INFORMATION TECHNOLOGY CONCEPTUALIZATION AND PERFORMANCE IN DEPOSIT TAKING MICROFINANCE INSTITUTIONS IN KENYA

MWANIA JOSEPH NZUKI
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2013
DECLARATION

This is to declare that this research paper is my original work that has not been presented to any other University or Institution of Higher Learning for Examination.

Signed……………………………..  Date …………………………………

STUDENT: JOSEPH NZUKI MWANIA
REG. NO: D61/70927/2007

DECLARATION BY SUPERVISOR:

This is to declare that this paper has been presented for examination with my approval by the University

Signed……………………………..  Date …………………………………

SUPERVISOR: DR. KATE LITONDO
DEDICATION

This project is dedicated to daughters Lisa Kavutha and Talia Wangeci who continue to inspire me to attain the best for both myself and my family.
ACKNOWLEDGEMENT

I wish to express my gratitude to my supervisor, for her guidance, support, understanding and her availability for consultation. I am grateful to my parents who have always supported and encouraged me in pursuing this course. Special thanks go to staff in various Deposit Taking Microfinance Institutions for the co-operation and support they accorded me. Finally, I thank Jehovah God for giving me strength to overcome all challenges faced during the course.
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<thead>
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<th>Abbreviation</th>
<th>Description</th>
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<tr>
<td>ADB</td>
<td>African Development Bank</td>
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<tr>
<td>CBK</td>
<td>Central Bank of Kenya</td>
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<tr>
<td>DTMFIs</td>
<td>Deposit Taking Microfinance Institutions</td>
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<tr>
<td>DTM</td>
<td>Deposit Taking Microfinance</td>
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<tr>
<td>ERP</td>
<td>Entreprise Resources Planning</td>
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<tr>
<td>ICT</td>
<td>Information and Communications Technology</td>
</tr>
<tr>
<td>IS</td>
<td>Information Systems</td>
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<tr>
<td>IT</td>
<td>Information Technology</td>
</tr>
<tr>
<td>KWFT</td>
<td>Kenya Women Finance Trust</td>
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<tr>
<td>MFI</td>
<td>Microfinance Institutions</td>
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<tr>
<td>PC</td>
<td>Personal Computer</td>
</tr>
<tr>
<td>SACCO</td>
<td>Savings and Credit Co-operative Society</td>
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<tr>
<td>SMEs</td>
<td>Small and Medium Size Enterprises</td>
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<tr>
<td>SMEP</td>
<td>Small and Micro Enterprise Programme</td>
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ABSTRACT

It has been matter of concern for firms in making decisions to invest or not to invest in Information Technology (IT) to provide improvements in productivity and business efficiency. There is no conclusive evidence that the high levels of spending on IT by businesses improves their productivity, leading to the coining of the term IT Productivity Paradox. The impact of Information Technology investments in the Kenyan banking system is an important issue as this type of investment constitutes a substantial component of costs and exerts a strong influence on Deposit Taking Microfinance Institution (DTMFI) operations and strategies. The main objective of this study was to investigate the relationship between conceptualization of Information Technology and DTMFIs' performance.

A survey approach was deemed necessary in unearthing general views. This study adopted a simple random sampling technique to collect the data for analysis of the relationship between conceptualizations of IT and DTMFIs performance. The study used primary data gathered from the respective DTMFIs through the use of questionnaires administered to the relevant departments of the various DTMFIs under study. The questionnaire was administered to 67 respondents comprising of managers at the same level of the organization for each DTMFIs. This study yielded data that require both qualitative and quantitative analysis. From the findings and discussions, the study concludes that DTMFIs conceptualize IT as means to create an impact in performance. DTMFIs also make decisions to conceptualize IT due to industrial pressure. The study concludes that firms make decisions to invest in IT depending on financial capabilities as well as IT technical abilities. Organizational culture or value also influences DTMFIs decision making in investing in IT. The study also made a conclusion that implementation of IT should be done to save resources, reduce costs and make firms satisfy customers well and generally improve firms performance. The study recommends organizations to invest in IT to improve staff capabilities, provide choice of communication and also provide quality products and services. This will make the organizations to evaluate IT productivity capabilities and IT conceptualization’s impact in improving organizational performance. The study also recommends businesses to focus on specific strategies for firm to improve its profitability and eventually increase in revenue.
CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

The Information Technology (IT) industry has been the ultimate growth business; producing a series of breakthroughs that have created new jobs, spawned new companies and changed the way the world did business in the last thirty years (Barney, 2003). In the 1950’s, 1960’s and 1970’s, IT was used primarily as a tactical tool locked away in a server room located in one place and controlled by a centrally organized IT unit (Brown, 2003). IT business value scholars were motivated by a desire to understand how and to what extent the application of IT within firm’s leads to improved organizational performance. Researchers have adopted diverse conceptual, theoretical, and analytic approaches and employed various empirical methodologies at multiple levels of analysis (Dedrick et al. 2002).

Devaraj and Kohli (2003) examined the impact of IT organizational performance and one of his key findings was that IT led to large productivity gains in organizations. Marco, (2006) also examined the impact of IT capability on business performance and found out that superior IT drives top-line growth and a solid connection exists between IT capability and organizational productivity. Brynjolfsson et al. (2002) has shown that information technology may indeed contribute to the improvement of organizational performance, however, this depends on a variety of factors including the type of IT, management practices, organizational structure, as well as the competitive and macro environment. As the dependence of Information Systems (IS)/information technology has grown in modern organizations, IT investments have soared in the last couple of decades. Large amounts of money are spent with the hope that the investments
will generate value for the business organizations using the systems (Dehning and Richardson, 2002).

1.1.1 Information Technology Conceptualization

IT conceptualization is the ability to invent or formulate an idea or concept. There are discernibly different patterns among conceptualizations of information, extending beyond hardware and software to include a range of contextual factors associated with its application within organizations (Markus and Robey, 2004). When making decision on IT adoption, organizations have different conceptions on the various impacts that IT would have on them.

Conceptualization helps to determine the nature of IT in organizations. Understanding how IT has been conceptualized provides a firm foundation from which to derive a systematic and theoretically based definition of information technology. Five conceptualizations of the IT artifact have been adopted in IS research (Orlikowski and Iacono, 2001). In regards to tool view, IT is conceptualized as an engineered tool that does what its designers intended, for example, productivity enhancement and reshaping social relations. Such a view is frequently used within IT business value research. In Proxy View, IT is conceptualized by its essential characteristics, which are defined by individual perceptions of its usefulness or value, the diffusion of a particular type of system within a specific context, and its investments.

Ensemble view focuses on the interaction of people and technology in both the development and use of IT. Case studies examining IT business value within specific organizations often adopt the ensemble view (Kraemer et al. 2000). Further, computational view focuses on IT
algorithms, systems development and testing as well as data modeling and simulation. It is less applicable to IT business value research. Finally we have nominal View. Studies adopting the nominal view invoke technology in name but not in fact. Nominal view articulates that Technology as absent and cannot be described, conceptualized or theorized (Williams and Frolick, 2001).

Barney, (2003) found a positive association between IT conceptualization and improving organization savings, reducing costs of operations, reducing cost per transaction and enabling firms to satisfy their customer’s needs. Brynjolfsson et al. (2002) found that IT conceptualization influences a firm’s profitability in the financial sector and those operational improvements gained from applying IT within the organization may not translate to financial measures of performance. Cooper et al. (2000) found that a change in organizational thinking accompanied by appropriate IT investment leads to improved and transformed business processes and competitive advantage.

When IT availability increases and costs decrease, IT becomes a commodity input. From a strategic standpoint, IT becomes invisible and essential to competition and consequential to strategy. Teece and Pisano (1997) in their study found that competitive advantage stems from various organizational dynamic capabilities, which can relate to the effective use of IT. This results in timely response, rapid and flexible product innovation, and enhanced management.

1.1.2 Organization Performance and Measure

Ryan and Frederick, (2003) proposed that organizations must constantly seek ways to increase employee productivity and enhance job performance. Facilitating employee feelings of vitality,
defined as the subjective feeling of being alive and alert, may be critical to achieving these ends, because employees who are vital feel alive and they are mentally and physically vigorous. IT conceptualization has profoundly changed the way that business is conducted. These changes are encouraged by the ability of IT that enables better information processing, sharing, and faster responsiveness, and thereby better coordination of the economic activities between separate units of an organization and across organizations (Brynjolfsson, 2003). Cron and Sobol, (1983) reported that technology offers a way of developing skills, enhancing productivity and quality of work, building staff loyalty to the firm, and most importantly, increasing individual and organizational performance to achieve business results. According to Li (2009) information technology conceptualization is essential to improve productivity as it is accompanied by extensive training.

1.1.3 Deposit Taking Microfinance Institutions

The enactment and endorsement of Deposit Taking Microfinance (DTM) Institutions Act (The Microfinance Act 2006) by the parliament gave birth to Microfinance Deposit Taking Institutions which are allowed to mobilize and intermediate savings from the depositors (Mutua, 2003). Microfinance institutions world over have been identified as critical institutions to nations quest for solutions to the development challenge (CGAP, 2002). An effort to modernize and uplift operations of microfinance institutions gave rise to Deposit Taking Microfinance which is regulated under the MFI Act 2006 by Central Bank of Kenya (CBK, 2006). According to African Development Bank (2000) and Otero and Maria (2002), the implementation of the policy was deemed important for savings mobilization and proper management of public deposits by implementing basic minimum level of prudential regulations. Mutua, (2003) argues
that prudential requirements enable DTMs to manage resources properly which ultimately improves the efficiency and loan costs.

The Microfinance Act of Kenya 2006, seeking to streamline the operations of the Microfinance Institutions (MFIs) in Kenya, addresses licensing provisions, minimum capital requirements and minimum liquid assets, submission of accounts to the Central Bank, supervision by the Central Bank and limits on loan and credit facilities. The Deposit Taking Microfinance Institutions (DTMFIs) are regulated under the Bill to provide savings, credit, and other financial services to small and medium size enterprises (SMEs) and to low-income households in both rural and urban areas. There are nine (9) licensed Deposit Taking Microfinance Institutions in Kenya which include Faulu Kenya DTM Limited, Kenya Women Finance Trust DTM Limited, REMU DTM Limited, SMEP DTM Limited, UWEZO DTM Limited and Rafiki DTM Limited, Century DTM Limited, SUMAC DTM Limited and U&I DTM Limited (CBK, 2013). All these DTMFIs have their Headquarters in Nairobi.

1.2 Statement of the Problem

It has been a matter of much debate whether or not investment in Information Technology (IT) provides improvements in productivity and business efficiency (Williams and Frolick, 2001). For several years, scholars and policy makers lacked conclusive evidence that the high levels of spending on IT by businesses improved their productivity leading to the coining of the term IT Productivity Paradox. The IT Productivity Paradox has brought a lot of debate whether investments in IT have resulted to improvements in productivity or value for that matter (Sawyer, 2004). The impact of IT investments in the Kenyan banking system is an important issue as this type of investment constitutes a substantial component of costs and exerts a strong
influence on bank operations and strategy (Dehning and Richardson, 2002). A bank's information system places strong constraints on the type of products offered, the degree of customization and the speed at which banks can respond to competitive opportunities or threats (McKinsey Global Institute, 2001).

Mulandi (2010) did a survey on the factors determining profitability of microfinance institutions in Kenya where Information Technology was identified as one of the factors affecting the performance of the MFIs. However, the study did not go into detail on the IT factors that affect performance. Mwongeli (2009) identified the need for Kenya's MFIs to adopt and use modern innovative technology in order to survive and compete in the domestic and global financial markets. However, the study did not go into depth of how the MFI have benefitted or intend to benefit from adoption of IT. A study by Macharia (2011) looked at factors that contributed to the overall sustainability of microfinance institutions in Kenya and pointed out IT to be one of the factors. This gives ground for continued study on how IT on its own contributes to such sustainability keeping in mind that sustainability is achieved upon continued profitability.

The conceptualization of IT in DTMFIs in Kenya has not been confirmed by the existing empirical evidence. Most financial services use IT at some point in the production and delivery process. DTMFIs infrastructure places strong constraints on the type of products offered, the degree of customization and the speed at which they respond to competitive opportunities or threats. This has determined the relationship between IT conceptualization and performance at DTMFIs in Kenya. The primary research question most suitably addressed how conceptualization of IT contributes to improved performance of Deposit taking Microfinance institutions in Kenya. This study also established how DTMFIs conceptualize IT and the extent to which IT conceptualization influences performance in DTMFIs.
1.3 Objective of the Study

The objective of this study was to investigate the relationship between conceptualization of information technology (IT) and performance in Deposit Taking Microfinance Institutions.

1.3.1 Specific Objectives:

i. To establish how Deposit Taking Microfinance Institutions conceptualize their IT investment

ii. To determine the influence of IT conceptualization on Deposit Taking Microfinance Institutions performance

1.4 Value of the Study

The management teams of DTMFIs will gain insight on factors that affect adaptation of various IT advancements in their institutions. They will also envisage compatibility of IT to the cultures and values to improve performance. The study findings are also significant to other financial institutions as it provides the importance of conceptualizing IT as a means to enhance staff capabilities, provide choice of communication and a determinant to provide quality products. This will make the institutions management to evaluate IT productivity capabilities and its impact in improving the firms’ performance. The study also helped researcher gain problem solving skills as well as the skills in academic report writing. In addition, the study has also assisted the researcher acquire the necessary experience in the best practices in conceptualization of IT. Future researchers may also use findings for further research as a secondary source of information.
CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter reviews the existing literature on IT conceptualization. The chapter also discusses theories and empirical review on IT conceptualization. The chapter also presents the relationship between IT conceptualization and the conceptual model of the study.

2.2 Role of Information Technology in Business Performance

Researchers have adopted diverse conceptual, theoretical, and analytic approaches and employed various empirical methodologies at multiple levels of analysis to study the role IT plays in business performance (Dedrick et al. 2002). IT scholars have also adopted diverse conceptualizations of information technology, extending beyond hardware and software to include a range of contextual factors associated with its application within organizations (Markus and Robey 2004). Examining conceptualizations of IT by IT business value researchers reveals that prevailing assumptions have delimited accumulated knowledge in three principal respects.

First and foremost, IT is frequently operationalized using aggregate variables measured in dollars or counts of systems, limiting our understanding of the differential impacts of alternative types of IT as well as the role of usage (Devaraj and Kohli 2003). Furthermore, software is often treated implicitly via assumptive measures or sometimes omitted entirely from the analysis. Given evidence of its association with firm performance (Hitt et al. 2002), there is a need to incorporate software when conceptualizing IT.
Second, IT is frequently assumed to lead to an outcome intended by managers, limiting our understanding of unintended consequences (Markus and Robey 2004). Third, the treatment of the role of IT employees is unsystematic and often excluded from the analysis, hindering our understanding of the role of IT management and technical expertise in generating IT business value. When included, IT employees have been incorporated as being inextricably intertwined with IT within business processes (Kraemer, Dedrick, and Yamashiro, 2000). Previous research has shown that information technology may indeed contribute to the improvement of organizational performance (Kohli and Devaraj 2003).

Despite the enormous promise of IT to affect the biggest technological revolution, disillusionment and even frustration with the technology are evident (Snow, 1996). Interest in the productivity paradox, as it has become known, has engendered a significant amount of research. Although researchers analyzed statistics extensively, they found little evidence that information technology significantly increased productivity in the 1970s and 1980s. A debate initiated by Harvard Business over whether IT matters argued that firms have overestimated the strategic value of IT and overspent on the commodity (Carr 2003).

Expenditure in IT, PCs per employee and other measures of IT investment as a proxy for the impact of IT have consequently failed to find a positive relationship between business performance and IT. As more research is conducted, a clearer picture is gradually being developed of the relationship between IT and productivity. However, productivity measurement isn’t an exact science. There was a negative correlation between total factor productivity and high share of high-tech capital formation during 1968-1986 periods (Morrison and Berndt, 1995).
Brynjolfsson and Hitt (1996) reported positive effects of IT based on output and consumer surplus measures. On the other hand, Landauer (1995) de-emphasizes the findings of recent studies and documents various cases of the trouble with computers. At this stage, the academic research results are inconsistent on a number of dimensions, including measures of performance, methodologies, and data sources. McKinsey Global Institute, (2001) studies show weak or non-existing links between IT and productivity in the US, thus confirming the productivity paradox for the US banking industry. Brynjolfsson and Hitt (2000) found that, on average, IT increases productivity for most of the US industries: hinting that the IT productivity paradox has been resolved for most industries.

2.3 Information Technology Conceptualization

Information Systems (IS) scholars have adopted diverse conceptualizations of information technology, extending beyond hardware and software to include a range of contextual factors associated with its application within organizations (Kling 1980; Markus and Robey 2004). Five conceptualizations of the IT artifact have been adopted in IS research according to Orlikowski and Iacono (2001).

The first conceptualization method is tool view. In this conceptualization, IT is viewed as an engineered tool that does what its designers intended; for example, productivity enhancement and reshaping social relations. Such a view is frequently used within IT business value research, i.e., IT is assumed to be a tool whose intended purpose is to generate value. The values in this view include better social presence, efficient customer service, enhanced productivity and processing of information.
The second conceptualization method is proxy view. In this conceptualization, IT is viewed by its essential characteristics, which are defined by individual perceptions of its usefulness or value, the diffusion of a particular type of system within a specific context, and its investment in financial units. IT business value researchers often adopt this conceptualization in empirical studies using measures such as capital stock denominated in dollars. The measures used in this view include user perceptions of technology, penetration of IT units such as email, internet, mobiles and the impact of monetary resources allocated to IT services.

The third conceptualization method is ensemble view. This view focuses on the interaction of people and technology in both the development and use of IT. Case studies examining IT business value within specific organizations often adopt the ensemble view (Kraemer et al. 2000; Williams and Frolick 2001). Researchers have begun to incorporate the role of organizational co-innovations such as workplace practices (Brynjolfsson et al. 2000). The representations in this view include the roles of stakeholders in design and development, alliances which tie stakeholders, conditions of use of IT in the social context and social structures built into IT systems by the designers (Orlikowski and Iacono, 2001).

The forth conceptualization method is computational view. As the emphasis of the fourth view is on algorithm and systems development and testing as well as data modeling and simulation, it is less applicable to IT business value research. The representations in this view include algorithms and rules used to build or enhance systems and the use of data modeling or simulation to identify processes and structures of systems (Orlikowski and Iacono, 2001).

The fifth conceptualization method is nominal view. Studies adopting the nominal view invoke technology in name but not in fact. An example is the derivation of a two-stage game analyzing
the impact of IT application on productivity which introduces IT solely via its impact on cost reduction and product differentiation (Belleflamme, 2001). According to Orlikowski and Iacono (2001) the nominal view articulates that Technology is absent and cannot be described, conceptualized or theorized.

2.4 Conceptualization of Information Technology and Performance

At the US Computer Worlds’ Premier, IT leaders conference held in 2002, 68% of 150 IT executives said they rarely measured return on investment (ROI) six months after completion of IT projects and 65% said that they did not have the knowledge or tools needed even to calculate ROI (Bushell, 2002). A survey carried out by a consulting firm had the following findings in relation to IT investments. Banks in North America indicate 46% of IT investments have unknown ROI, and in Australia, 53% say ROI for general technology investment is unknown. The CEO of the Commonwealth Bank of Australia branded IT as a “costly affair” at the World IT Congress in March 2002.

In a study of roughly 400 U.S. firms spanning the years 1987 to 1991, Brynjolfsson and Hitt (1996) found that the gross marginal product for computer capital is 81% and the return on IT investment exceeds that of non-IT capital investment. The basic structure of such results is preserved when considering alternative econometric specifications, assumptions, data sets, and time frames. Morrison (1997) found mixed or inconclusive evidence concerning the relationship between the technological IT resource and organizational performance. Many empirical studies using large-sample data sets find support for a positive association between aggregate measures of the technological IT resource and organizational performance (Bharadwaj et al. 1999).
Though fewer in number, some studies find mixed or inconclusive evidence concerning the relationship between the IT resource and organizational performance (Stiroh, 1998).

Surprisingly, the successful use of IT in the banking industry has not been confirmed by the existing empirical evidence (Council of Economic Advisers, 2001; McKinsey Global Institute, 2001). Some studies have attempted to examine correlations between IT spending and total shareholder return (Strassmann, 2003), while others examined how IT influences intermediate variables of operational performance, which in turn drives profits (Barua, Kriebel and Mukhopadhyay, 1995). This seems to suggest the existence of an IT profitability paradox. Brynjolfsson and Hitt, (2000); Jorgenson and Stiroh, (2000) found that, on average, IT increases productivity for most of the US industries post 1995: therefore, the IT productivity paradox has been resolved for most industries.

In IT business profitability the term IT business Performance is commonly used to refer to the organizational performance impacts of IT, including productivity enhancement, profitability improvement, cost reduction, competitive advantage, inventory reduction, and other measures of performance (Devaraj and Kohli 2003).

**Table 2.1  IT Investment Impacts**

<table>
<thead>
<tr>
<th>Performance - Drivers</th>
<th>Outcome</th>
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<tr>
<td>Effective use of IT for Cost-effectiveness</td>
<td>Overall Cost Savings</td>
</tr>
<tr>
<td>Effective use of IT for Asset and Personnel utilization</td>
<td>Optimization of business revenues; Organizational Efficiency</td>
</tr>
</tbody>
</table>
Effective use of IT for Growth in market share and profitability

Effective use of IT for Business flexibility and customer satisfaction

Improved Business Environment; Improved Business Opportunities through quality products and services

Increased User Value and Satisfaction through development of new products and services

(Weill Peter and Jeanne W. Ross, 2004)

Dehning and Richardson (2002) in their review and synthesis of quantitative empirical IT business value research, identified three different formulations of IT: IT spending, IT strategy (type of IT), and IT management/capability. Likewise, Bharadwaj (2000) derives IT infrastructure, human IT resources, and IT-enabled intangibles such as customer orientation and knowledge as principal IT-based resources. Based on a survey of top IT executives at 50 firms, Ross, Beath and Goodhue (1996) identified three IT assets underlying a firm’s IT capability: human, technology, and relationship. Weill (1992) identified four organization context variables that made up conversion effectiveness: top management commitment to the IT, organization experience with the IT, satisfaction with the IT, and the extent of political turbulence within the organization. Enterprise Resource Planning (ERP) systems are associated with higher financial market valuation, though short-term effectiveness is dampened after implementation (Hitt et al. 2002).

A growing number of studies use financial metrics and some also find positive impacts (Brynjolfsson et al. 2002). However, research also indicates that the former may not always lead to the latter since operational improvements gained from applying IT within the organization may not translate to financial measures of performance (Brynjolfsson and Hitt 1996). One implication is that a firm is not able to capture all the value it generates from IT. Even if a firm
is able to obtain financial performance improvements from its operational improvements, the question of competitive advantage via IT remains. Cooper et al. (2000) describe how a shift in corporate strategy at First American Bank drove information requirements, necessitating a new IT infrastructure based on a data warehouse.

These studies used measures such as labor productivity growth, expressed as the average annual percentage change in the value added per full time equivalent employee, to investigate productivity issues. Francalanci and Galal (1998) proposed that managerial choices regarding the mix of clerical, managerial, and professional employees mediate the relationship between IT and firm performance.

2.5 Theoretical Review

This study will adapt the Alinean IT hierarchy of needs to establish how DTMFIs conceptualize IT and in turn how their performance has been affected by this endeavor.

2.5.1 The Alinean IT Hierarchy of Needs

Regardless of overall random correlation between spending and returns, companies who invest wisely and manage these investments for maximum returns have indeed reaped the rewards that technology can deliver (Strassmann and Pisello 2003). As the IT basics become commoditized the competitive playing field moves to a higher plane, IT can be viewed as a hierarchy of needs much like Maslow’s hierarchy of needs model for human development. Competitive advantage has progressed from those who know how to implement the technology, to those who know how to apply technology to improve business processes, to those who know how to use it to share, manage and grow knowledge (Strassmann et. al. 2003).
By examining basic IT infrastructure, the marketplace of computers, printers and networks have become commodities with uniform products and little pricing power. Software products such as word processing e-mail and messaging could be considered commodities. Network servers, storage and printers have moved towards commoditization as well (Strassmann et. al. 2003). IT solutions are evolving from basic infrastructure, through business process optimization and information management. After examining this progression, a model emerged that likened the IT marketplace to Maslow’s hierarchy of needs (Strassmann et. al. 2003)

If organizations match their IT investments with Maslow’s hierarchy of needs, a new understanding can be developed proving that the basic levels of IT have been met and commoditized. This hierarchy helps to illustrate that as each successive capability is met, the competitive advantage progresses from those who know how to implement the technology, to those who know how to apply the technology to improve business processes, to those who know how to use it to share, manage, and grow knowledge (Strassmann et. al. 2003).

**Figure 2.1 The Alinean IT Hierarchy of Needs**

![Image of the Alinean IT Hierarchy of Needs]

The first level is concerned with computing infrastructure. The prior era of IT has been focused on fulfilling the basic lower end needs needed for computerization. Investments were implemented to deliver individual and corporate productivity, helping users get their work done more efficiently, and helping to reduce overhead. This included huge investments in data centers, networks, computers and applications.

The second level is concerned with the internet and enterprise software. In this level, focus moved to delivering productivity improvements beyond the corporation and to the entire value-chain as customers and the supply chain integrate into corporate computerization thus attaining business process optimization. As a result, although the need is not yet completely fulfilled, markets have begun to commoditize as it can be seen by the internet usage and consolidation of Enterprise Resource Planning (ERP) systems.

The third level is concerned with Knowledge Capital Management. The newest battleground focuses on the IT as the information itself and not the technology. IT innovation is focusing on information and information processing. IT investments are migrating from basic infrastructure, through transaction optimization, to being primarily focused on managing the rapidly exploding accumulation of scientific, research, customer, engineering, property and intellectual assets. Computers are the repositories of intelligence about customers, suppliers and products, the most valuable knowledge assets of any firm. Emerging solutions include data warehouses, enterprise portals, analytics and business intelligence – which are moving towards mainstream adoption, but clearly have not reached commoditization.
The forth level is concerned with Information Warfare. In this level, the focus moves still higher from reactive analysis of information, to proactive control of the information as a competitive weapon. The focus of information warfare will be the use of information distortion or denial, and the countermeasures to fight such attacks. Several expected components include situations where computer systems are attacked, where information is used to change the minds of friends, neutrals and foes, and blocking information or channeling to pursue economic dominance.

The IT hierarchy of needs can help companies understand how to categorize various investments and how to assess what is most important to decision making. As the hierarchy of needs clearly dictates, for the fundamental needs that have already been met, the markets have commoditized, and solutions with the lowest total cost of ownership win. As capability is met, investments naturally progress to the next level where innovation still reigns, value versus costs matters most, and competitive differentiation can be gained with the right projects and spending plans.

2.6 The Conceptual Framework

The project borrowed from a discussion of five generalized conceptualizations of Information and Communications Technology (Orlikowski and Iacono, 2001; Sawyer, 2004). The study relied on these ICT conceptualizations and their representations as a guide to understanding Information Technology conceptualization. The research further explored the fundamental link between IT conceptualizations and performance. The research further tested for the impact of this IT on key business drivers and shows how those drivers relate to business performance. This study adopted the following conceptual framework to explain the relationship between
conceptualization of information technology (IT) and performance in DTMFIs. The conceptual framework shows various components of the relationship between these variables.

**Figure 2.2: Conceptual Framework**

There is an absence of a unified theoretical framework has led to a fractured research stream with many simultaneous but non-overlapping conversations (Chan 2000). This study will linked IT conceptualization to performance while keeping in mind other external factors that affect performance. Organizations seek to develop a conceptual model that is not only based in theory, but rooted in one that is inherently suitable for analyzing the complexity of IT and firm performance.
CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This section presented the different methods that the researcher used to collect, analyze, present and discuss the findings of the study. This included details on the research strategy, the different categories of respondents and methodologies of data collection, analysis and presentation of data.

3.2 Research Design

The study adopted a descriptive survey approach in collecting data from the respondents. Descriptive survey research portrays an accurate profile of persons, events, or account of the characteristics, for example; behavior, opinions, abilities, beliefs, and knowledge of a particular individual, situation or group (Cooper and Schindler, 2008). The descriptive survey method is preferred because it ensures complete description of the situation, making sure that there was minimum bias in the collection of data (Kothari, 2008). A descriptive survey is concerned with finding out the what, where and how of a phenomenon. This design is considered suitable because it aided in collecting information from respondents on their conceptions, attitudes, awareness and opinions in relation to IT conceptualization in DTMFIs.

3.3 The Study Population

Target population refers to the entire group of individuals or objects from which the study seeks to generalize its findings (Cooper and Schindler, 2008). The target population of the study was all licensed Deposit taking microfinance institutions in Kenya. Currently there are 9 licensed Deposit Taking Microfinance institutions (CBK, 2013). All the DTMFIs have their
Headquarters in Nairobi and this was therefore the focus of the study. This is because all Senior Management Teams sit in Nairobi and this is the level at which IT selection and implementation decisions are made. It was possible to get a feel of the performance of the entire organization at the headquarters than at the branch level. The study population comprised 127 respondents who comprised of IT Managers, Operation Officers, Accounts Managers, Financial Officers and Credit Officers of the DTMFIs. This positions were selected keeping in mind the level of involvement, control, interaction and decision making the respondents have on their day to day operations.

Table 3.1: Study Population

<table>
<thead>
<tr>
<th>Population Category</th>
<th>Target Population</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT Managers</td>
<td>9</td>
<td>7.1</td>
</tr>
<tr>
<td>Operation officers</td>
<td>30</td>
<td>23.6</td>
</tr>
<tr>
<td>Accounts managers</td>
<td>21</td>
<td>16.5</td>
</tr>
<tr>
<td>Financial officers</td>
<td>25</td>
<td>19.7</td>
</tr>
<tr>
<td>Credit Officers</td>
<td>42</td>
<td>33.1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>127</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

3.4 Sample size and Sampling Technique

The study adopted census to sample all the DTMFIs and stratified random sampling to determine the size of the respondents who are at different level in management “strata.” Each stratum was then sampled as an independent sub-population, out of which individual elements were randomly selected. According to Bartlett, *et. Al* (2001) the size of the sample depends upon the precision the researcher desires in estimating the population parameter at a particular confidence level hence there is no single rule that can be used to determine sample size.
Mugenda and Mugenda (2003) indicated that a sample of 10%, 20% will be sufficient for a study. With an exception of the IT Managers, the study took a sample proportion of 50% to select a sample of 67 respondents who were Operation Officers, Accounts Managers, Financial Officers and Credit Officers of the DTMFI. This was because the study aimed to get responses from at least one employee in the cadres mentioned in each DTMFI.

Table 3.2: Sample Size

<table>
<thead>
<tr>
<th>Population Category</th>
<th>Target Population</th>
<th>Sample Proportion</th>
<th>Sample Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT Managers</td>
<td>9</td>
<td>100%</td>
<td>9</td>
</tr>
<tr>
<td>Operation Officers</td>
<td>30</td>
<td>50%</td>
<td>15</td>
</tr>
<tr>
<td>Accounts Managers</td>
<td>21</td>
<td>50%</td>
<td>10</td>
</tr>
<tr>
<td>Financial Officers</td>
<td>25</td>
<td>50%</td>
<td>12</td>
</tr>
<tr>
<td>Credit Officers</td>
<td>42</td>
<td>50%</td>
<td>21</td>
</tr>
<tr>
<td>Total</td>
<td>127</td>
<td>100%</td>
<td>67</td>
</tr>
</tbody>
</table>

3.5 Data Collection

The primary data for this study was collected using the questionnaires and it ensured that detailed and relevant information on the subject of study was collected. A questionnaires was used in collecting data and it consisted of a mixture of open ended and close ended questions. According to Babbie, (1998) this allows for intensity and richness of individual perceptions in respondent responses. Use of questionnaires was flexible and it facilitated the capture of in-depth knowledge of the respondents, promoted respondent cooperation and allowed the interviewer to probe further for clarification of issues. As a method of data collection, questionnaires were appropriate because they were easy to analyze, and were cost effective (Andersn, 2003).
The questionnaire which mainly contained closed and open ended questions was self-administered to the sample respondents. Section A of the questionnaire gathered information on the interviewee and the organization, Section B gathered information on how the organization conceptualize IT and Section C gathered information on how IT conceptualization has affected the performance of the DTMFIs. Each respondent received the same set of questions in exactly the same way. There was a letter requesting for information accompanying the questionnaire explaining the purpose of study to the respondents.

3.6 Data Analysis

Mugenda and Mugenda, (2003) described data analysis as a process of bringing order, structure and meaning to the multitude of collected data. Quantitative data which was collected using closed ended questions in the questionnaires was chronologically arranged with respect to the questionnaire outline to ensure that the correct codes were entered for the correct variable. From the questionnaire, data collected in Section A helped in analyzing the respondent and the organization, data collected in Section B helped in analyzing how the DTMFIs conceptualize IT and data collected in Section C helped in analyzing various ways in which performance of DTMFIs has been affected by IT conceptualization. Data cleaning was then done and tabulated. The tabulated data was analyzed with the help of the Statistical Package for Social Sciences (SPSS 11.0) that has data handling and statistical analysis capability that can analyze data statistics and generate descriptive statistics as stated by Norusis, (2007). The data was then analyzed using descriptive characteristics which included; frequency, percentages, means and standard deviations in order to establish patterns, trends and relationships and to make it easier to understand and interpret the implications of the study. The presentation of data was done in
A linear regression model was applied to explain the relationship between conceptualization of information technology (IT) and performance in Deposit Taking Microfinance Institutions. The model treated IT conceptualization for the DTMFIs as independent variable while the dependent variables are the performance measures. The study also looked at financial regulations and interest rates as other external factors that may affect performance of DTMFIs. The response on IT conceptualization for the organization was measured by computing indices based on the responses derived from the Likert-Scaled questions. The equation below presents the algebraic expression of the analytical model applied.

\[ Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e \]

Where by:

- \( Y \) = Performance
- \( \alpha \) = Constant
- \( \beta \) = Coefficient of the factors
- \( X_1 \) = Tool view
- \( X_2 \) = Ensemble View
- \( X_3 \) = Computation View
- \( X_4 \) = Proxy View
- \( e \) = Error term
CHAPTER FOUR: DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

This chapter presents analysis and findings of the research. From the study population target of 67 respondents, 62 respondents responded and returned the questionnaire, constituting 92% response rate.

4.2 Institution

The study targeted respondents from the banking institutions. The respondents were from The nine (9) DTMFIs including KWFT, Rafiki, ReMU and Faulu among others.

Table 4.1: Respondents

<table>
<thead>
<tr>
<th>Job Designations</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT Managers</td>
<td>9</td>
<td>14.5</td>
</tr>
<tr>
<td>Operations Officers</td>
<td>13</td>
<td>21.0</td>
</tr>
<tr>
<td>Account Managers</td>
<td>9</td>
<td>14.5</td>
</tr>
<tr>
<td>Financial Officers</td>
<td>12</td>
<td>19.0</td>
</tr>
<tr>
<td>Credit Officers</td>
<td>19</td>
<td>31.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>62</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

The respondents were requested to indicate their current designation within the deposit taking microfinance institutions. From the findings, 14% of the respondents indicated that they were IT managers, 21% indicated that they were operations officers, 14% indicated that they were account managers, 19% indicated that they were financial officers and 31% indicated that they were credit officers. This clearly indicated that the information on IT conceptualization in
deposit taking microfinance was collected from the relevant parties making the data valid and reliable.

**4.2.1 Level of Education**

**Table 4.2: Highest academic qualifications**

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>University</td>
<td>27</td>
<td>44</td>
</tr>
<tr>
<td>College</td>
<td>35</td>
<td>56</td>
</tr>
<tr>
<td>Total</td>
<td>62</td>
<td>100</td>
</tr>
</tbody>
</table>

The study sought to investigate the highest academic qualifications attained by the respondents. From the findings, majority 56% of the respondents indicated that they had attended college as the highest level of education while 44% indicated that they had degree as their highest level of education. This implied that a high number of officers in the Deposit taking MFIs were educated and were in a position of offering information in influence of IT conceptualization on financial performance of the Deposit Taking MFIs.

**Table 4.3: Period the Deposit taking MFIs has been in operation**

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – 5 years</td>
<td>11</td>
<td>18.0</td>
</tr>
<tr>
<td>6 – 10 years</td>
<td>31</td>
<td>50.0</td>
</tr>
<tr>
<td>11 – 15 years</td>
<td>20</td>
<td>32.0</td>
</tr>
<tr>
<td>Total</td>
<td>62</td>
<td>100</td>
</tr>
</tbody>
</table>

The study sought the period in years in which the Deposit Taking microfinance had been in operation. From the findings, most 50% of the respondents indicated that the Deposit Taking MFIs had been in operation for 6-10 years, 32% of the respondents indicated that the Deposit taking MFIs had been in operation for 11-15 years while 18% of the respondents indicated the
Deposit taking MFIs had been in operation for 1 to 5 years. This clearly indicated that most Deposit Taking MFIs had been in operation for more than six years even before receiving official DTMFI licenses from CBK.

**Table 4.4: Deposit taking MFIs IT Conceptualization**

<table>
<thead>
<tr>
<th>General conceptualization of IT by Deposit taking MFIs</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>A tool whose intended purpose is to generate value</td>
<td>52</td>
<td>89</td>
</tr>
<tr>
<td>A useful venture with an impact on monetary resources</td>
<td>50</td>
<td>81</td>
</tr>
<tr>
<td>A venture that affects organizational co-innovations such as workplace practices and how people relate with technology</td>
<td>39</td>
<td>64</td>
</tr>
<tr>
<td>Rules used to build or enhance systems and the use of data modeling or simulation to identify processes and structures of systems</td>
<td>40</td>
<td>66</td>
</tr>
<tr>
<td>Technology is absent and cannot be described, conceptualized or theorized</td>
<td>4</td>
<td>7</td>
</tr>
</tbody>
</table>

The respondents were requested to indicate the how the Deposit taking MFIs conceptualize IT. From the findings, 89% of the respondents indicated that Deposit taking MFIs conceptualized IT as a tool whose intended purpose is to generate value while 81% indicated that general conceptualization of IT by DTMFIs as a useful venture with an impact on monetary resources. The study found that 66% DTMFIs conceptualize IT as a rules used to build or enhance systems and the use of data modeling or simulation to identify processes and structures of systems while 64% of the respondents indicated that DTMFIs conceptualized IT as a venture that affects organizational co-innovations such as workplace practices and how people relate with technology. The study also found that 7% indicated that DTMFIs conceptualized IT as technology which was absent and could not be described, conceptualized or theorized. This
clearly indicated that DTMFIs conceptualized IT as a tool whose intended purpose is to generate value and a useful venture with an impact on monetary resources in the organizations.

4.3 IT Conceptualization on day to day operations

Table 4.5: IT Conceptualization on day to day operations

<table>
<thead>
<tr>
<th>Decision for IT Conceptualize</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly agree</th>
<th>Mean</th>
<th>Std Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT enables organizations to meet objectives cheaply and effectively</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>12</td>
<td>48</td>
<td>4.6</td>
<td>0.41</td>
</tr>
<tr>
<td>IT alters and enhances the ways organization and employees process information</td>
<td>0</td>
<td>0</td>
<td>10</td>
<td>42</td>
<td>9</td>
<td>4.4</td>
<td>0.39</td>
</tr>
<tr>
<td>IT is represented by user perception of technology the adopted</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>33</td>
<td>12</td>
<td>3.9</td>
<td>0.94</td>
</tr>
<tr>
<td>IT is a set of rules and producers to enhance service delivery</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>21</td>
<td>37</td>
<td>4.5</td>
<td>0.46</td>
</tr>
</tbody>
</table>

Source: Researcher 2013

From the findings, majority of the respondents strongly agreed that IT was conceptualized as enabling DFMFIs to meets objectives cheaply and effectively as indicated by a mean of 4.6 and as a set of rules and procedures that enhances services delivery as indicated by a mean of 4.5. The study further found out that majority of the respondents conceptualize IT as a means that alters and enhances the ways organization and staff process information as indicated by a mean of 4.4 while others agreed that IT was represented by user perception on adoption of technology as given by a mean of 3.9. This clearly indicated that IT was conceptualized as enabling DFMFIs to meets objectives cheaply and effectively, enhances services delivery and as a mean that alters and enhances the ways organization and employees process information.
Table 4. 6: Impacts of Information Technology in Deposit Taking Microfinance Institution

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly agree</th>
<th>Mean</th>
<th>Std Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competition is a factor in the decision to invest in Information technology</td>
<td>0</td>
<td>2</td>
<td>15</td>
<td>34</td>
<td>11</td>
<td>3.4</td>
<td>.82</td>
</tr>
<tr>
<td>Social factors are important in the decision to invest in Information technology</td>
<td>0</td>
<td>14</td>
<td>21</td>
<td>27</td>
<td>22</td>
<td>3.2</td>
<td>.78</td>
</tr>
<tr>
<td>Interaction with firms that are already using Information Technology influences the decision to invest</td>
<td>0</td>
<td>0</td>
<td>30</td>
<td>28</td>
<td>14</td>
<td>4.7</td>
<td>.78</td>
</tr>
<tr>
<td>The industry pressure is critical in the decision to invest in information technology</td>
<td>0</td>
<td>0</td>
<td>14</td>
<td>37</td>
<td>71</td>
<td>4.4</td>
<td>.64</td>
</tr>
<tr>
<td>The decision to invest in IT is influenced by the compatibility of the technology with organizational culture/values</td>
<td>0</td>
<td>0</td>
<td>14</td>
<td>58</td>
<td>50</td>
<td>3.9</td>
<td>.66</td>
</tr>
<tr>
<td>The ease of learning how to implement, operate and maintain IT influences the decision to invest</td>
<td>0</td>
<td>0</td>
<td>14</td>
<td>86</td>
<td>22</td>
<td>4.1</td>
<td>.54</td>
</tr>
<tr>
<td>The decision to invest is influenced by the perceived usefulness of IT to accomplish tasks more quickly</td>
<td>0</td>
<td>0</td>
<td>15</td>
<td>84</td>
<td>23</td>
<td>4.3</td>
<td>.55</td>
</tr>
<tr>
<td>The perceived usefulness of IT in improving job performance of employees influences the decision to invest</td>
<td>0</td>
<td>0</td>
<td>21</td>
<td>76</td>
<td>25</td>
<td>4.6</td>
<td>.62</td>
</tr>
<tr>
<td>The perceived usefulness of IT in improving overall productivity in the organization influences the decision to invest</td>
<td>0</td>
<td>3</td>
<td>4</td>
<td>35</td>
<td>20</td>
<td>4.2</td>
<td>.52</td>
</tr>
<tr>
<td>The perceived usefulness of IT in enhancing overall effectiveness of the organization influences the decision to invest</td>
<td>0</td>
<td>4</td>
<td>5</td>
<td>46</td>
<td>7</td>
<td>4.8</td>
<td>.48</td>
</tr>
</tbody>
</table>

Source: Researcher 2013

In the table 4.2, various determinants, view and impact on IT conceptualization were given to the respondents so that they could indicated what are the determinants views on IT conceptualization and the impact of IT in the organizations. The respondents strongly agreed that the perceived usefulness of IT in enhancing overall effectiveness of the organization, interaction with firms that are already using IT and the perceived usefulness of IT in improving
job performance of employees influences the decision to invest as indicated by a mean of 4.8, 4.7 and 4.6 respectively. The respondents agreed that the industry pressure is critical in the decision to invest in information technology, that the decision to invest is influenced by the perceived usefulness of IT to accomplish tasks more quickly, perceived usefulness of IT in improving overall productivity in the organization influences the decision to invest ease of learning how to implement, operate and maintain IT also influences the decision to invest and that the decision to invest in IT is influenced by the compatibility of the technology with organizational culture/values as indicated by a mean of 4.4, 4.3, 4.2, 4.1 and 3.9 respectively.

The study found that respondents moderately agreed that Competition is a factor in the decision to invest in Information technology and those social factors are important in the decision to invest in Information technology as indicated by a mean of 3.4 and 3.2 respectively.

**Table 4.7: IT Conceptualization on staff duties**

<table>
<thead>
<tr>
<th>IT Conceptualization</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Mean</th>
<th>Std Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT is a tool for substituting workers</td>
<td>20</td>
<td>38</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>1.90</td>
<td>0.59</td>
</tr>
<tr>
<td>IT enhances the capabilities of workers</td>
<td>0</td>
<td>0</td>
<td>11</td>
<td>40</td>
<td>12</td>
<td>4.10</td>
<td>0.55</td>
</tr>
<tr>
<td>IT is a tool that provides more variety in communications choices</td>
<td>0</td>
<td>0</td>
<td>15</td>
<td>86</td>
<td>21</td>
<td>4.04</td>
<td>0.54</td>
</tr>
<tr>
<td>The performance capabilities achievable by IT are defined by the technical features</td>
<td>0</td>
<td>24</td>
<td>31</td>
<td>4</td>
<td>3</td>
<td>3.13</td>
<td>0.65</td>
</tr>
</tbody>
</table>

**Source: Researcher 2013**

The questionnaire requested the respondents to indicate the extent to which extent IT Conceptualization in affected their duties. From the findings, majority of the respondents agreed
that IT enhances the capabilities of workers and that IT was a tool that provides more variety in communications choices in DTMFIs as indicated by a mean of 4.10 and 4.04. The respondent moderately agreed that the performance capabilities achievable by IT are defined by the technical features as indicated by a mean of 3.13 while they disagreed that IT was a tool for substituting workers in DTMFIs. From the findings, majority of the respondents with a mean of 4.0 agreed that IT is a mean that provides more variety in communication choices.

**4.4 Impact of IT in Business Performance**

Table 4.8: Impact of IT in Business Performance

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Mean</th>
<th>Std Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT Implementation leads to cost savings per transaction within</td>
<td>0</td>
<td>0</td>
<td>20</td>
<td>90</td>
<td>12</td>
<td>3.9</td>
<td>0.51</td>
</tr>
<tr>
<td>the business</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IT Implementation leads to the reduction of costs as a result</td>
<td>0</td>
<td>0</td>
<td>10</td>
<td>83</td>
<td>29</td>
<td>4.2</td>
<td>0.55</td>
</tr>
<tr>
<td>of integration of the diverse distributed databases</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IT Implementation results in an increase in the number of</td>
<td>0</td>
<td>10</td>
<td>22</td>
<td>74</td>
<td>16</td>
<td>3.8</td>
<td>0.77</td>
</tr>
<tr>
<td>online supported services to customers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IT Implementation results in a general increase in online</td>
<td>0</td>
<td>0</td>
<td>12</td>
<td>82</td>
<td>30</td>
<td>4.1</td>
<td>0.57</td>
</tr>
<tr>
<td>transactions ensuring resource utilization</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IT Implementation results in reduced administrative burden</td>
<td>0</td>
<td>0</td>
<td>8</td>
<td>92</td>
<td>22</td>
<td>4.1</td>
<td>0.48</td>
</tr>
<tr>
<td>for businesses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IT Implementation leads to improved communication between</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>87</td>
<td>28</td>
<td>4.2</td>
<td>0.51</td>
</tr>
<tr>
<td>various administrative units resulting in reduced</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>inter-connectedness costs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Source: Researcher 2013*

From the table 4.4, the study sought to find out if IT implementation has any impact in the organization. From the findings. Majority of the respondents agreed that IT implementation leads to cost saving in business transactions as indicated by a mean of 3.9 and a standard
deviation of 0.51. The study further found that due to IT implementation, organization database is integrated in a diverse distribution network leading to reduction in costs as indicated by a mean of 4.2 with a standard deviation of 0.55.

The study also found out that IT implementation makes the organizations have an increase online transaction that ensure resources utilization as majority of respondents agreed with a mean of 3.8. Majority of the respondents agreed that IT implementation leads to reduction of administrative burden for businesses with a mean of 4.1. The study further found out IT implementation leads to improvement in communication in administrative units and reduce interconnectedness costs with a mean of 4.2 and standard deviation of 0.51.

This implies the IT implementation has great impact in the organization as it is found to reduce cost per business transaction, increase market transaction online and reduction in administration costs as well as improve communication in the organizations.

**IT Conceptualization and financial Performance**

The respondents were requested to indicate the number of branches their respective DTMFIs had. From the findings, 49% of the respondents indicated that their DTMFIs had 15-25 branches, 27% indicated that the DTMFIs had 10-15 branches while 18% of the respondents indicated that the DTMFIs had 5-9 branches while 6% indicated that they had more than 25 branches countrywide. This clearly indicated that the DTMFIs had increased networking to achieve high market share.

**Approximate Account Holders**

The respondents were requested to indicate the approximate members or account holders in DTMFIs. From the findings, 45% of the respondents indicated that their respective DTMFIs had
between 250 000 members to 500000 account holders, 32% indicated that their respective DTMFIs had between 200,000 to 250,000 account holders, 14 indicated that they had less than 200,000 account holders while 9% indicated that their respective DTMFIs had more than 500,000 account holders. This implied that DTMFIs had increasingly improved on acquiring financial share market as most DTMFIs has more than 250,000 account holders.

**Figure 4.1: Microfinance experienced the impact of the information technology on Performance**

![Impact of IT Conceptualization on performance](image)

The respondents were requested to indicate the whether DTMFIs had experienced effects on performance due to IT conceptualization. From the findings, 85% of the respondents indicated that the DTMFI had experienced an effects of performance due to IT conceptualization while 15% felt otherwise. The respondents explained that the DTMFIs had improved service delivery, efficient in delivery of financial services, increased customer services, attracted more customers and increased their base. These are all positive effects of IT conceptualization on performance.

**Profit/surplus**

The study sought how much profit/surplus for years 2012 and 2011. From the findings, majority 53% of the finding indicated that in the years 2012 and 2011 the DTMFIs had 15% to 20% profits margin while 31% indicated that the DTMFIs had profit margin of 12 to 14% in the
years 2012 and yea 2011. The study further found that 12% of the respondents indicated that the DTMFIs had 10% to 11% while 3% of the respondents indicated that the DTMFIs had profit of 6% -10%s.

**Figure 4. 2: Attribute financial Performance DTMFIs IT conceptualization**

The study requested the respondents to indicate whether financial performance at DTMFIs could be attributed to IT conceptualization. From the findings, 92% indicated that IT conceptualization had improved DTMFIs financial performance through increase business transactions, increased customer base and efficiency in financial service delivery. 8% of the respondents indicated that financial performance in DTMFIs could not be attributed to IT conceptualization.

**Table 4. 9: Effects of external factors on organization performance**

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest rate</td>
<td>56</td>
<td>90</td>
</tr>
<tr>
<td>Financial regulations</td>
<td>59</td>
<td>95</td>
</tr>
</tbody>
</table>
The study sought whether external factors such as interest rates and financial regulations affected the performance of DTMFIs. From the findings, majority of the respondents indicated that external factors affected DTMFIs financial performance. Most respondents attributed external factors to affect their interest rates hence profits from interest and financial regulations which require the DTMFIs to maintain given ratios of operation especially from CBK.

**Table 4.10: External factors affecting the DTMFIs performance**

<table>
<thead>
<tr>
<th>Factors</th>
<th>Mean</th>
<th>Std Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest rates</td>
<td>4.61</td>
<td>0.75</td>
</tr>
<tr>
<td>Financial regulations</td>
<td>4.53</td>
<td>0.67</td>
</tr>
</tbody>
</table>

The study sought the extent to which the external factors affected the DTMFIs performance. From the findings, majority of the respondents indicated that interest rates and financial regulations greatly affected the performance of the DTMFIs to a very great extent as indicated by a mean of 4.61 and 4.53 respectively. This implied that interest rates and financial regulations greatly affect performance of Deposit taking MFIs.

**4.4.1 Model Summary of Regression analysis**

**Table 4.11 Model Summary**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Change Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>.087(a)</td>
<td>.728</td>
<td>.788</td>
<td>0.34</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.762</td>
<td>6</td>
<td>.214</td>
<td>8.101</td>
<td>.001(a)</td>
</tr>
</tbody>
</table>

a Predictors: (Constant) Tool View, Ensemble View, Computational View, Proxy View

Dependent: Performance
R is the square root of R-Squared and is the correlation between the observed and predicted values of dependent variable implying that the association of 0.087 between IT conceptualization affecting performance that include Tool View, Ensemble View, Computational View, Proxy View.

R-Squared is the proportion of the variance in the dependent variable performance that was explained by variations in the independent variables Tool View, Ensemble View, Computational View, and Proxy View. This implied that there was a 72.8% of variance or correlation between variables in general.

Adjusted $R^2$ is the coefficient of determination which indicates how the performance varies with variation in IT conceptualization Tool View, Ensemble View, Computational View, Proxy View. From table above, the value of adjusted $R^2$ is 0.788. This implies that, there was a variation of 78.8% of performance with variation in IT conceptualization influence on performance which was statistically significant with P-Value of 0.01 which was less than 0.05 at a confidence level of 95%.

### 4.4.2 ANOVA (b)

**Table 4.12: ANOVA (b)**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>4.104</td>
<td>15</td>
<td>.227</td>
<td>5.231</td>
<td>0.01(a)</td>
</tr>
<tr>
<td>Residual</td>
<td>1.762</td>
<td>47</td>
<td>.021</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>6.466</td>
<td>62</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a Predictors: (Constant) Tool View, Ensemble View, Computational View, Proxy View

Dependent: Performance

The total variance was the difference into the variance which could be explained by the
independent variables (Model) and the variance which was not explained by the independent variables (Error). The strength of variation of the predictor values IT conceptualization influence the performance dependence variable at 0.01 significant levels. Therefore the hypothesis that all independent variables in the model have no effect on the performance of DTMFIs is rejected.

4.4.3 Regression Coefficients (a)

Table 4.13: Coefficients (a)

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>7.000</td>
<td>.535</td>
<td>4.601</td>
</tr>
<tr>
<td></td>
<td>Tool View</td>
<td>0.732</td>
<td>.455</td>
<td>.787</td>
</tr>
<tr>
<td></td>
<td>Ensemble View</td>
<td>0.944</td>
<td>.626</td>
<td>.972</td>
</tr>
<tr>
<td></td>
<td>Computational View</td>
<td>0.678</td>
<td>.248</td>
<td>.619</td>
</tr>
<tr>
<td></td>
<td>Proxy View</td>
<td>0.771</td>
<td>.710</td>
<td>.692</td>
</tr>
</tbody>
</table>

a Predictors: (Constant) Tool View, Ensemble View, Computational View, Proxy View

Dependent: Performance

\[ Y = 7.000 + 0.732X_1 + 0.944X_2 + 0.678X_3 + 0.771X_4 \]

Where \( X_1 = \) Tool View, \( X_2 = \) Ensemble View, \( X_3 = \) Computational View, \( X_4 = \) Proxy View

The column of coefficient shows the predictor variables of constant, tool view, ensemble view, computational view, proxy view. The first variable constant of 7.000 represented the constant which predicted value of performance when all other variables influencing performance were constant at zero (0). From these findings, DTMFIs that conceptualize IT using the tool view for obtaining IT objectives increase their chances of performing better by 73% (\( t=3.191 \)). DTMFI that conceptualize IT using the ensemble view for obtaining IT objectives increase their chances
of performing better by 94% (t=3.383). DTMFI that conceptualize IT using the computational view for obtaining IT objectives increase their chances of performing better by 67% (t=2.606). Finally, DTMFI that conceptualize IT using the proxy view for obtaining IT objectives increase their chances of performing better by 77% (t=2.272).
5.1 Introduction

This chapter summarizes the findings of the study that relates to the research questions set out at the beginning of the study. The chapter also presents conclusions and recommendations of the study.

5.2 Summary of the findings

The study revealed that DTMFIs seek to offer products and services effectively and in most cases management of the DTMFIs decide to invest in IT to be able to enhance overall effectiveness of the businesses. Social factors are important in the decision to invest in Information technology. This enhanced by the fact that DTMFIs interact with firms that are already using IT. This makes the organizations to transact business activities better and offer quality services. IT is also conceptualized as a tool to improve interaction with other customers and firms that have implemented the IT services.

The study also found that DTMFIs continue existing and offering their products in the market if they are in a position to withstand the forces of competition. IT makes the firms to produce quality services and become competitive in the market. Ease of learning was also noted as factor that influences firms to make decision on investing in IT. The study found out that the ease of learning how to implement, operate and maintain IT influences the decision to invest. Decisions to invest in IT were found to be influenced by the compatibility of the technology with organizational culture/values. DTMFIs invest in IT when the technologies will make the firm improve its values and maintain its objectives.
The study revealed that adoption of IT in DTMFIs led to improved performance and quality service delivery and DTMFIs do not invest in IT to eliminate staff from their positions but to enhance the capabilities of workers which in turn leads to improved staff performance. IT also improves and provides variety of communication choices and makes DTMFIs improve their performance. The features and capabilities that IT offers to the organization also influences decision to invest in IT or not and DTMFIs performance capabilities are achievable depending on the technical features IT adopted. Most DTMFIs conceptualize IT technical features as a determinant that influences performance and tends to adopt IT depending with the services it offer.

The study revealed that IT plays an important role in DTMFIs for instance ease to use of IT influence IT conceptualization in the organization. The intention for which the DTMFIs wish to adopt IT also influences the kind of IT structures to be adopted. DTMFIs focus on IT by evaluating its productivity capability as it aims to offer quality services and further serve a large market. DTMFIs also consider their financial capabilities when making decision to invest in IT.

The study established that IT implementation leads to cost saving in business transactions, enables DTMFIs to integrate databases in diverse distribution networks leading to reduction in costs. DTMFIs have also been able to increase the speed at which they offer its services by introducing online and mobile banking services. Implementation of IT improves administration management, communication and inter connectivity in the organization. This implies IT has great impact in DTMFIs as it is found to reduce cost per business transaction, increase market share and reduce administration costs as well as improve communication in the organizations. IT is adopted by organizations to reduce cost of operations. Due to reduction in costs of
operations, DTMFIs are able to concentrate on their core business offering better financial and lending services and serve customers to their satisfaction. This clearly indicates that IT enables organizations offer quality services effectively and efficiently meeting customer expectations. Effective use of IT also makes the organizations to flexible. Upon implementing various IT structures, DTMFIs are able to acquire trained personnel cheaply and offer quality services at a lower costs. This eventually makes DTMFIs gain more customers and in the long term command a large market.

Organizations focus on various strategies when making decisions on IT investment. Most DTMFIs make decisions to invest in IT so that they can be able to differentiate their products and services. Majority of the respondents agreed that DTMFIs make decisions on IT to be in a position of differentiating products from competitors as hence DTMFIs make use of IT to gain a competitive advantage. DTMFIs also make decisions to invest in IT to be able to offer specialized products and services such as online and mobile banking.

The study established that DTMFIs also focus on developing new products and improving quality of existing products or services. This implies that DTMFIs invest in IT to develop new products or improve the quality of the existing products or services to able them to satisfy their customer needs in terms of offering better financial and lending services.

The study revealed that most DTMFIs conceptualize IT as an engineered tool whose intended purpose is to generate values such as improved social presence, efficient customer service, enhanced productivity and better processing of information.
5.3 Conclusions

The study concludes that DTMFIs conceptualize IT as means to create impact in performance. DTMFIs make decisions to conceptualize IT due to industrial pressure in offering quality products, enhancement of effectiveness of the firms and improvement of competitiveness in the market.

The study also concludes that IT conceptualization leads to improvement of firm performance by increasing firm staff capabilities, improving communications and reducing administration and operational costs. The study also concludes that DTMFIs make decisions to invest in IT depending on financial capabilities as well as IT technical features. Organizational culture and value also influence DTMFIs decision making in investing in IT.

The study further concludes that implementation of IT makes DTMFIs save resources, reduce costs per transaction and satisfy their customer’s needs better. The study also concludes that implementing IT makes the DTMFIs become more flexible in its operations as provide better quality financial and lending services and expand market shares.

Finally, the study concludes that DTMFIs make decisions to invest in IT so that they can differentiate their product, develop new products in the market and improve quality of existing products.

5.4 Recommendations

The study recommends that organizations should conceptualize IT as a means to enhance staff capabilities, provide choice of communication and to provide quality products and services.
This would make the organizations evaluate IT productivity capabilities and its impact in improving firms’ performance.

The study also recommends that when organizations wish to invest in IT, they should consider factors such as availability of resources at their disposal, social factors and effectiveness of IT in production and service delivery. Competition from other firms and compatibility of IT to the cultures or values to improve its performance are also factors that should be considered.

Finally firms should focus on business strategies such as product differentiating, production costs reduction and improving flexibility as this will enable firms perform well in improving service delivery to customers, improve profitability and eventually increases its revenues.

5.5 Limitations

This study focused on licenses DTMFIs that are licensed by CBK, however, there are thousands of small microfinance institutions in Kenya including small village banks and Savings and Credit Co-operative Societies (SACCOs).

5.6 Recommendations for further study

This study determined the effect of IT conceptualization in DTMFIs. The study recommends that a further study should be carried out to investigate factors hindering adoption of IT in other Depot Taking Institutions including small village banks and SACCOs in Kenya.
REFERENCES


Bushell S., 2002, *Lean and Hungry Times*, CIO-The magazine for Information Executives


Ross, J.W., Beath, C., and Goodhue, D.L. "Develop Long-term Competitiveness


APPENDICES

Appendix I : The Introduction Letter

To

RE: PERMISSION TO COLLECT DATA

I am a student at the School of Education, University of Nairobi. I am currently undertaking my research project entitled, “INFORMATION TECHNOLOGY CONCEPTUALIZATION AND PERFORMANCE IN DEPOSIT TAKING MICROFINANCE INSTITUTIONS IN KENYA”. I have attached a questionnaire for gathering the data which will be very useful in this research.

Your institution has been selected to participate in the study. I request you to answer the questionnaire hence facilitating the collection of the crucial and credible data. Please note that the information sought is purely for academic purpose and will be treated with utmost confidentiality.

I look forward to your co-operation.

Yours faithfully

Mwania Joseph Nzuki

Student - University Of Nairobi
Appendix: Research Questionnaire

Please answer all the questions as best as you can.

SECTION A: BACKGROUND INFORMATION

1. What is your current designation within the Microfinance?
   - IT Manager ( )
   - Credit Manager ( )
   - Operations Manager ( )
   - Branch Manager ( )
   Others (please specify……………)

2. What is your highest level of education?
   - Secondary [ ]
   - College [ ]
   - University [ ]
   Others [ ]

3. How many years have you been in the Microfinance you work in?
   - 1 – 5 years ( )
   - 6 – 10 years ( )
   - 11 – 15 years ( )
   - 16 – 20 years ( )
   - 21 years and above ( )

SECTION B: INFORMATION TECHNOLOGY CONCEPTUALIZATION

4. How does your organization in general conceptualize IT? Please tick the most appropriate.

<table>
<thead>
<tr>
<th>Option</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>A tool whose intended purpose is to generate value</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A useful venture with an impact on monetary resources</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A venture that affects organizational co-innovations such as workplace practices and how people relate with technology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rules used to build or enhance systems and the use of data modeling or simulation to identify processes and structures of systems</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technology is absent and cannot be described, conceptualized or theorized</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
5. To what extent do you agree with the following statement concerning decision makers in your firm to conceptualize Information Technology? (1=Strongly Disagree and 5= Strongly agree)

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Agree</th>
<th>Neutral</th>
<th>disagree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information Technology is a tool that enables organizations to meet their objectives more cheaply and efficiently</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information Technology alters and enhances the way that organizations and their employees process information</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information Technology is largely represented by measures of users' perceptions of the technologies that have been adopted</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information Technology is basically a set of rules and procedures that is used by organizations to build new or enhanced services that enhance their service delivery</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6. To what extent do you agree with the following statement concerning the impacts of Information Technology in your Deposit Taking Microfinance Institution? (1=Strongly agree and 5= Strongly disagree)

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competition is a factor in the decision to invest in Information technology</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social factors are important in the decision to invest in Information technology</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interaction with DTMF that are already using Information Technology influences the decision to invest</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The industry pressure is critical in the decision to invest in information technology</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The decision to invest in IT is influenced by the compatibility of the technology with organizational culture/values</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The decision to invest is influenced by the perceived usefulness of IT to accomplish tasks more quickly</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The perceived usefulness of IT in improving job performance of employees influences the decision to invest</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The perceived usefulness of IT in improving overall productivity in the DTMF influences the decision to invest</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The perceived usefulness of IT in enhancing overall effectiveness of the DTMF influences the decision to invest</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7. Please indicate to what extent you agree or disagree with each of the following statements on IT conceptualization in your organization (1=Strongly agree and 5= Strongly disagree)

| IT is a tool for substituting workers |
| IT enhances the capabilities of workers |
| IT is a tool that provides more variety in communications choices |
| The performance capabilities achievable by IT are defined by the technical features |
SECTION C: PERFORMANCE IN DTMFIs

8. How many branches does your organization have? ………………..

9. Approximately many members/account holders does your organization have?
……………………………………

10. Has your Microfinance experienced the impact of the information technology in your performance?
    Yes [    ]

    No [    ]

    If yes please state an example……………………………………………………………………

        …………………………………………………………………………………………..………

11. Please state your profit/surplus for years
    2012 ……………..
    2011 ……………..

12. How many customers/account holders did your organization have for the following years?
    2012 ……………..
    2011 ……………..

13. Would you attribute financial performance to your organizations IT conceptualization?
    [    ] Yes [    ] No

14. Has your organizations performance been affected by the following external factors?
    Interest rates [    ] Yes [    ] No

    Financial regulations [    ] Yes [    ] No
If yes to any, please state to what extent

(Use a scale of a-5 where 1= Very great extent and 5= Very low extent)

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest rates</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial regulations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Please mention any other external factors that affect your DTMFI's performance………………

..................................................................................................................................................
Appendix III: Licensed Deposit Taking Microfinance Institutions

1. Faulu Kenya DTM Limited
   Postal Address: P. O. Box 60240 – 00200, Nairobi
   Telephone: +254-20- 3877290 -3/7, 38721883/4
   Fax: +254-20-3867504, 3874875
   Email: info@faulukenya.com, customercare@faulukenya.com
   Website: www.faulukenya.com
   Physical Address: Faulu Kenya House, Ngong Lane -Off Ngong Road
   Date Licensed: 21st May 2009
   Branches: 27

2. Kenya Women Finance Trust DTM Limited
   Postal Address: P. O. Box 4179-00506, Nairobi
   Telephone: +254-20- 2470272-5, 2715334/5, 2755340/42
   Pilot Line: 070 - 3067000
   Email: info@kwftdtm.com
   Website: www.kwftdtm.com
   Physical Address: Akira House, Kiambere Road, Upper Hill,
   Date Licensed: 31st March 2010
   Branches: 24

3. SMEP Deposit Taking Microfinance Limited
   Postal Address: P. O. Box 64063-00620 Nairobi
   Telephone: 020-3572799 / 26733127 / 3870162 / 3861972 / 2055761
   Fax: +254-20-3870191
   Email: info@smepr.co.ke  info@smepr.co.ke  info@smepr.co.ke
   Website: www.smepr.co.ke
   Physical Address: SMEP Building - Kirichwa Road, Off Argwings Kodhek Road
   Date Licensed: 14th December 2010
   Branches: 6
4. Remu DTM Limited
Postal Address: P. O. Box 20833-00100 Nairobi
Telephone: 2214483/2215384/ 2215387/8/9, 0733-554555
Email: info@remltd.co.ke info@remltd.co.ke info@remltd.co.ke
Physical Address: Finance House, 14th Floor, Loita Street
**Date Licensed:** 31st December 2010
Branches: 3

5. Rafiki Deposit Taking Microfinance
Postal Address: 12755-00400 Nairobi
Telephone: 020-216 6401
Cell - phone: 0719 804 370/0734 000 323
Email: info@rafiki.co.ke
Website: www.rafiki.co.ke
Physical Address: 2nd Floor, El-roi Plaza, Tom Mboya Street
**Date Licensed:** 14th June 2011
Branches: 3

6. UWEZO Deposit Taking Microfinance Limited
Postal Address: 1654-00100 Nairobi
Telephone: 2212917 / 9
Email: info@uwezodtm.com
Website: www.uwezodtm.com
Physical Address: Park Plaza Building, Ground Floor, Moktar Daddah Street
**Date Licensed:** 08 November 2010
Branches: 2

7. Century Deposit Taking Microfinance Limited
Postal Address: P. O. Box 38319 – 00623, Nairobi
Telephone: +254-20- 2664282, 20 6768326, 0722 168721, 0733 155652
Email: info@century.co.ke
Physical Address: KK Plaza 1st Floor, New Pumwani Road, Gikomba
Date Licensed: 17th September 2012
Branches: 1

8. SUMAC DTM Limited
Postal Address: P. O. Box 11687-00100, Nairobi
Telephone: (254) 20 2212587, 20 2210440
Fax: (254) 2210430
Email: info@sumacdtm.co.ke
Website: www.sumacdtm.co.ke
Physical Address: Consolidated Bank House 2nd Floor, Koinange Street
Date Licensed: 29th October 2012
Branches: 1

9. U&I Deposit Taking Microfinance Limited
Postal Address: P.O. Box 15825 – 00100, Nairobi
Telephone: (254) 020 2367288, Mobile: 0713 112 791
Fax: (254) 2210430
Email: info@uni-microfinance.co.ke
Website: http://uni-microfinance.co.ke/uni-microfinance/
Physical Address: Asili Complex Building 1st Floor, River Road
Date Licensed: 8th April 2013
Branches: 2