

**EXTENT OF INFORMATION AND COMMUNICATION  
TECHNOLOGY USAGE IN HUMAN CAPITAL MANAGEMENT  
IN KENYA WOMEN MICROFINANCE BANK**

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**DECLARATION**

This project Proposal is my original work and has not been presented for a degree in any other University

Signed----- Date -----

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**D64/80013/2012**

I confirm that the work in this Research project was done by the candidate under our supervision

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## **DEDICATION**

To my family members and friends

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## **CHAPTER ONE: INTRODUCTION**

### **1.1 Background of the Study**

The challenges and problems associated with the implementation and adoption of information and communication technology systems have led scholars and practitioners to seek to understand and manage the processes and phenomena related to the topic, spawning an extensive literature on the field (Korpelainen, 2011). The relationship between investment in information technology and its effect on organizational performance continues to interest academics and practitioners (Devaraj & Kohli, 2003). Organizations view investments in information technology as a way to combat competition by improving productivity, profitability, and quality of operations (Devaraj & Kohli, 2003).

Devaraj & Kohli, (2003) asserts that, with increased investments in technology comes the responsibility to provide economic justification. Devaraj & Kohli, (2003) posits that today, more than ever, information technology executives encounter the justification issue due to senior management's insistence that the investment be properly utilized. In recent years, a surge in the number of studies that examine the information technology payoff is a testimony to this challenge.

Kenya Women Finance Trust Microfinance Bank is a women-serving deposit taking microfinance institution which requires keeping up with current developments aimed at improving quality service delivery. The target market of the institution is particularly sensitive to effective and quality service.

#### **1.1.1 Information and Communication Technology**

Information and communication technology systems are widely used in organizations. Their use has many favourable consequences, because they support interaction and collaboration, workplace learning (Andriessen, 2003), and work performance (Korpelainen, 2011). Several studies demonstrate that information and communication technology investments are beneficial for performance and productivity (e.g., DeSanctis, 1986; Lafleur and Haines III, 2008). However, the implementation of an information and communication technology system always

entails both organizational and individual changes and therefore user adoption and establishing the use of information and communication technology systems have proven challenging in organizations (Korpelainen, 2011).

Organizations view investments in information and communication technology as a way to combat competition by improving productivity, profitability, and quality of operations (Kohli & Devaraj, 2003). With increased investments in technology comes the responsibility to provide economic justification. Kohli & Devaraj (2003) assert that today, more than ever, information technology executives encounter the justification issue due to senior management's insistence that the investment be properly utilized.

### **1.1.2 Human Capital Management**

Human capital management is a link between workforce and organizational planning (Siddiqui, 2012). Fitz-Enz (2000) defines human capital as traits one brings to the job: intelligence, fulfilling work energy, positive attitude, reliability and commitment, ability to learn, imagination, and creativity. This latter definition brings more factors into equation-commitment, attitude, reliability, and imagination. These factors are critical to success in today's environment. Jia and Lei (2007) suggest that investments are especially focused on training employees' on specialized skills and avoiding these to be used by other companies. Human capital referred to in this theory must possess the dual properties of asset of specialized skills and non-transferability.

Human capital has long been argued as a critical resource in most firms (Clarke, Seng, and Whiting, 2010). Clarke et al. suggests that human capital attributes (including education, experience, and skills) and, in particular, the characteristics of top management affect firm outcomes. Siegel & Shrader (2007) suggest that human capital is likely to be particularly important in the context of technological entrepreneurship. A significant percentage of the value of technology-based new ventures is likely to be determined by the quality of the company's employees, especially the top management team. Furthermore, research has shown that employees with more human capital (i.e., more education and experience) help firms implement new technologies more effectively (Siegel & Shrader, 2007).

### **1.1.3 Use of Information and Communication Technology in Human Capital Management**

DeSanctis, (1986) posits that the key issue in the management of information systems in the 1980s and 1990s was the growing sophistication of specialized information systems within the traditional functional areas of the organization. The human resource information system is one such system, which in recent years has become critical to the operation of the personnel departments of large companies (DeSanctis, 1986). Information systems in personnel have evolved from the automated employee record keeping of the 1960s and 1970s into complex reporting and decision systems today (Lafleur and Haines III, 2008). Although these systems may rely on centralized hardware resources for their operation, they increasingly are being managed, supported, and maintained by a small group of information technology specialists who reside within the personnel department and operate, in many ways, as a microcosmic MIS area (DeSanctis, 1986). The human resource information system is designed to support the planning, administration, decision-making, and control activities of human capital management. Applications such as employee selection and placement, payroll, pension and benefits management, intake and training projections, career-pathing, equity monitoring, and productivity evaluation are supported by this information system (Lafleur and Haines III, 2008).

The human capital management function is undergoing a startling transformation due to the availability of information technology to streamline and improve the efficiency of administration and core services. This study therefore, posits that the driver of information technology impact in human resource department is not the investment in the technology, but the actual usage of the technology.

### **1.2 Kenya Women Finance Trust Microfinance Bank**

Kenya Women Finance Trust Microfinance Bank is a women-serving deposit taking microfinance institution established in 1981. It operates in rural, remote and peri-urban areas where women are the majority and agriculture is the main economic activity. It has a decentralized structure with extensive countrywide network with over 2,000 staff, serving over 590,000 clients through 225 offices. The Microfinance Bank disburses an average of KShs 1.5 billion monthly and has a Loan Book of KShs 14

billion and Deposit Book of KShs 10.5 billion as at December, 2013. The Microfinance bank commands sixty per cent market share as at December, 2013 making it the largest institution in this sector.

### **1.3 Research Problem**

Despite rigorous efforts for the implementation and adoption of information and communication technology systems and leverage it on human capital management, most banks do not link this exercise to organization performance (Korpelainen, 2011). It is widely believed that information and communication technology enables organizations to decrease costs and increase capabilities and thus enables to shape inter-organizational coordination. In many cases, due to the nature of the research design employed, this stream of research has been unable to identify the impact of individual technologies on organizational performance (Korpelainen, 2011).

Kenya Women Finance Trust Microfinance Bank is currently facing stiff competition from non- traditional competitors such as the, Savings and Credit Cooperative Organizations (SACCOs), mainstream commercial banks and non- bank financial institutions such as Safaricom and Celtel in terms of products and services offered (Gitonga, 2012). Increased volatility of the business environment makes systematic talent management more difficult. Rapid change requires human capital strategies that are flexible and creative yet in the vast majority of companies, human capital strategies are calendar-driven rituals which assume that the future will be more or less like the present (Anderson, 2011). Given the central function of human capital function as a protector and developer of human assets and intellectual capital, its transformation from an administrative paper-handling entity into a value- adding contributor is critically important (Lafleur and Haines III, 2008).

Although information technology is often considered a driver of change within human capital, few studies have addressed the associations between information technology and human capital roles effectiveness (Lafleur and Haines III, 2008). This is surprising given the flow of research showing positive impacts of human capital practices on firm performance (Grant, 1991, Wirttenberg, Russell, Harmon, and Fairfield, 2007, and Pace, 2012). A recent study by Lafleur and Haines III, 2008

found that the more detailed the level of analysis; the better the chance to detect the impact, if any of a given technology. This underscores the need to further investigate the information technology- performance relationship at a more detailed level of analysis in one administrative unit- the human capital unit. Numerous studies have attempted to establish the relationship between information technology and firm performance. While some, have demonstrated a clear payoff from use of information technology and firm performance (DeSanctis, 1986; Lafleur and Haines III, 2008) others have demonstrated no relationship (Devaraj, and Kohli, 2003). The studies available on information technology and performance relationship in the human capital are those of Lafleur and Haines III (2008), and DeSanctis (1986). Lafleur and Haines III, (2008) was based on establishing the information technology -performance relationship in the human capital function in large Canadian corporations while, DeSanctis, (1986) traces the development of human resource information system as an entity independent of centralized management information system, assesses its current operation and technological base, and considers its future role in the firm, especially its relationship to the centralized management information system function from 171 United States corporations. However, this study shifted its focus on variables, and industry. Furthermore, these studies were done in different environments from Kenya and thus the results cannot be generalized to Kenya thus a knowledge gap. This study therefore, also attempted to address that gap

Given the mixed findings and different focus on the relationship between information-technology supported organization functions and performance, there was need for further research to conclusively determine the link between information technology- performance relationships at a more detailed level of analysis. This study therefore, attempted to investigate the influence of information technology penetration on the roles and the effectiveness of human capital function at Kenya Women Microfinance Bank. The study was therefore, an attempt to answer the question: How does information and communication technology usage influence human capital management effectiveness in Kenya Women Microfinance bank?

#### **1.4 Objective of the Study**

To determine the extent of usage of information and communication technology in human capital management in Kenya Women Microfinance Bank

#### **1.5 Value of the Study**

This study will be of value to the following parties

The strategic leaders who have the overall responsibilities for firms and whose decisions affect organization outcomes will find the recommendations of this study useful in determining the level of investments in information technology in human capital department in their respective firms and in coming up with appropriate information technology policy framework in their respective organizations.

The study findings will also assist the regulatory authorities in the formulation of banking sectors' policies. For instance, if human resource management information system promotes a bank's better internal and external reporting, then they would encourage its adoption in the banking industry.

The research and academic community could use the findings of this study as a stepping stone for further studies on information and communication technology in enhancing human capital department effectiveness.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1 Introduction**

The chapter covers theoretical foundation of the study, information and communication technology, human capital and human capital management.

### **2.2. Theoretical Foundation of the Study**

#### **2.2.1 Resource Based Theory**

Introduced by Penrose (1959) the resource-based view emphasizes limiting the behavior of rivals by suggesting that firms acquire or develop unique, valuable, and rare resources that are difficult for rivals to replicate (Derfus, Maggitti, Grimm, & Smith, 2008). Resources confer enduring competitive advantage to a firm to the extent that they remain scarce or hard to duplicate, have no direct substitutes and enable companies to pursue opportunities (Barney, 1991). The resource-based view posits that human and organizational resources, more than physical, technical or financial resources, can provide a firm with sustained competitive advantage because they are particularly difficult to emulate (Johnson & Richard, 2001).

The resource-based view of the firm theory advocates that core skills central to a company's competitive advantages must be acquired from internal development within the company itself and that general technology can be acquired from outsourcing (Lei & Jia, 2007). The core skills are characterized by properties such as value, rareness, not being imitable and immobility (Lei & Jia, 2007). Talents capable of core skills are the human capital deserving attention and investments from companies. Resource-based view transpires that organizational personnel's are the most worthwhile asset of an organization and it is hard for the competitors to replicate such human resource (Siddiqui, 2012). He posits that human capital consists of scarce and worthwhile resource that will lead the organization to achieve the competitive edge.

Johnson and Richard (2001) state that a strategic approach to human capital management seeks to provide competitive advantage proactively through its human resources. Resources confer enduring competitive advantage to a firm to the extent

that they remain scarce or hard to duplicate, have no direct substitutes and enable companies to pursue opportunities (Johnson & Richard, 2001). The resource-based view posits that human and organizational resources, more than physical, technical or financial resources, can provide a firm with sustained competitive advantage because they are particularly difficult to emulate (Johnson and Richard, 2001). They assert that, consequently, human resource management should ideally work to enhance the firm's competitive position by creating superior human capital skills, experience and knowledge that contribute to firm economic value.

Mutuku (2012) noted that in order for human capital to contribute to sustainable competitive advantage, it must create value, remain hard to imitate, and appear rare. The resource based view's underlying premise is that firms differ in fundamental ways because each firm possesses a "unique" bundle of resources-tangible and intangible assets and organizational capabilities to make use of those assets. Each firm develops competencies from these resources, and when developed especially well, these become the source of the firm's competitive advantage; (Pearce & Robinson, 2007).

Although the process of using capabilities and resources for strategic purposes can create a short-term competitive advantage, a more crucial element to sustainable advantages is the match between internal capabilities and external changing circumstances (Hart, 1995). Hart (1995) argues that as organizations become committed to existing competency bases, they might end up in a state of isomorphism in which the ability to adapt to changing external circumstances is nil. Therefore, the competencies once being an advantage are now rendered obsolete and are of no strategic importance to a firm. Hart argues that firms will face increasing strategic disadvantages if not matching their resource-base with the growing importance of the natural environment: Strategists and organizational theorists must begin to grasp how environmentally oriented resources and capabilities can yield sustainable sources of competitive advantage (Hart, 1995).



McWilliams, van, Fleet & Cory, (2002) posits that resource based view also contains some political and integrative elements, especially with regard to the acquisition and implementation of non-substitutable resources. Namely, a firm can execute political strategies to raise the production costs of competitors by means of which resource supply is restricted. These strategies come in three main forms: monopolizing the resource through which supply to competitors is denied, differentiation through which a firm gains a unique reputation, and the use of the political process to influence legislation that restricts the use of the resource by competitors. Especially the latter strategy focuses on the power businesses might have in society, as the interaction between governmental action and business practices has become more intertwined over the last years. This interaction influences the number and the extent of various levels of regulation. Through this influential process, firms do realize the pressures from society they need to adhere to, but at the same time also focus on the power position they have within their competitive field (McWilliams et al., 2002).

Siddiqui (2012) posits that overall; the resource based view theory of the firm is often regarded as a plausible theory for a broad variety of business activities. From the resource based view/ theory, human capital can serve as a catalyst for change, providing a critical missing link for creating and sustaining a competitive advantage for organizations operating in an increasingly competitive, knowledge intensive, global economy. The value obtainable from large number of diverse employees who work together is quite high, and therefore given the mix it is impossible for competitors to imitate. In the context of this theory, it is evident that the resources that a firm has will play a big role in the strategic implementation process. The key to resource based approach to strategic planning is understanding, the relationships between resources, capabilities, and competitive advantage. This is because no matter how good the strategies are, without the necessary resources to enable the implementation, they remain in the planning phase (Siddiqui, 2012). Therefore, an organization with a diversity of well talented human capital should be more competitive.

Labour was a necessary component, but increases in the value of the business came from investment in capital equipment (Kern, 2009). Modern economists seem to concur that education and health care are the key to improving human capital and ultimately increasing the economic outputs of the nation. Human capital development theory concludes that investment in human capital will lead to greater economic outputs (Kern, 2009). Siddiqui (2012) posits that the basic feature of human capital is how the organization treats its employees as the most valuable resource. Furthermore by utilizing the workforce efficiently the organization can attain the competitive edge.

### **2.2.2 Knowledge Based View**

According to Curado (2006) the economic change of material-based production to information-based production created a revaluation of the firm workers. Increasingly we find knowledge workers at the core of the organization functions: concept and technology designers, as well as finance and management people. Other individuals are considered to be in the firm's periphery, as a consequence their responsibilities change permanently and they are defined by the tasks they perform at the moment. This way, a new differentiation in labour arises (Curado, 2006).

The knowledge based view of the firm defines knowledge as the resource with the highest strategic value that can be generated, acquired and applied within and between firms (Power and Singh, 2004). This perspective builds on the Resource Based View (Barney, 1991; Penrose, 1959) by suggesting that knowledge promotes competitive advantage because knowledge resources have characteristics consistent with either; a developing capabilities that are rare, valuable, imperfectly imitable and non-substitutable (Power and Singh, 2004). Power and Singh (2004) asserts that knowledge based view of the firm also supports the building of competencies through improving absorptive capacity. As firms' employees are involved in accessing knowledge through boundary spanning activities, recent empirical studies have shown the capacity for organizational learning is increased (Power and Singh, 2004).

Knowledge theories of the firm invariably start from the premise that knowledge is the most important strategic asset that a firm possesses (Lewin and Phela, 1999). Lewin and Phela, (1999) found that all human productivity is knowledge dependent, and all machines are simply embodiments of knowledge. The literature, however, makes a strong distinction between explicit knowledge in the public domain and tacit knowledge. Tacit knowledge cannot be easily codified and can only be learned through observation and practice ( Lewin and Phela, 1999). Riding a bicycle is an oft-quoted example of tacit knowledge. Tacit knowledge is a valuable resource because it cannot be directly appropriated and attempts at imitation will be costly in terms of time (even assuming an instructor can be found). Explicit knowledge, on the other hand, is extremely easy to transfer and contracts protecting knowledge are difficult to enforce (Lewin and Phela, 1999).

Recognition that the major source of knowledge is the expertise and know-how of employees has directed attention to human resource planning and appraisal. For example, ‘competency modelling’ is used to identify the knowledge requirements of different occupations and guide appraisal and training (Grant, 1997). The dilemma for the firm is that, while sustaining a competitive advantage requires barriers to knowledge replication by would-be imitators, to effectively exploit knowledge requires that the firm is capable of ‘replicating it internally’. The success of Marks & Spencer, McDonalds Restaurants, Toyota and Nucor is based, first, upon their initial identification of a better way of doing business and, second, upon the systematization and replication of these business models (Grant, 1997). The knowledge-based view can help us unravel the process through which capabilities can be systematized and, hence, internally replicated (Grant, 1997). Knowledge as primary production tool lies with the individual employees. The firm as vessel to gather specialists, as knowledge-integrating institution has the biggest role to play. Specialist coordination therefore, becomes crucial.

### **2.3 Information and Communication Technology**

Zhang, (2007) posits that technology is an object in the environment that people interact with. He asserts that information and communication technologies are artefacts. As a human-made thing, information and communication technology is, ideally, purposely envisioned to fulfil human needs and to support human values. Creation and design should then be guided by such understanding. Information and communication technology eventually should be used for its intended purpose. Such use should be within a certain context, and should affect humans and their surroundings. However, whether this use and impact match the envisioned needs and values is a question to be studied (Zhang, 2007).

Organizations view investments in information technology as a way to combat competition by improving productivity, profitability, and quality of operations (Kohli & Devaraj, 2003). With increased investments in technology comes the responsibility to provide economic justification. Kohli & Devaraj (2003) assert that today, more than ever, information technology executives encounter the justification issue due to senior management's insistence that the investment be properly utilized. The last decade has witnessed an unparalleled growth in investment in information technology applications. The mainstream academic literature has documented numerous studies that examine the relationship between investments in technology and payoffs realized in terms of enhanced organizational performance (Kohli and Devaraj 2003). It is evident that there are significant differences among studies in terms of the level of analyses, methodologies employed, variables, and contexts examined.

A key issue in the management of information systems in the 1980s was the growing sophistication of specialized information systems within the traditional functional areas of the organization. The human resource information system is one such system, which in recent years has become critical to the operation of the personnel departments of large companies (DeSanctis, 1986). DeSanctis, (1986) asserts that information systems in personnel have evolved from the automated employee record-keeping of the 1960s into complex reporting and decision systems today. The human resource information system is designed to support the planning, administration, decision-making, and control activities of human resources management. Applications

such as employee selection and placement, payroll, pension and benefits management, intake and training projections, career pathing, equity monitoring, and productivity evaluation are supported by this information system (DeSanctis, 1986).

According to DeSanctis, (1986) forces creating pressure for a specialized information system within personnel today include: increased organizational size and complexity, continued physical dispersion of firms across geographical areas, government regulation and reporting requirements for employees, and the overall increase in white collar-work which demand a greater variety of skills for any given job. As in other functional areas, the development of human resource information system as a unit separate from management information system has been made possible by the availability of advanced mainframe software technology (such as packaged applications, database management systems, query systems, and report generators), the development of fourth generation languages and microcomputer systems, and ever-increasing sophistication with regard to computing on the part of functional area staff (DeSanctis, 1986).

Organizations invest a great deal of capital in information and communication technology, hoping for improved employee productivity, increased strategic advantages, and a competitive edge. It is widely believed that the use of information communication technology, therefore, enables people to shape coordination (Kohli and Devaraj, 2003). Development firms and other stakeholders have increasing investments in new technology, hoping they will attract potential consumers during their trials with the technology and trusting that consumers eventually will decide to purchase and use it (Zhang, 2007). For information technology impacts to occur, it is imperative that usage is tied to organizational performance metrics. Although continually evolving, technology does not determine its own trajectory of development and use. It is the individual users who create and innovate, and bring the values of technology to life (Zhang, 2007).

The term communication covers a wide range of phenomena in both the natural and human sciences, from genetic codes to neurological processes, from the pragmatics of interpersonal communication to the Internet (Garnham, 1998). In recent years, development in mobile computing and communication led to the proliferation of mobile phones, tablet computers, smartphones, and notebooks (Zhang, 2007). According to International Telecommunication Union, mobile communications and technology has emerged as the primary technology that will bridge in the least developed countries. Indeed, mobile phones or Bluetooth headsets have become appendages due to their portable nature (Zhang, 2007). We can even talk on our mobile phones through our cars or while on airplanes. Although it cannot be said that anyone can be reached at any-time in many countries, widespread adoption of many information communication technology's is certainly making more people accessible more often (Hillyer &.Stafford, 2012). Hillyer &.Stafford, (2012), defines communication technology as "the hardware equipment, organizational structures, and social values by which individuals collect, process, and exchange information with other individuals". According to Hillyer &.Stafford, (2012), one of the benefits of communication technologies is that they provide extensions of senses (e.g., sight), allowing users to break away from the constraints of physical distances.

According to Zhang, (2007) although computer mediated communication might be considered a subset of information and communication technology, historically this has not been the case. Despite information communication technology and computer mediated communication scholarship covering many of the same ideas, functions, and even technologies, the two originated as different areas of research. Hillyer &.Stafford, (2012), found that "computer-mediated communication systems use computers to structure, store and process communications " (p. 2). The authors' work established that computer mediated communication was different from many traditional methods of communication in allowing conveniences such as written records of conversations and the ability to separate oneself from time and geographical considerations through the asynchronous nature of text-based communication.

Despite pursuit of research on information technology, communication technology's and computer-mediated communication as if they are separate domains, the three terms often describe the same phenomenon such as the use of email, Internet forums, instant messaging, and audio and video chatting in interactions through a variety of technologies such as computers and mobile devices (Hillyer & Stafford, 2012). Both computer-mediated communication and information and communication technology studies have largely focused on the advantages and disadvantages of mediated interactions, with consistent considerations of issues such as synchronicity versus a synchronicity, the amount of time needed to complete tasks and interactions, and the impact of nonverbal and verbal cues (Hillyer & Stafford, 2012).

Although the use of information and communication technology lowers coordination costs, it also increases the complexity of coordination: more co-ordination processes are used and more organizations are involved resulting in more communication activities and in more information to be taken into account when making a decision. An additional result, therefore, is that more and more information becomes available. The World Wide Web is a good example of this. The more information available, the more difficult it gets to find the right information.

### **2.3.1 Human Capital**

Zhao (2008) argues that ideas about human capital have developed over a number of centuries, but these ideas really took form as a theory in the West in the 1960s. The contributions of the theory of human capital to economy and culture are widely recognized. This theory evolved on the basis of Western economic growth theory and studies on human behaviour. The determinant of economic development in Western countries has been changed from physical materials to human capital, and the focus on human behaviour has attracted more and more attention from both theoretical and industrial perspectives since the creation of the school of human relations. Schultz first proposed the explicit concept of human capital with the idea that human capital includes abilities, knowledge, skills and qualifications possessed by individuals (Shuming Zhao, 2008). Recent challenges such as globalization, a knowledge-based economy, and technological evolution, have prompted many countries and organizations to seek new ways to maintain competitive advantage. In response,

the prevailing sense is that the success depends in large part on the people with higher levels of individual competence. In the end, people are becoming valuable assets and can be recognized within a framework of human capital (Kwon & Dae-Bong, 2009).

In the economic perspective, the capital refers to ‘factors of production used to create goods or services that are not themselves significantly consumed in the production process’ (Kwon & Dae-Bong, 2009). Along with the meaning of capital in the economic perspective, the human is the subject to take charge of all economic activities such as production, consumption, and transaction. On the establishment of these concepts, it can be recognized that human capital means one of production elements which can generate added-values through inputting it (Kwon & Dae-Bong, 2009). Human capital has long been argued as a critical resource in most firms (Clarke, Seng, and Whiting, 2010). Clarke et al. suggests that human capital attributes (including education, experience, and skills) and, in particular, the characteristics of top management affect firm outcomes. Siegel & Shrader (2007) suggest that human capital is likely to be particularly important in the context of technological entrepreneurship. A significant percentage of the value of technology-based new ventures is likely to be determined by the quality of the company's employees, especially the top management team. Furthermore, research has shown that employees with more human capital (i.e., more education and experience) help firms implement new technologies more effectively (Siegel & Shrader 2007).

In a market-oriented economy, the competitiveness of a firm depends on its stock of both physical and human capitals as well as the uniqueness of management practices that can bring the firm’s capacity into full play (Xiao, 2001). In response, on job training provided by employers has thus become a firm strategy to develop human capital in order to adapt to changes in the workplace. On-job-training, while upgrading job skills of employees, also develops shared values and ways of working together to strengthen a firm’s unique competitiveness in a transforming economy (Xiao, 2001). Therefore, in-firm training, as opposed to formal education, as a strategy to develop human capital can over time compensate for competence gaps of the internal market and the increasingly complex technological demands of the



workplace. By receiving on job training, the competence of employees is to be re-established (Xiao, 2001).

Kern (2009) found that in the past, economic strength was largely dependent on tangible physical assets such as land, factories and equipment. Labor was a necessary component, but increases in the value of the business came from investment in capital equipment. Modern economists seem to concur that education and health care are the key to improving human capital and ultimately increasing the economic outputs of the nation. Human capital development theory concludes that investment in human capital will lead to greater economic outputs (Kern, 2009). Siddiqui, (2012) posits that the basic feature of human capital is how the organization treats its employees as the most valuable resource. Furthermore by utilizing the workforce efficiently the organization can attain the competitive edge.

### **2.3.2 Human Capital Management**

Human capital management is a link between workforce and organizational planning (Siddiqui, 2012). The human resource function has undergone dramatic change, owing, it would seem, to greater use of rapidly evolving information technology (Lafleur & Haines III, 2008). Presently, with the availability of enterprise resource planning (ERP), advanced human resource management information systems and stand-alone specialty software and web-based employee self- service, the human capital function is poised to improve its efficiency and engage in more significant strategic business roles (Lafleur & Haines III, 2008). They assert that given the central function of human capital management as a protector and developer of human assets and intellectual capital, its transformation from an administrative paper-handling entity into a value- adding contributor is critically important.

Johnson & Richard (2001), argue that effective use of human capital management practices should have a greater impact on firm's performance beyond the simple existence of human capital practices. They argue that effective use of human capital practices should have a greater impact on firm performance beyond the simple existence of human capital practices. Johnson & Richard (2001), also posit that it is the firm's ability to employ its organizational capabilities, its ability to assemble,

integrate and manage human capital that matters because human capital are not inherently productive. Pfeffer (1994) also argues that sustained competitive advantage emanates from effective workforce management. This increased acceptance of the importance of people has resulted in the increased focus on human capital management within the strategic human capital management literature either by way of examining the direct impact of human capital on organizational outcomes or by way of examining the impact of human capital management systems on organizational performance (Lakshman, 2014).

The current focus on human capital management as integral to a firm's strategic processes involves viewing human capital management activities as a resource contributing to firm profitability as opposed to a cost of production. Human capital management should ideally work to enhance the firm's competitive position by creating superior human capital skills, experience and knowledge that contribute to firm economic value (Johnson & Richard, 2001). Successful implementation of human capital management policies and practices remains difficult, making effectiveness elusive. Johnson & Richard (2001) posit that many firms may adopt a policy or practice for institutional reasons, in contrast to those policies competently implemented to provide a potent organizational force

According to Huselid et al (1997) human capital management effectiveness is 'the delivery of high-quality technical and strategic human capital management activities. Successful implementation of human capital management policies and practices remains difficult; making effectiveness elusive. Human capital effectiveness is assessed from technical or strategic effectiveness of the human capital function. Technical effectiveness of human capital function include items that describe how well it performs activities traditionally associated with personnel management which include but not limited to; recruitment, training, and compensation administration. While on the other hand, strategic effectiveness reflects perceptions of how well the human capital function supports business needs, including facilitating teamwork and enhancing quality and involvement (Lafleur & Haines III, 2008). Johnson & Richard (2001) also argues that strategic human capital management effectiveness, in contrast,

stems from the firm building human resource complexities through innovations such as team-based job designs, flexible workforces and employee empowerment.

The human capital function has engaged significant financial resources in information technology in expectation of improving service delivery, and most recognize the potential for improvements in decision making and efficiency (Lafleur & Haines III, 2008). They describe improvements in the speed and quality of human capital management services resulting from a shift from labour intensive to technology-intensive service delivery. According to Lafleur & Haines III, (2008), automation is the best way for human capital to improve effectiveness and become a valuable contributor to the enterprise. They assert that the improved information- processing capacity of information technology should allow human capital to manage vast amounts of information with great speed and accuracy. They also found that increased productivity and rapid response time as benefits from human resource management information systems investment.

Through employing resource-based view, human capital management effectiveness relates directly to firm-level outcomes, particularly when considering the firm context. Strategic human capital management effectiveness is also shown to be examined with respect to human capital policies and practices. Now, more than ever, organizations need to place greater emphasis on attracting human capital rather than financial capital. Because capital is broadly available from investors and lenders, and innovations can be duplicated relatively easily and quickly, effective human resource management is the best way to differentiate one company from another (Kapoor, 2011).

According to information processing theory, the organizational structure design is assumed to improve its information processing capacity since information technology alters the information environment (Lafleur & Haines III, 2008). They assert that organizational structure should also change to accommodate new information-processing capacity. In the area of human capital management, for instance, the last two decades were marked by strong emphasis on the strategic roles and effectiveness of the human capital management function. Thus, the social forces at work strongly

support information- facilitated transitions to more strategic roles and improved effectiveness within the human capital management function (Lafleur &Haines III, 2008).

## **CHAPTER THREE: RESEARCH METHODOLOGY**

### **3.1 Introduction**

This chapter describes the methodology that was used in undertaking the study. The chapter covers the research design, population of the study, data collection and data analysis.

### **3.2 Research Design**

The study adopted a descriptive survey design which was found to be appropriate, where the study seeks to describe the characteristics of certain groups or to estimate the proportion of people who have certain characteristics. The design is also appropriate since the units to be investigated are many (Mugenda and Mugenda 2003).

### **3.3 Population of the Study**

The population of the study was thirty three (33) and consisted of ten departmental heads, five general managers who are in- charge of the zones and 18 regional managers. These are considered as actively involved in day to day management of human capital and therefore, in close liaison with human capital functions. They were therefore, to provide in-depth information on how Kenya Women Finance Trust microfinance bank uses information and communication technology in human capital management.

### **3.4 Data Collection**

Primary data was used in this study. The data was collected using a semi- structured questionnaire. The questionnaire was divided into two parts. Part one of the questionnaire was to gather bio-data of the respondents and institutional information, while part two covered information and communication technology usage in human capital management. The questionnaire was administered through drop and pick method.

### **3.6 Data Analysis**

The data collected was analysed through the use of descriptive statistics such as mean and standard deviation. The findings were presented using tables, figures and charts.

## **CHAPTER FOUR: DATA ANALYSIS, PRESENTATION AND INTERPRETATION**

### **4.1 Introduction**

This chapter presents the findings of the study. The chapter covers the response rate, demographic characteristics of the respondents and extent of information and communication technology usage in human capital management in Kenya Women Microfinance Bank.

### **4.2 Response Rate**

The questionnaires were sent out to the target population of 33 respondents. Twenty four questionnaires were received and found relevant for the purposes of the analysis. This amounted to a response rate of 73% which was considered adequate to make valid conclusions for this study.

### **4.3 Demographics Characteristics of the Respondents**

The demographic characteristics of the respondents covered included gender, rank and length of service in the organisation.

#### **4.3.1 Gender Distribution of the Respondents**

From the Table 4.1 it is evident that majority of the respondents represented by 54% were female while 46% were males.

**Table 4.1: Distribution of Respondents by Gender**

<b>Gender</b>	<b>Percentage</b>
Male	46%
Female	54%
<b>Total</b>	<b>100%</b>

**Source:** Researcher 2014

#### **4.3.2 Rank of the Respondents**

The analyzes from the responses received as per Table 4.2 indicates that 33% were top level managers, while 66% of the respondents were middle level managers.

**Table 4.2: Respondents Rank in the Organization**

<b>Rank</b>	<b>Percentage</b>
Top Level Management	33%
Middle Level Management	67%
<b>Total</b>	<b>100%</b>

**Source:** Researcher 2014

#### **4.3.3 Length of Service of the Respondents**

As per Table 4.3 majority of the respondents (54%) had served in the organization for a period below 10 years, while 46% had served for more than 10 years.

**Table 4.3: Length of Service of the Respondents in the Organization**

<b>Period</b>	<b>Percentage</b>
Below 10 years	54%
Above 10 years	46%
<b>Totals</b>	<b>100%</b>

#### **4.4: Extent of use of Information and Communication Technology in Human Capital Management**

The following statement shows that Table 4.4

**Table 4.4: Means and Standard deviations for measures of use of Information and Communication Technology in Human Capital Management**

<b>Statement</b>	<b>Mean</b>	<b>Standard Deviation</b>
I am satisfied with human capital management function usage of information technology in audit and surveys	3.2	1.4
I have more confidence with the automated employee compensation and benefits management	3.1	1.3
I am satisfied with the automated Performance Management system	3.6	1.2
I am satisfied with the automated human capital planning and career development	3.1	1.3
I am confidence with automated Training needs analysis	3.4	1.2

#### **4.4.1: Extent of use of information and communication technology in human capital Audit and Surveys**

Table 4.4 shows that the respondents agreed with a mean score of 3.2 and a standard deviation of 1.4 that the human capital function uses information technology in carrying out human resource audit. The result therefore, indicate that the human capital function uses information and communication technology to a large extent in human capital audit and surveys as the mean score is above the median score of three (moderate extent). The standard deviation of 1.4 shows that there is a high concentration of the data around the mean which indicates a very small variation from the mean of the respondents' feedback which could mean that they have no varied opinion over this issue. The study results concur with Andriessen, (2003) who indicated that information and communication technology systems are widely used in organizations as their use have many favourable consequences, because they support interaction and workplace learning.

#### **4.4.2: Extent of Use of Information and Communication Technology in Management of Human Capital Compensation and Benefits**

Table 4.4; above shows that the respondents agreed with a mean score of 3.1 and a standard deviation of 1.3 that the human capital function uses information technology in the management of human capital compensation and benefits. The result therefore, indicate that the human capital function uses information and communication technology to a large extent in the management of human capital compensation and benefits as the mean score is above the median score of three (moderate extent). The small standard deviation of 1.3 shows that there is a high concentration of the data around the mean which indicates a very low variation from the mean of the respondents' feedback which could mean that the respondents generally agree over this issue.

The study results therefore, agrees with the findings of Devaraj & Kohli, 2003 who indicated that organizations view investments in information technology as a way of improving productivity and quality of operations.



The study results also concur with Lafleur and Haines III, (2008) who indicated that applications such as payroll, pension and benefits management are supported by human resource information system.

#### **4.4.3: Extent of Use of Information and Communication Technology in Human Capital Performance Management System**

Table 4.4; above shows that the respondents agreed with a mean score of 3.6 and a standard deviation of 1.2 that the human capital function uses information technology in human capital performance management system. The result therefore, indicates that the human capital function uses information and communication technology to a large extent in human capital performance management system as the mean score is above the median score of three (moderate extent). The standard deviation of 1.2 shows that the values in the statistical data set are close to the mean of the data set meaning that there is a very little variation from the mean of the respondents' feedback on the usage of information technology in human capital performance management system.

The study results are consistent with studies done by (DeSanctis, 1986) and (Lafleur and Haines III, 2008) which demonstrated that information and communication technology investments are beneficial for performance management and productivity improvement.

#### **4.4.4: Extent of Use of Information and Communication Technology in Human Capital Planning and Career Development**

Table 4.4; above shows that the respondents agreed with a mean score of 3.1 and a standard deviation of 1.3 that the human capital function uses information technology in the human capital planning and career development. The result therefore, indicate that the human capital function uses information and communication technology to a large extent in human capital planning and career development as the mean score is slightly above the median score of three (moderate extent). The standard deviation of 1.3 is slightly higher but it still evident that there is a high concentration of the data around the mean which indicates a very low variation from the mean of the respondents' feedback which could mean that the respondents generally agree over this issue. From the results it is evident that the human capital management function

in Kenya Women Microfinance bank is slowly embracing automation of its key deliverables. This is consistent with Korpelainen, (2011) who found that implementation of information and communication technology system always entails both organizational and individual changes and therefore user adoption and establishing the use of information and communication technology systems have proven slow and challenging in organizations.

#### **4.4.5: Extent of Use of Information and Communication Technology in Human Capital Training Needs Analysis**

Table 4.4; above shows that the respondents agreed with a mean score of 3.4 and a standard deviation of 1.2 that the human capital function uses information technology in human capital training needs analysis. The result therefore, indicate that the human capital function uses information and communication technology to a large extent in human capital training needs analysis as the mean score is above the median score of three (moderate extent). The standard deviation of 1.2 shows that there is a high concentration of the data set around the mean which indicates a very low variation from the mean of the respondents' feedback which could mean that the respondents generally agree over this issue. This also shows a very little variation from the mean of the respondents' feedback that training needs analysis has been automated.

The study results are consistent with Devaraj & Kohli, (2003) who indicated that, with increased investments in technology comes the responsibility to provide economic justification. Devaraj & Kohli, (2003) posits that today, more than ever, information technology executives encounter the justification issue due to senior management's insistence that the investment be properly utilized.

#### **4.5 Extent of Use of Information and Communication Technology in Human Capital Management**

The five key areas that the researcher sought to have a comparison of the extent of information and communication technology usage from the analysis include; human capital audit; human capital compensation and benefits management; human capital planning and career development and human capital performance management system and human capital training needs analysis. The results of individual parameter mean,

standard deviation and aggregate mean of all the parameters are shown in the figure below:

**Table 4.5: Aggregate Mean of measures of the Extent of Use of Information and Communication Technology in Human Capital Management**

Statement	Mean	Standard Deviation
I am satisfied with human capital management function usage of information technology in audit and surveys	3.2	1.4
I have more confidence with the automated employee compensation and benefits management	3.1	1.3
I am satisfied with the automated Performance Management system	3.6	1.2
I am satisfied with the automated human capital planning and career development	3.1	1.3
I am confidence with automated Training needs analysis	3.4	1.2
Aggregate Mean	3.2	

Table 4.5 above shows that majority of the respondents agreed to a large extent (aggregate mean of 3.2); that the human capital function uses information technology in audit and surveys; employee benefits and compensation; performance Management system; human capital planning and career development and training needs analysis with a mean score above the median score of three. However, the respondents have shown differing variation in their responses with the automation of the human capital function.

From table above, it is evident the human capital management function in Kenya Women Microfinance bank is slowly embracing automation of its key deliverables but is still in transformation from an administrative paper- handling entity into a value- adding contributor to more significant strategic business roles. This is in consistent with the findings by Lafleur and Haines III, (2008) who asserted that human resource information system is designed to support the planning, administration, decision-making, and control activities of human capital management

## **CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS**

### **5.1 Introduction**

This chapter gives the summary, conclusions and recommendations based on the study findings.

### **5.2 Summary**

The purpose of the study was to investigate the extent of information and communication technology usage in human capital management in Kenya Women Microfinance Bank. The objective of the study was to establish the extent of usage of information and communication technology in human capital management in Kenya Women Microfinance Bank. The population of the study comprised of ten departmental heads, five general managers who are in- charge of the zones and eighteen regional managers. The data was collected using a semi- structured questionnaire. The questionnaire was administered through drop and pick method. The data collected was analysed through the use of descriptive statistics.

The study reviewed previous studies with view of establishing research gaps which the present study sought to bridge. This was done through evaluation of methodology employed in terms of research design choice, target population, sampling procedures, data collection instruments, data collection procedures, data analysis, findings, and recommendations. The study benefited from review of literature for it guided the present study in the identification of research gaps. To ensure validity of data collection instruments expert opinion was sought and also a pilot study was carried out.

The findings reveal that; majority of the respondents represented by 54% were female while 46% were male; that 33% were top level managers, while 67% of the respondents were middle level managers. The findings also indicate that majority of the respondents (55%) had served in the organization for a period of below 10 years, while 45% had served for more than 10 years.

The study findings reveal that the respondents agreed to a large extent that the human capital function uses information technology in carrying out human resource audit and surveys (mean score of 3.2) and a standard deviation of 1.4 which indicates a low variation of the opinion of the respondents; that with a mean score of 3.1 against the median figure of three, the respondents agreed to a large extent that the human capital function uses information technology in the management of compensation and benefits, the respondents also indicate a low variability of the opinion (standard deviation of 1.3); that the respondents agreed to a large extent with a mean score of 3.6 against the median figure of three but with a lower variability of the opinion of the respondents (standard deviation of 1.2) that the human capital function uses information technology in the management of human capital performance management system; that with a mean score of 3.1 against the median figure of three and standard deviation of 1.3 the respondents agreed to a large extent that the human capital function uses information technology in the management of human capital planning and career development, although the respondents still indicate a slightly higher variability of the opinion with a standard deviation of 1.3; that the respondents agreed to a large extent (mean score of 3.4) and a standard deviation of 1.2 that the human capital function uses information technology in the training needs analysis, with the standard deviation of 1.2 the data set shows that there is a high concentration of the data around the mean which indicates a very low variation from the mean of the respondents' feedback which indicates that the respondents generally agree over the automation of the human capital function.

### **5.3 Conclusions**

From the findings of the study, it appears that Kenya Women Microfinance Bank uses information and communication technology extensively in all the major human capital management functions.

### **5.4 Recommendations**

The study recommends continuous improvement and capacity building of human resource personnel on the usage of information and communication technology as this will help in the transformation of human capital function from an administrative paper- handling entity into a value- adding contributor to more significant strategic

business roles. Further given the fact that the organization has invested heavily on Human Resource Information System, the organization also needs to invest more of the recruitment of adequate staff who can match the capacity provided by human resource information system used and training the staff on how to use the information technology. This will ensure that all the systems are put in use and aid the staff in developing their careers.

### **5.5 Limitations of the Study**

The findings of the study cannot be generalised due to reliance on self report and perceptual basis of the responses which could have led to some biases.

### **5.6 Suggestion for Further Research**

Further studies should be done in other organizations from the same sector to validate the results, it may be necessary to conduct similar studies using variant methodologies.

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## **APPENDIX I: INTRODUCTION LETTER**

To whom it may concern

Dear Madam/Sir,

I am a student at the University of Nairobi carrying out a research project as part of the course requirement of Master of Science in Human Resource Management. The study seeks to determine the extent of information and communication technology usage in enhancing human capital management in KWFT-Microfinance Bank

I intend to carry out my research in KWFT-Microfinance Bank. The findings will be confidential, strictly for academic use and at no time will your name or the name of your Department be mentioned anywhere in the report. Your honest participation will be highly appreciated.

Yours faithfully,

Wanjau Jackson Ngure

**APPENDIX II: QUESTIONNAIRE**

**PART A: Respondent's Personal Details**

1. Gender M ..... [ ] ..... F [ ]

2.. Your position in the organization (Tick)

Director [ ]

General Manager [ ]

Regional/ Branch Manager [ ]

3. Length of service in KWFT (Tick appropriately)

Below 10 years [ ]

Above 10 years [ ]

4. Name of the Department/Region/ Branch (optional) .....

5. How long has the department/region been in existence? (Tick) as appropriate

Below 10 years [ ] above 10 years [ ]

**PART B: Extent of Use of Information and Communication Technology in Human Capital Management**

1. To what extent do you agree with the following statement on the extent to which IT supported each of the following applications? Use a tick (√) or (x) to mark appropriate answer.

		5	4	3	2	1
1.	I am satisfied with human resource department usage of information technology in audit and surveys					
2.	I have more confidence with the automated employee benefits management					
3.	I am satisfied with the automated performance management system					
4.	I am satisfied with the automated human resource planning and career development					
5.	I am confidence with automated Training needs analysis					

**THANK YOU FOR YOUR PARTICIPATION**

### **APPENDIX III: LISTED DEPARTMENTS**

1. Operations department
2. Human Resource Management
3. Marketing department
4. Special Projects department
5. Finance department
6. Risk and Compliance department
7. Audit department
8. Information and Communication Technology
9. Legal department
10. Credit risk department

### **LIST OF ZONES**

1. Eastern Zones
2. Central Zones
3. Rift Valley Zones
4. Western Zones
5. Nairobi Zones

### **LIST OF REGIONS**

1. Mt Kenya Region West
2. Mt Kenya East
3. Central Rift
4. Lower Eastern
5. Central Eastern
6. South Coast
7. North Coast
8. South Rift
9. North Rift
10. Transzoia
11. Eastern Nyanza
12. South Nyanza
13. Western Region

14. Central Nyanza
15. Nairobi Central
16. Nairobi North
17. Nairobi West
18. Upper Hill

**APPENDIX IV: Extent of use of Information and Communication  
Technology in Human Capital Management**

	<b>Statement</b>	<b>5 To a very great extent</b>	<b>4 To a great extent</b>	<b>3 To a moderate extent</b>	<b>2 To a little extent</b>	<b>1 Not at all</b>
		<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>
1	I am satisfied with human capital management function usage of information technology in audit and surveys	13	54	20	13	0.0
2	I have more confidence with the automated employee compensation and benefits management	25	50	17	8	0.0
3	I am satisfied with the automated Performance Management system	25	29	25	13	8
4	I am satisfied with the automated human capital planning and career development	12	42	25	12	9
5	I am confidence with automated Training needs analysis	17	33	25	17	8