is there a process in your organization to monitor and realize benefits that an IT investment should give?	Yes <input type="checkbox"/> No <input type="checkbox"/>
7. If yes, please outline this process	
8. Is there anyone responsible for monitoring and realizing those benefits?	Yes <input type="checkbox"/> No <input type="checkbox"/>
9. How your organization measures, evaluates and realizes the business value of IT?	Please tick the appropriate box
a) Net profits b) New business partnership and increase of capital (donations & grants) c) Sales growth rate and/or market share d) Return on investment e) Management evaluation relative to manager's perception of IT impacts	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
f) Other	

Section E: benefits managements

10. What types of benefits does your senior manager perceive are being provided by IT?	
11. How confident are you that IT is actually delivering these benefits to your organization?	Not at all Very 1. <input type="checkbox"/> 2. <input type="checkbox"/> 3. <input type="checkbox"/> 4. <input type="checkbox"/> 5. <input type="checkbox"/>

12. What are the underlying issues that drive your organization's investment in IT?	
13. Do you have a process to ensure that IT projects are linked to business objectives?	Yes <input type="checkbox"/> No <input type="checkbox"/>
14. If yes, please outline the process	

Section F: the linkage between it and business performance

15. Are IT projects linked to your organization objectives?	Yes <input type="checkbox"/> No <input type="checkbox"/>
16. If yes, describe how	
17. Does your organization provide necessary training to the staff user of IT related works?	Yes <input type="checkbox"/> No <input type="checkbox"/>
18. What factors do you think can hinder the success of an IT project and what do you suggest?	

Section g: The future

19. Is there anything you would like to change in IT investment evaluation and benefit realization?	Yes <input type="checkbox"/> No <input type="checkbox"/>
20. If yes, what would you change	
21. Is there anything that you think is	Yes <input type="checkbox"/> No <input type="checkbox"/>

important that we have forgotten to ask?	
22. If yes, please specify.	

b) Interview guide

Participant's information

Name	
Positions/Role	
Department	

- i) In your own understanding what is information technology (IT).
- ii) How does your company use information technology in the different business models?
- iii) Do you have IT management systems in your company?
- iv) How does your organization measure, evaluate and realize the business value of IT?
- v) What positive development has IT registered in your organization?
- vi) How does your company use IT to boost Business?
- vii) What role do you think has IT played in your business?
- viii) How your organization ensured that the IT benefits in your organization are linked to the objectives of the organization
- ix) How has your organization manage to cope with
- x) What are the different benefits that IT investment gives to your organization?
 - ix) What short comings has your business registered as a result of using IT?
- x) What future prospects does your organization look to ensure maximum utilization of IT investments in your organization?

Thank you

APPENDIX II

PROPOSED BUDGET ESTIMATES

ITEM	TOTAL COST (UGSH)
Stationery	50,000
Printing And Binding	100,000
Data Collection	100,000
Compilation And Analysis	100,000
Contingencies	30,000
Total	380,000

APPENDIX III

TIME SCHEDULE OF ACTIVITIES

TIME IN MONTHS	ACTIVITIES
October - December , 2011	Research Proposal Writing
December 2011 -February 2012	Data Collection
February-April 2012	Dissertation Writing
May 2012	Submission Of Dissertation