IMPLICATIONS OF KNOWLEDGE MANAGEMENT ON ORGANIZATIONAL LEARNING IN KENYA: A CASE OF IREX

BY

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UNITED STATES INTERNATIONAL UNIVERSITY-AFRICA

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STUDENTS DECLARATION

I, the undersigned, declare that this is my original work and has not been submitted to any other college, institution or university other than the United States International University-Africa.

Signed: ___________________________  Date: ___________________________

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ABSTRACT

The general objective of this study was to determine the implications of knowledge management on organizational learning. The specific objectives of the study were as follows; to establish whether there exists significant relationship between the knowledge management processes and organizational learning. To determine whether integration of knowledge management approaches has a significant relationship with organizational learning, to investigate the significant relationship between knowledge management and organizational learning.

The study adopted a descriptive research design targeting 25 respondents who were selected using the census approach. Primary data was collected using questionnaires which were delivered through drop and pick technique. The collected data was analysed using SPSS to presents descriptive and inferential statistics which were then presented as tables and figures.

The study revealed that majority of the respondents agreed that Knowledge creation, Knowledge sharing and retention, Knowledge acquisition and application, Knowledge, transfer influence organization learning. The study also revealed that majority of the respondent agree on how the following influences organization learning: communities of practice, documenting and sharing of best practices, documenting and sharing of lessons learnt, collaborative technology, use of technology for learning, e-learning and finally an enabling culture for learning and development.

Finally the study revealed that that majority of the respondents agree that indeed the following knowledge management factors affect organization learning as follows: availability of favourable processes and structures affect organization learning, availability of expertise in the organization affect organization learning, an enabling organizational culture affect organization learning and utilization of organizational knowledge affect organization learning.

The study findings lead to a conclusions that indeed organization learning emanates from a number of knowledge management processes. The study also concludes that majority of the respondent agree on how the following influences organization learning: Communities of practice, documenting and sharing of best practices, documenting and sharing of lessons learnt, collaborative technology, use of technology for learning, e-
learning and finally an enabling culture for learning and development. Finally the study concludes that indeed the following knowledge management factors affect organization learning as follows: availability of favourable processes and structures, availability of expertise in the organization, an enabling organizational culture affect organization learning, and utilization of organizational knowledge. The study further concludes that establishing formal knowledge management systems organizational learning. In the same regard knowledge management in relation to organizational learning, knowledge management facilitates a learning culture, improves ways of working increases knowledge acquisition and utilization, encourages peer to peer learning, and enables skills transfer.

The study recommended that organizations need to put into consideration the various elements of knowledge management processes in order to enhance organization learning. It is important therefore for organizations to invest in knowledge creation, knowledge sharing and retention as well knowledge acquisition and application. The study further recommends the need for organizations to invest in technology in order to enhance organization learning. This is because technology has been a big contributor of both content creation and management, tools such as blogs are being used at organizational level to share knowledge and give the target market adequate information. Finally the study recommends that organization should take knowledge management as one of the various elements that can help them leverage on competitive advantage. This can be achieved through creation of an independent knowledge management unit or department to spearhead this process.
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I thank God for presenting to me, this opportunity to learn; and giving the grace to accomplish the course amidst other pressures of life.

I thank the organization I work for, for allowing me study the organization and hence present a case for the organization on my study of interest. I also do thank my employer for a platform to practice and implement my learning. With this knowledge I have been able to pursue relevant opportunities within the organization.

Last but not least, I acknowledge my lecturer Professor Francis Wambalaba and my supervisor Dr. Zachary Mosoti for guiding me through the process. My class mates and especially group seven for the intellectual interaction and support.
DEDICATION
I would like to dedicate this work to my parents Japhetha and Grace Makokha who has taught me to be tenacious and to follow my dreams to the letter. “Baba and Mama I take so much pride in being your progeny.”
To my husband and son – Arouna. Thank you for your patience and support.
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CHAPTER ONE

1.0 INTRODUCTION

1.1 Background of the Study

Knowledge Management (KM) became popular in the early 90’s however its history can be traced further back before its formal inception almost three decades ago. KM has been defined by many writers; this writer will highlight only a few definitions. KM is the explicit and systematic way of enabling vital individual and collective knowledge resource to be identified, created, stored and used for benefits. Its practical expression is the fusion of information management for practical learning (Serrat, 2010).

Anantatmula, (2006) gives a more in-depth definition of KM as an important strategic initiative to utilize information technology and tools, business processes, best practices, designing meaningful KM Processes to improve Organizational Learning (OL) and culture to develop and share knowledge within an organization, and to connect those who possess knowledge with those who do not. Hence it is subsequently important that organizations improve and develop process of collecting, packaging and disseminating information so as to foster OL at both individual and organizational levels so as to increase organizational performance.

Anantatmula (2006) again describes that when an organizations knowledge is managed effectively, it leads to improved process such as communication and collaboration which ultimately improve employee’s skills. In recent years organizations have been seen to develop KM processes and practices to fit in the organizational culture so as to facilitate continuous OL.

The 21st century managers view organizational knowledge as a key performance indicator hence take a strategic approach to mainstream KM practices and improve management of organizational knowledge (Dennis and Vessey 2005). To stay at the top organizations are beginning to lay down strategies that will protect and enhance their intellectual property. Human Resources initiatives such as talent development and human capital development are quickly being implemented to ensure organizations competencies remain high. For these initiatives to be more effective organizations are increasingly adopting KM to be able to learn and grow the wealth of knowledge they have within the organization. Knowledge Management strategy defines how an organization will
operationalise its KM solutions to organizational goals. Knowledge and learning cannot be separated since one has to retain knowledge for them to learn and to learn they have to acquire the knowledge. Therefore, organizational learning can be defined as an organization that builds, supplement and organizes knowledge and routines around their activities and within their cultures and adapt and develop organizational efficiency by improving the use of broad skills of their workforces (Starbuck, 2008). With the realization that organizations can learn from day to day activities which include both successes and failures KM needs to part and parcel of the organizational culture.

Common (2014) argues that organizational learning can be regarded as the ability of an organization to demonstrate that it can learn collectively by applying new knowledge to the policy process or innovation in policy implementation. Implementation also involves learning, through piloting innovative services and structures. Furthermore organizational learning can improve the policy-making capacity of organizations, whereas policy learning helps to explain what is learnt beyond the confines of an organization, and how it is learnt. It is a dynamic process of creation, acquisition and integration of knowledge aimed at the development of resources and capabilities that contribute to better organizational performance (Lopez, et al., 2010).

The quality of institutions is influenced by various factors hence it is crucial to ensure that human resource capacities are properly aligned with the strategic objectives of the organization. The development of staff competencies is an essential part of a strategy to upgrade these capacities and consequently the quality of the organization (Shipton, et al., 2012). Suh (2012) concurs with the importance of managerial encouragement for the innovative thinking of the worker in the areas of planning, learning, and production.

Though a lot of research has shown the positive relationship between KM and OL there still remains a gap since most organizations are yet to fully embrace the practise. In the Kenyan context KM still remains known to a few organizations or if practiced it is practised informally. There is need for more research in this area to in order to sensitize organizations on the benefits of effective and functional KM systems which will enhance organizational learning through building the intellectual capital and sustaining continuous learning.

According to Bergeron (2003) Knowledge Management heavily relies on information systems which as a ripple effect will encourage organizations to identify with current
technologies and gain competitive advantage hence gain recognition in the global market. It is a challenge for managers and organizations to capture all information given the massive organizations and the myriads of data flowing in and out.

Although organizational learning has been claimed to be important for an organization’s competitiveness and survival, research on organizational learning is still needed (Goh, 2011). More empirical work is needed to clarify terminology, constructs and dimensions of organizational learning as well as organizational learning antecedents and outcomes (Argote, 2011).

Since organizational learning as a process of knowledge acquisition, dissemination and exploitation needs to occur daily in an organizational context to be effective, the process needs specific organizational conditions that enable the process (Crossan and Bedrow, 2013). This study will therefore outline methods of KM that have been used by organizations operating in Kenya which managers can see which one is a best fit for their organizations.

1.2 Statement of the Problem
Despite its evolution in the early 90’s in the western world, Knowledge Management is yet to be fully embraced by many organizations. KM is one such initiative of OL that enhances intellectual growth with continuous learning. OL is increasingly becoming the game changer within the current trends in Organizational Development. Managers are required to effectively play their role of building talent and ensuring maximum productivity (Alcaniz, Gomez-Bezares and Roslender, 2011).

Much research has however focused on the individual relationships between organizational learning and organizational culture, organizational learning and leadership, organizational learning and empowerment and organizational learning and organizational performance has been carried out (Chang and Lee 2007; Allegre and Chiva, 2008; Jiménez-Barrionuevo et al., 2011). However no particular research has focused on the implications of Knowledge management on organizational learning in Kenya. This research study therefore seeks to fill this gap by examining how organization learning affects knowledge management in Kenya.

1.3 General Objective
The general objective of this study was to determine the implications of KM on Organizational Learning.
1.4 Specific Objectives
The specific objectives of the study were as follows;
1.4.1 To establish whether there exists significant relationship between the knowledge management processes and organizational learning.
1.4.2 To determine whether integration of knowledge management approaches has a significant relationship with organizational learning.
1.4.3 To investigate the significant relationship between knowledge management and organizational learning.

1.5 Significance of the Study
1.5.1 Organizations
The organizations will benefit by gathering knowledge on proven KM strategies that have worked including the effect that these strategies have on organizational learning which in turn has a positive correlation with organizational performance and overall development (Alcaniz, Gomez-Bezares and Roslender, 2011). Organizations will as well get an opportunity to assess the challenges that they might be faced with while aligning KM with their strategic goals hence make an informed decision that would include risk mitigation strategies or predetermined support systems that would ensure smooth adaption of appropriate KM practises.

1.5.2 Human Capital Developers and Managers
Many managers may not realise the impact of KM hence this paper will sensitize them, the entire employee fraternity and the community at large on the importance of building knowledge for a better informed future. For people seeking careers in this sector they can take KM as a study with a purpose to be future specialists and consultants in the emerging field. Failure to share knowledge leads to loss of companies’ revenue (Babcock, 2004), this is a serious implication on a business’s performance hence management need to look deeper in the concept of KM. By reading this literature management should be enabled to handle better tasks such as decision making and change management which have a direct relationship with KM as an organizational learning initiative.

1.5.3 Information Technology Industry
An increased KM culture will consequently ignite a need for technological invention and innovation to satisfy the need for faster, more efficient and effective in KM practises in
the market. Technology use in Kenya has been on the increase with internet reaching a wider base of people. Kenya has also seen a lot of innovation and inventions in the technology sector in recent years, this study should spark an interest from the local techies on the KM subject.

1.5.4 Policy Makers
The study will provide information and tools for policy makers that they themselves need to ensure they make informed hence effective decisions and policy. Policy Makers can use KM systems to make complex evidence based decisions. For governance purposes, as well, policy makers will develop and implement operational frameworks that will guide the consumption of information.

1.5.5 Researchers
The study should provide some basis of information for future researchers and scholars who might want to study the topic more especially in light of the various dynamics changing workplace. The findings and conclusions will act as a reference for future researchers on KM and its implications on organizational learning

1.6 Scope of the Study
The population targeted for this study was IREX an International non-governmental organization with operations in Kenya. IREX implements KM practises and have an existing KM culture of semi-formal systems. KM is practised in a number of organizations, however not formally but as an occurrence within their day to day job responsibilities, this will determined through an exploration of the study done prior to determine the situation on the ground. This was seen as a limitation since the researcher had to interview organizations that practice KM but does not explicitly recognize it as a discipline. Lastly the research was done on only a few organizations of international affiliation. A study on local institutions with KM was encouraged to capture more comprehensive data which was specific to the Kenya organizational context. The data collection period was between June and July 2015. The researcher investigated standard information that was shared and proven valuable across organizations both locally and internationally.
1.7 Definition of Terms
The following terms were defined as follows in the study:

1.7.1 Knowledge Management
The explicit and systematic management of processes enabling vital individual and collective knowledge resources to be identified, created, stored, shared, and used for benefit. Its practical expression is the fusion of information management and organizational learning (Smith, 2004).

1.7.2 Knowledge
A combination of data and information, to which is added expert opinion, skills, and experience, resulting in a valuable asset that aids decision making. In organizational terms, knowledge is generally thought of as being know-how, applied information, information with judgment, or the capacity for effective action. Knowledge may be tacit, explicit, individual, and/or collective. It is intrinsically linked to people (Serrat, 2009).

1.7.3 Organizational Culture
The specific collection of values and norms shared by individuals and groups in an organization that controls the way they interact with one another and with people outside the organization (Argote, 2011).

1.7.4 Organizational Learning
This is the process of enhancing the employee’s capacity through sharing of knowledge and then modifying its behaviour to reflect the new knowledge (Suh, 2012).

1.7.5 Knowledge Management Tools
The methods and techniques that are used to support or deliver practical knowledge management. These can be either information technology systems, e.g., databases, intranets, extranets, and portals; methodologies; or human networks, e.g., communities of practice (Serrat, 2009).

1.7.6 Human Capital
A collection of resources; all the knowledge, talents, skills, abilities, experience, intelligence, training, judgment, and wisdom possessed individually and collectively by individuals in a population (Goh, 2011).
1.7.6 Intellectual Capital
The value, or potential value, of an organization’s intellectual assets (or knowledge products and services). Attempts to place a financial value on knowledge often define intellectual capital as the combination of human, structural, and technological capital (Serrat, 2009).

1.8 Chapter Summary
The chapter gives an introduction to the topic of study as explained in the background of the study. The three specific objectives which ensured that the study remained focused on the general objectives are highlighted. The chapter explains in detail the importance of the study. In addition the chapter defines the scope of study and finally a definition of terminologies used in the context of the study. Chapter two was on literature review and highlighted what has been done by other authors in the subject of the study. Chapter three explains the research methodology. Chapter four describes the results and findings of the research. Chapter five includes the research discussions, conclusion and recommendations.
CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

This chapter focuses on reviewing the available literature on the various aspects of knowledge management (KM) and implications on organizational learning (OL). The review delves into various theories and empirical findings that act as a foundation for this research study. The theories and findings from past studies reveal the core variables for the study. The chapter also presents the conclusion, summary and research gaps that show the relationship between the variables involved in this study. It summarizes what has been published by other accredited scholars and researchers.

2.2 Knowledge Management Processes and Organizational Learning

Knowledge Management is a driving force of critical importance for business success or failure. Dalkir (2011) looks at KM management process in three classifications; to fit the KM Cycle which entails the creation, dissemination and application of knowledge. The initial set of KM techniques.

2.2.1 Knowledge Creation

Knowledge creation occurs when a unit generates knowledge that is new to it. Research on knowledge creation could benefit from connecting with the literature on creativity and innovation within an organization (Gupta, Tesluk and Taylor, 2007). Research on the influence of experience on creativity is relevant for understanding the organizational learning sub process of knowledge creation. There is increasing evidence that a large, deep and diverse experience base contributes to creativity because it increases the number of potential paths one can search and the number of potential new combinations of knowledge (Nijstad and Stroebe, 2007). At the same time, prior experience can constrain creative thinking, because it can lead to drawing on familiar strategies and heuristics when solving a problem (Benner and Tushman, 2003).

The creation and diffusion of knowledge have become an increasingly important factor in competitiveness. More and more, knowledge is being regarded as a valuable commodity that is embedded in products and in tacit knowledge of highly mobile employees. Although knowledge is increasing being viewed as a commodity or an intellectual asset, it possesses some paradoxical characteristics that are radically different from those of other
commodities. Dalkir (2005) observed that the use of knowledge does not consume it, transferral of knowledge does not result in losing it, knowledge is abundant, but the ability to use it is scarce, much of an organization’s valuable knowledge walks out at the end of the day.

Research has examined how aspiration levels affect search and innovation. Intrinsic rewards have long been considered to be essential for creativity. It was found, for example, that task-oriented teams that are intrinsically motivated to excel in their task, are highly innovative (Hulsheger, Anderson and Salgado, 2009). Extrinsic rewards can also enhance creativity, because they orient recipients towards the generation and selection of new solutions. Strong network ties can constrain creativity when they are formed with similar others, and thus limit the exposure to new information. McFayden et al., (2009) found, however, that members who maintain strong ties with members who comprise a sparse network have the greatest creativity.

Under the initial stage of creation of knowledge, techniques and tools to establish and handle organizational content are necessary to enhance the attainment of this knowledge. Authoring tools and templates will allow organizations to document knowledge systematically in a way that would allow efficient retrieval of information whereas annotations allows comments from different contributors to be seen by readers who view the documents and wish to review comments or track changes (Dalkir, 2011). Expertise profiling is another technique that can be used to leverage on organizational capital since the process takes into account the skills and knowledge of an employee by tracing and capturing the changes over a period of time, (Berendsen et al., 2013). This practise provides knowledge on intellectual capital which can be used to make decision that will help proliferate the organizations capacity.

Data mining and knowledge discovery can be achieved by organizations using the knowledge they have collected in databases to analyse and make statistical inferences that could be used to make decisions in future. These can include research findings, best practices, and organizational history however the collection and storage of this information must meet the ethical prerequisites. Technology has been a big contributor of both content creation and management, tools such as blogs are being used at organizational level to share knowledge and give the target market adequate information. Dalkir (2011) Mashups, an application used to sync two different contents into one is
currently being used by organizations to be more efficient in KM, from a business perspective since they are able to acquire pertinent information from different sources and package it so as to communicate effectively with the customers. Mashups can be used as collaborative tool besides creation of new knowledge.

Archiving organizational data is another technique that can be used to manage an organizational knowledge. Archive can be used to hold information of organizations past events which could be knowledge used to inform current (Wellman, 2009) activities and processes. At individual levels, organizations require to put measure in place that will allow employees to organize their own personal intellectual resources. The amount of information individuals are required to handle and interact with is increasing especially with the need to manage knowledge for improvement. The tools that can support this function include; emails, blogs, wiki’s, chat and are currently in use by many organizations however not as KM tools but for communication purposes.

2.2.2 Knowledge Retention and Sharing
Research on knowledge retention focuses on both the stock and flow of knowledge in the organization’s memory. Research examines the effect of organizational memory on generational performance and how organizations reuse the knowledge in their memory (Majchrzak, Cooper and Neece, 2004). Research also examines whether organizations “forget the knowledge they learn. That is, research examines whether knowledge acquired through organizational learning persists through time or whether it decays or depreciates. Considerable evidence of knowledge decay or depreciation has been found. Organizations, however, vary in the extent to which their knowledge depreciates.

Argote and Ingram (2000) conceived of organizational memory as being embedded in organizational members, tools and tasks and the networks formed by crossing members, tools and tasks. Research on three knowledge repositories or reservoirs is particularly active: members, routines or the task-task network and trans-active memory systems or the member-task network. Research on the effect of member turnover on organizations provides information about the extent to which knowledge is embedded in individual members.

Muller, Zenker, Ramos (2012) in their work highlight project teams as a very strategic way of enhancing the transfer on knowledge. This encourages sharing of knowledge across organizational units as employees work on the same project and exchange ideas
both in a formal and informal fashion. The collaboration on project oriented work can be achieved through brain storming sessions, action plan meetings, discussions, peer-reviews, debriefs but this is not an exhaustive list. According to Dalkir (2011) communication and collaboration technologies facilitate the sharing of knowledge produced within the organization. Information can be disseminated through tools such as internet, emails, phones, video conferencing, chat rooms, messages, twits, discussion forums, wikis, webinars, social networks, group where and various work flow management tools. These collaboration tools make it possible for organizations to work in teams or projects despite geographical difference.

Knowledge sharing is the sharing of one’s own knowledge to other individuals; it is one of major organizational KMS processes. Knowledge sharing through a repository KMS involves what Alavi and Leidner (2001) refers to as codification and storage process, the process of storing the explicit knowledge for later use. Knowledge sharing is critical to a firm’s success as it leads to faster knowledge deployment to portions of the organization that can greatly benefit from it (Syed-Ikhsan and Rowland, 2004). Organizational culture can be defined as the shared, basic assumptions that an organization learnt while coping with the environment and solving problems of external adaptation and internal integration that are taught to new members as the correct way to solve those problems . According to Syed-Ikhsan and Rowland (2004), employees need a strong motivator in order to share knowledge. It is unrealistic to assume that all employees are willing to easily offer knowledge without considering what may be gained or lost as a result of this action.

According to Dalkir (2011) communication and collaboration technologies facilitate the sharing of knowledge produced within the organization. The collaboration on project oriented work can be achieved through brain storming sessions, action plan meetings, discussions, peer-reviews, debriefs but this is not an exhaustive list. Networking technologies such as; intranets, extranets, web servers, browsers, knowledge repositories and portals can be used within organizations to store and share organization expertise within or without the organization. Information on organization policies, practise, manuals, training, expert knowledge, company profiles and more can be share on these platforms. These tools can be easily accessible and filters would be used for different target groups to enhance efficiency. With the current developments of internet and technology these tools are becoming increasingly available and easy to use for the current working class (Dalkir, 2011).
Xue, Bradley and Liang (2011) argued that team environment and empowering leadership highly affect the individual’s knowledge sharing behaviour and attitude. If the social environment of the team is pleasant and satisfies the employees, individual knowledge sharing approach will be enhanced. An effective deployment of a KMS requires several factors. There are several technical and social factors that influence the knowledge sharing behaviour. Based on DeLone and McLean's (2003) Success Model, the technical factors that affect any information system use are related to information quality, system quality and service quality. Information (or knowledge) quality is critical only for knowledge utilization not knowledge sharing behaviour. For knowledge sharing and codification, system quality refers to the quality of the system storage/upload function.

### 2.2.3 Knowledge Acquisition and Application

Knowledge acquisitions have become an increasingly important way for companies to gain access to new knowledge and capabilities. According to Huber (1991) knowledge acquisition is the process by which knowledge is obtained. Huber (1991) refers to this type of organizational learning through acquisition as ‘grafting’. Grafting is a form of external learning or learning from others and relates to knowledge acquisition through access to new members. Or in the words of Huber: “organizations frequently increase their store of knowledge by acquiring and grafting on new members who possess knowledge not previously available within the organization. Sometimes grafting-on of carriers of new knowledge is done on a large-scale basis, as in the case of the acquisition of a whole organization by another. For acquiring complex forms of information or knowledge, grafting is seen to be faster than (knowledge) acquisition through experience and more complete than (knowledge) acquisition through imitation” (1991: 97). Not all corporate acquisitions are meant to support organizational learning through grafting.

According to Haspeslagh and Jemison (1991), there are two fundamentally different ways of improving shareholder wealth with acquisitions which are value capture and value creation. On the one hand, value capture involves shifting value from previous shareholders to new shareholders which tends to be a one-time event. On the other hand, value creation is a long-term process that results from managerial action and interactions between the firms. The outcome of value creation is usually referred to as synergy which occurs when capabilities transferred between firms improve firm’s competitive position and therefore also its performance. Particularly in knowledge intensive and high-tech industries, companies buy other, often smaller companies in order to gain new knowledge.
capabilities. Thus, it is especially in these industries that firms participate in a knowledge acquisition.

The acquisition and application of knowledge phase is very essential to an organization as they try to utilise the intellectual capital they have both internally as well as external sources. An organization can enhance knowledge creation, acquisition and utilization through internal methods such as new hires with technical expertise, internships and apprenticeship, training, developing academic papers, participating in conferences and workshops (Bernardo, Maria and Grandinetti, 2012). External avenues that an organizations knowledge base and utility can benefit from are such as external experts or consultants and partner organizations with similar operations hence relevant expertise. Acquisition of knowledge can also be done through research both on and off-line however a conducive environment needs to be cultivated by managers such as provision of knowledge resource, time and the inspiration to want to acquire the knowledge. Employees autonomy would play a key role in ensuring that they learn on and perform on the job as they are held accountable, (Muller, Zenker and Ramos, 2012).

Technology is becoming an eminent choice for most players in the busy professional sector due to four reasons. First, it is a general belief that technology renders the acquisition of knowledge effective (Strother, 2002; Sunoo, 1998) hence the organization is likely to boost its human capital and grow the knowledge base. Secondly, (Bell and Kozlowski, 2002; Brown, 2001; Ravet and Layte, 1997) the cost of using technology in the knowledge acquisition initiatives employed by organizations is a cost effective option, this is because it takes less time and material and it is easily scalable. Third, technology plays a major role in today’s diverse work environment that brings about geographical differences and preferred mode of learning in the digital age (Bell and Kozlowski, 2002; Brennan, McFadden and Law, 2001; Touger, 1997). Lastly, to benchmark, compete and stay relevant in the industry in light of the first moving technological innovations organizations are steadily adapting these technologies to the new developments and be identified as tech savvy (Chan and Ngai, 2007; Meyer and Rowan, 1977; Orlikowski, 1992). Digital technology is purposefully applied as a tool to deliver Knowledge, Skills and Abilities required for the improvement of on-the-job performance (Salas and Cannon Bowers, 2001; Schreiber and Berge, 1998).
2.2.4 Knowledge Transfer

Knowledge transfer has always been a challenge for organizations. Its importance has grown in recent decades for three related reasons. First, knowledge appears to be an increasing proportion of many organizations’ total assets and secondly organizations have moved away from hierarchical methods of control toward more decentralized organizational structures and increased employee involvement (Kinicki and Kreitner, 2009). This has resulted in more creativity by frontline employees and subunits, but fewer obvious organizational paths through which the transfer can occur. Finally, advances in information technology have created new means of knowledge transfer. Innovations such as Lotus Notes, the Internet, and intranets all hold the potential for increased diffusion of innovations. However, technology alone cannot solve the problem of knowledge transfer; organizational structures and practices must facilitate and motivate transfers. Knowledge transfer is only valuable when it is integrated into a set of policies for knowledge generation and capture. In principle, knowledge transfer can be broken down into idea creation, sharing, evaluation, dissemination, and adoption (Argote and Ingram, 2000).

Theoretical work recommends that organizations learn indirectly from the experience of other units as well as directly from their own experience. Learning indirectly from the experience of others, or vicarious learning, is also referred to as knowledge transfer. This transfer can be congenital and occur at the organization’s birth (Huber, 1991) or after the organization has been established. Empirical work has provided evidence of knowledge transfer – both when an organization first begins operation (Argote and Ingram, 2000) and on an ongoing basis after the organization has been established. Considerable variation has been observed, however, in the extent of transfer. A current theme in research on knowledge transfer is identifying factors that facilitate or inhibit knowledge transfer and thereby explain the variation observed in the extent of transfer.

Knowledge transfer typically occurs across a boundary. The boundary could be between occupational groups, between organizational units or between geographic areas. Organizations, especially for-profit firms, need to balance transferring knowledge internally with keeping the knowledge in a form that it is hard for other organizations to imitate. Argote and Ingram (2000), argued that embedding knowledge in the networks involving members was an effective strategy for managing this tension.
2.3 Knowledge Management Approaches and Organizational Learning

According to Herwig (2003), technology-oriented knowledge management is a KM perspective that involves operationalizes technology so as to furnish employees in an organization with the information they require to deliver on their jobs. O’Dell and Herbert (2011) categorize the approaches to KM into two dependent depending on how much each is inclined to either tacit (formal or structure Knowledge that can be found in documents, contracts, manuals) or explicit knowledge (what one know or believes from experiences they have been exposed to). The self-service category includes technology and access to information through interactions in or outside of the organization. This includes the tools and techniques discussed above. The self–service approach implies that the organization has systems and process to manage the vast amounts of knowledge that they produce over time and the employees are willing and able to access this information in order to do their work efficiently and effectively. They are able to learn, be creative and make knowledge based decisions in their line of duty.

In work environments where a lot of information is shared KM activities become normal routines as they are seamlessly integrated into day to day activities of the organization. Lessons learnt is one approach of the knowledge management which entails documenting lessons learned or database system of lessons learned where an organization can collect information on what was done right in the past and hence improving future processes. Organization can use this analysis to encourage behaviour change and improve on their standards. This could also be a base to create more knowledge by looking at how the organization can do things differently (Serrat, 2010). Some organization have adapted the culture of documenting lessons learnt however some still do the same mistakes over and over again. For the practice to be effective organization need to encourage a culture of talking and listening to their clients and employees, this data is what will tell them what needs to improve and how to make the adjustments. Communities of practise form another category of KM approaches (Serrat, 2010).

O’Dell and Herbert (2011) define community of practice as a formal network of employees faced with issues hence come together either virtually or face to face to share and learn from each other. This approach has been identified as one of the most successful KM approaches since it generates solutions from a group of people with a similar goal who speak from experience and a knowledge point of view and in the process learn and develop each other. Today organizations harbour massive talents from the
people they employ since the intellectual levels have steadily increased with availability of tertiary institutions. A culture of community of practice would grow the organizations knowledge bank as they utilise their human and social capital through sharing and solving problems collectively.

Technology has been a big contributor of both content creation and management, tools such as blogs are being used at organizational level to share knowledge and give the target market adequate information. Dalkir (2011) Mashups, an application used to sync two different contents into one is currently being used by organizations to be more efficient in KM, from a business perspective since they are able to acquire pertinent information from different sources and package it so as to communicate effectively with the customers. Mashups can be used as collaborative tool besides creation of new knowledge. The internet provides an abundance of options for KM systems and technologies however organizations should exercise action in the selection of the appropriate technologies; more so since technology is always changing and quite a number are rendered redundant after a period of time (Jashapara, 2011).

According to Dalkir (2011), taxonomies – the classification of information into comprehensible smaller chunks – can assist an organization to better manage loads of information. Intelligent agents such as; expert systems, personalization, push/pull technologies, recommender systems, visualization, intelligent maps/agents, automated taxonomies, text analysis can be adopted by organizations to manage the knowledge that get in large amounts and needs to be understood and to be feedback to a waiting party. With the filtering agents less time will be spent acquiring the right knowledge and sourcing for more information that will facilitated creation of solutions by employees. Folksonomy or social tagging can aid groups in collaborative knowledge management initiatives since a larger number of people are able to enlarge data content by creating tags on a specific content. This helps not only to share the present knowledge but also to build on it as relevant individuals give their own opinion and extrapolate on what is there already.

Jashapara (2011) explains ontology as an overall conceptualization of the different domains of knowledge that is shared as a standard way of organizing, managing and understanding information. Ontologies provide a structured formal way of building knowledge and allows for easy updating. There are both manual and technology based
ontology tools which can be create and manipulated on ontology editors. Archiving organizational data is another technique that can be used to manage an organizational knowledge. Archive can be used to hold information of organizations past events which could be knowledge used to inform current (Wellman, 2009) activities and processes. At individual levels, organizations require to put measure in place that will allow employees to organize their own personal intellectual resources. The amount of information individuals are required to handle and interact with is increasing especially with the need to manage knowledge for improvement. The tools that can support this function include; emails, blogs, wiki’s, chat and are currently in use by many organizations however not as KM tools but for communication purposes.

According to Clyde (2005), computer-based technology (CBT) has immensely refined KM and better solutions are expected in future for organizations which leverage on technology for competitive advantage. In new world organizations CBT approaches that are increasingly being adapted include; computer-mediated communication, computer-supported group cooperation, databases, digital documents, search engines, web crawlers, solvers and spreadsheets for deriving knowledge, text mining, data mining, pattern recognition.

Organizations using technology at the different activity levels of KM can gain competitive advantage if efforts are implemented to align KM initiatives to the fast changing environment. Digital technology is purposefully applied as a tool to deliver Knowledge, Skills and Abilities required for the improvement of on-the-job performance (Salas and Cannon Bowers, 2001; Schreiber and Berge, 1998). The evolution of digital computers has made it possible for organizations to manage knowledge in a cost effective and timely manner. The telecommunication industry has brought about wireless transfer and electronic transfer hence global networks of knowledge; organizations do not have to blame geographical barriers to KM initiatives (Jashapara, 2011). E-learning and M-learning have been recent developments which organizations can explore as strategic way of encouraging KM.

Technology is widely used in the first world economies and developed countries in all the sectors of the economy. The phenomenon is gaining prevalence in the African continent, Kenya being branded as the gateway to technology. In Kenya such technology as computers, smart phones, internet etc. are accessible not forgetting that the incumbent 4th
government has promised to extend laptops to pupils joining public primary schools class one. It is therefore a necessary to explore what opportunities are there for Kenya as a developing country in tapping TBT as a strategic approach to developing its workforce and staying competitive in the global arena.

Information on how to improve processes and practices will be collect through KM initiatives hence informing managers on the appropriate decisions to make which will propel the organization to being more effective. Organizations must not only be content with better learners but they must put to use the intellectual capital that they possess, doing what you know best will definitely pedestal you as the best in the market and will therefore make more profits, get a larger market share and lead with innovations (Alcaniz, Gomez-Bezares and Roslender, 2011).

2.4 Relationship between Knowledge Management and Organizational Learning

2.4.1 Effect of Knowledge Management on Organizational Learning

According to Serrat (2010) knowledge management practice requires processes and structures which manifest in organizational learning and learning organizations. The environment where knowledge is used in a productive manner is heavily guided with how the systems and processes foster learning. Knowledge management will add value to organizational Learning as organizations strategies on how to manage the process better so as to use the information to anticipate about the future, build talented teams and that can comprehend business complexities. The world today is very competitive; organizations are caught up in the rat race to try and stay afloat or set the industry stands. They cannot ignore the pressure to be the best all round especially with the advent of choice and variety from the consumers end. Surviving in this erratic environment requires organizations hold on to what it knows, how to use this information optimally, how speedy it can adapt to change, and how quickly it can generate new knowledge. Organizations that have a culture of acquiring new knowledge and learning from past events have a record of being more profitable and attaining their strategic goals (Wellman, 2009).

The complexity of 21st century world has accelerated the establishment of dynamic environments and for those who fail to learn, adapt and accept the changes will be easily destroyed. Organizations can leverage on learning however this is subject to management of organizational knowledge. In modern environment the importance of knowledge
management has grown significantly. Expertise, experience and wisdom of old employees can be stored and used for educating new employees. Knowledge driven culture facilitates innovation and innovation can bring change in the world. Despite the crucial role played by KM a good number of organizations especially in developing countries do not give the required attention to KM. Knowledge management is essential especially in the case of organizational change. Internal factors like death, retirement, transfer, promotion, etc. bring about change in the organization. In a diversified economic environment adaptations of learning and development to acquire new changes and tackle challenges are taking place (Argote and Ingram, 2000).

Organizations seek to use a range of authoritative sources, including knowledge held by individual and within knowledge systems maintained by the organization. Explicit knowledge can be documented, categorised, transmitted to others as information, and illustrated to others through demonstrations, explanations and other forms of sharing. The organizations give importance and attention to the system of transferring best practices, experiences and knowledge, getting stakeholder’s ideas to maximize the sharing of knowledge. According to Singh and Sharma (2011) knowledge management has positive relation with organizational learning and culture and as a result, with employee’s satisfaction. To improve the employee’s satisfaction and knowledge management system, organizations must have to adopt different policies to enhance the learning environment and make strategies to improve the organizational culture. Birasnavet al., (2011) argued that this is possible for transformational leaders to influence the employees view about human capital benefits and also able to enhance this, by way of involving employees in KM initiatives, establishing suitable culture of sharing and encouraging communication among employees.

Serrat (2010) conceptualizes learning as a fundamental for KM more so since it is a social process that requires collaboration and knowledge sharing. Organizations that encourage a learning culture will hence need to facilitated communication and interaction by employees within and outside the organization for learning to take place. KM initiatives such as networking technologies can be used to learn about our organizations and collect market intelligence in the environments that our organizations operate in. This will ensure that the employees stay informed, creativity levels are high, innovation and personal development is encouraged. Equally, O’Dell and Herbert (2011) the retention of knowledge needs to be supported by human capital initiatives such as training, personnel
management, and organizational development hence increasing the scope of employees who benefit from the process and encouraging learning on a wider scope. This will generate a culture of support from other units of the organizations hence increasing effectiveness of individual work and personal growth facilitated by collaborations and systems that support continuous learning.

Organizations have experienced many changes in the way they operate as a result of such factors as the shift to a knowledge economy and the increased streamlining of work activities because of technological innovations. Furthermore, the shift in focus from products to services has encouraged greater recognition of the importance of the knowledge held within an organization (Debowski, 2006). Any organization that desires to attain and sustain competitive advantage has to learn better and faster from their successes and failures. KM involves creation, acquisition, refinement, storage, sharing, transfer and re-use of knowledge. Well applied KM have a significant contribution to the enhancement of organizational processes including innovation, collaborative decision-making, individual and collective learning and enable enhanced organizational behaviours, better relationships and decision making, which determine a higher quality of products and services.

As a result, all these intermediate outcomes lead to improved organizational performance on the long term. In order to fully employ KM systems, it is mandatory to differentiate between transfer and sharing. While the former concept relates to focused communication from a sender to a known receiver, the latter implies dissemination of knowledge to a target which is not known in advance (King, 2009). In addition, there is another way to conceptualize the connection between KM and OL. This particular interpretation implies regarding OL as the goal of KM. By motivating the creation, dissemination and application of knowledge, KM initiatives pay off by helping the organization embed knowledge into organizational processes so that it can continuously improve its practices and behaviours and pursue the achievement of its goals. From this perspective, OL is one of the important ways in which the organization can sustainably improve its utilization of knowledge (Kim and Mauborgn, 2011).

McIver et al., (2013), bring in the knowledge in-practise (KIP) concept to explain the relationship between KM activities in an organization and how they support employees in learning about the organization by understanding their roles, the organizations cause of
action to accomplish set goals and what they need to do to ensure achievement of the set goals. This concept can be used by managers for managing the human capital within their organizations since it explains how different individuals understand and use knowledge for the benefit of the organization. With this information managers of human capital are able to determine how best to implement KM initiatives and align them with the work that employees do, to ensure that the knowledge is practised and learned. KM initiatives can be used to facilitate employees acquisition and utilization of different types of knowledge that will lead to improvement of organizational learning and gain competitive advantage over competitors. Competitors can also learn and avoid mistakes through shared KM practices.

According to McIver et al., (2013) a firm will benefit more if they select and focus on KM activities that will translate to greater benefit and are required at the most essential units of the business. The firm will manage scarce resource more efficiently and leverage on KM initiatives to cascade learning to other units of the organization. A fundamental role of KM is to convert knowledge held in organizational documents to explicit knowledge which can hence be packaged appropriately to be availed to employees thereby facilitating learning at both personal and organizational levels (Anantatmula, 2006).

### 2.4.2 Relationship between Knowledge Management and Organization Learning

Structuring and mainstreaming ways in which a firm shares and creates its knowledge is key to organizational learning and performance (Yang, 2007). Lee and Choi (2003) developed a model that includes seven KM enablers both social and technical as being positively related to a firm’s knowledge creation processes which, in turn, are positively related to the firm’s innovations and its overall performance. Using a 6-point Likert scale, multiple informants from 58 firms were surveyed for their perceptions about their respective firm’s status with respect to the enablers, its knowledge creation processes, its innovativeness, and its performance relative to competitors in terms of perceived market share, profitability, growth rate, and success. They find that trust is an important enabler of knowledge creation, technology is an enabler of one kind of knowledge creation process, and firm innovativeness is critical for achieving better relative performance.

The knowledge chain theory noted earlier has been the subject of empirical studies looking for survey-based evidence of linkages between the nine KM activities and the
four PAIR approaches to competitiveness (Holsapple and Jones 2007). These studies find that every one of the knowledge chain activities can be performed in ways that improve organizational competitiveness, and can do so in each/all of four ways: enhanced productivity, agility, innovation, and reputation. Thus, the authors suggest that each knowledge chain activity deserves to be considered as a candidate for improving firm performance; combinations of these activities may well lead to even more potent or sustainable performance edges.

Yousefi, Taherkhani, Ghardashkhani, (2014), carried out a study on the effect of Knowledge Management on Organizational Learning and Performance of Education Department of Abhar County. The objective of the study was to determine effect of knowledge management on learning and performance in education department of Abhar County. The independent variable in this study was knowledge management and organizational performance assumed as dependent variable and organizational learning as mediator variable. After determination of validity, Cronbach’s alpha for knowledge management questionnaire calculated as 0.957 and 0.953 for organizational learning questionnaire. The data collected from 71 people was analyzed aiding SPSS and linear regression method. Results of this research indicated that knowledge management had an effect on organizational learning and performance, and organizational learning on organizational performance as well as organizational learning had an effect, as a mediator between performance and knowledge management. The study however, failed to determine the extent to which knowledge management, knowledge creation, transfer, sharing and retention, impacted organization learning in an organization.

Danish (2012) carried out a study on impact of Knowledge Management Practices on Organizational Performance, evidence from Pakistan. This study attempts to measure the impact of organizational change, knowledge sharing and organizational learning on knowledge management and as a result, its influence on organizational performance. Questionnaires were considered as a tool to get responses. 150 questionnaires were distributed in financial services sector and telecommunication sector. To verify hypothesis and to determine the association of each variable, Pearson correlation coefficient and descriptive statistics were used and studied to get mean and standard deviation of the variables. Knowledge sharing, organizational change and organizational learning are the three variables which are considered to effect knowledge management directly in an organization. The study found that knowledge management is significantly
positively correlated with knowledge sharing; organizational change and organizational learning values of .501, .632 and .683 indicate a strong correlation. Result of regression analyses showed that one percent change in knowledge sharing brings 29.5 percent change in knowledge management, a unit change in organizational change led to 12.5 percent change in knowledge management and that a unit change in organizational learning would led to a change of 38.6 percent in knowledge management.

Huang (2005) carried out a study on knowledge management from the organizational perspective and define knowledge management, explicit knowledge and tacit knowledge, and three attributes of effective knowledge management maturity, dynamic and self-growth. Subsequently, the study found that organizational culture and structure which influence successful knowledge management by reviewing literatures and illustrating a knowledge enterprise. The found that to manage knowledge effectively, the organization should create a knowledge sharing culture whose component is trust and consider it from four targets inter personal, group, organizational and institutional. Trust should go through the process of knowledge management, and emphasize trust to people and to knowledge content simultaneously. Organizational structure should facilitate knowledge sharing and be able to manage tacit knowledge. Also, it should align with organization strategies, fit the culture and lead to organization learning by using technology as an enabler.

Hsu (2014) carried out a study on effects of organization culture, organizational Learning and IT Strategy on Knowledge Management and Performance. The study analysed and measured the current business organizations with information technology (IT) strategy, organization cultural and organization learning mediate by knowledge management that would effect on performance. The study hypothesized that there was a significant relationship among IT strategy, organization cultural, organization learning and knowledge management, the relationship between IT strategy and knowledge management, the relationship between organization cultural and knowledge management, and the relationship between organization learning and knowledge management. Research design using descriptive statistics, and multiple regression statistical analysis explained the relationship of variables. The regression was conducted to test each variables effect on organizational performance. Knowledge management was as the mediator between IT strategy and performance, organization cultural and performance, and organization learning and performance. The results found that there were the significant implication
between knowledge management and organizational learning. The study failed to determine the extent to which knowledge management impact of organizational learning.

Abdi and AmatSenin, (2014) carried out a conceptual analysis on impact of knowledge management on organizational innovation. The purpose of the study was to examine the effect of knowledge management on innovation directly and through organizational learning. The research results indicate that OL has a full mediation effect on KM and OI. The relationship between knowledge management and organizational innovation was found to be critical output of knowledge. The hypotheses of this study had been developed with the help of supporting theory. In this study, choosing a survey with questionnaire was allowed, hypothesis testing and generalizing the results. The questionnaire was developed on the basis of literature review and previous empirical evidences. Thus, a survey by questionnaire was conducted to provide sufficient evidence for the basic relationship of the study and potential moderating factors. The study findings reveal that knowledge management exerts a complete mediating effect on organizational innovation through organization learning. However there are still some confusing relations between KM and OL.

2.5 Chapter Summary
The chapter analyses literature of a similar nature that was authored by other researchers. The review takes systematic approach by looking at knowledge management process including both tools and approaches that have been used and integrated by different organizations and effect of knowledge management on organizational learning. Chapter three describes the research design and methodology that will be applied to carry out the study.
CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Introduction

This chapter gives details on the research methodology to be adopted for this study. The focus herein is in the areas of the research design, target population, sample design and size and the data collection instruments and procedures. According to Leedy (1993), research methodology is defined as an operational framework within which the facts are placed so that their meaning is seen more clearly. The research methodology is explicit with the various procedures that will be used to conduct the study and the techniques that will be used to obtain research data and how the data will be used to obtain subsequent recommendations.

3.2 Research Design

Saunders, Lewis and Thornhill, (2009) defines research design as a blue print that enables the researcher to collect data, measure and subject the data to analysis the various stages of the research. It is the program that guides the researcher in data collection, analysis and interpretation. To gather information the researcher employed descriptive research design to depict what already exists within a target sample. This method was preferred since it seeks to describe the effect of the dependent variable Knowledge Management (KM) on the independent variable Organizational Learning (OL). The descriptive was used to describe the population being studied by observing and describing the behaviour of a selected population without influencing it in any way (Malhotra and Birks, 2007). The descriptive research design facilitated the study of a specific problem, through profiling people or events, collection of data, tabulation of frequencies on research variable to reveal; who, what, when, where or how (Cooper and Schindler, 2008). The descriptive research design was used to describe the population being studied and researchers may follow-up with examinations of why the observations exist and what the implications of the findings are (Jackson, 2009).

For collection of primary data, a survey was used where a questionnaire was administered to the targeted sample. A survey according to Malhotra and Birks (2007), is a way of collecting data from people about their characteristics, their thoughts and their behaviours. The structured questionnaire facilitated the collection of this information as
the researcher tries to determine the characteristics of the given population. The study was both quantitative and qualitative and will look at the relationship between the independent and independent variables. The questionnaire was administered in confidentiality and the questions were easily understood and unambiguous. Data collected was analysed using SPSS to realise the findings and conclusions of the study.

3.3 Population Sampling Design

3.3.1 Population

Population includes all the elements that the researcher seeks to investigate. The entire group of people, events or things that the researcher wants to study, (Cooper and Schindler, 2003; Neuman, 2000). The total population that the researcher is interested in comprises of 25 respondents, both male and female including top and middle managers and employees who have come into contact with knowledge management as end users.

Table 3.1: Population

<table>
<thead>
<tr>
<th>Population</th>
<th>Target</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management Staff</td>
<td>5</td>
<td>20</td>
</tr>
<tr>
<td>Employees</td>
<td>20</td>
<td>80</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: IREX, 2015

3.3.2 Sampling Design

3.3.2.1 Sampling Frame

Cooper and Schindler (2008) define a sampling frame as the list of elements as to where the sample is drawn and is representative of the population. The sample frame included employees and managers who are involved with KM in the organization and can prudently answer the research questions. Due to the population size the sample frame was a census done on the whole population in the organisation.

3.3.2.2 Sampling Technique

KM is widely practised at the IREX hence an almost homogeneous populations with employees who have interacted with KM. However the population of the organisation is
small hence the whole population was picked for the study. As a result census survey was adopted in the study.

3.3.2.3 Sample Size

A sample is an infinite part of the larger population which is studied to derive information about the whole (Sekaran, 2003). The study requires a certain confidence level for the given percentage of the results to be deemed as true. Additionally they provide complementary information about the precision of sample estimates and the probability of how close they are to the population parameters (Porte, 2012). Sekaran (2003) establishes that for social research 95% confidence level is accepted as a standard. The certainty level to be used for this study is 95% with an error of 5%. Mugenda, O and Mugenda, A. (1999) points out that a sample size of 10% of the target population or above is representative of the whole population. In this study a census was used and therefore there is no sample that was employed.

3.4 Data Collection Methods

The researcher collected primary data using a structured questionnaire. The questionnaire tool ensured consistency and simplicity so that data is captured correctly. According to Mugenda O and Mugenda, A, (1999) questionnaires give a detailed answer to complex problems. They are also a popular method for data collection because user friendly and cost-effective. One is able to obtain relatively objective data when using questionnaires hence in this study, questionnaire were used to acquire valid data. The questionnaires had both open ended and clos ended questions. A Likert scale was used in measuring the questions. The first part of the questionnaire comprised of questions on the background information of the respondents while the second third and fourth sections were questions with regards to the respective research objectives.

3.5 Research Procedures

The research procedure included developing a structured questionnaire to assist in gathering statistical information. The questionnaire underwent a pilot testing with four members of staff of IREX to establish its validity and reliability in terms of language and the respondent’s ability to satisfactorily respond to the questions. The questionnaires were then distributed to the respondents physically, as an attachment and as an online link where they can access complete and send to the researcher. The respondents worked with a two week time frame to complete the questionnaire.
The research has chosen to work with paper based administering of questionnaire to improve effectiveness in respondent response as well as help in finding out more information that was not captured by the questionnaire. Martinez (2010) observe that the difference in surveys between web based and paper based depends mainly on the goal as well as on the target population being studied.

3.6 Data Analysis Methods
Once the data was collected, the responses to the open ended questions underwent a coding process before being entered into Statistical Package for Social Sciences (SPSS) program for analysis to develop a quantitative inference to the subject of study.

Descriptive analysis of the data was used. The data analysis involved measures of central tendency and frequencies. Frequency distributions and percentages were utilized in the descriptive part of this study to draw conclusions while regression analysis was used in the inferential part of this study to draw conclusions. The data was then summarized and presented by means of tables and figures. The analysis was carried out by the use of Microsoft Excel and SPSS.

3.7 Chapter Summary
This chapter explains the research methodology of the study by giving explicit information on; research design, population sampling design, data collection methods, research procedure and data analysis methods. The researcher also ensured that all moral principles and ethical values are observed in order to produce genuine and accurate results and findings without being biased to the research subject. Chapter four presents the results and finding of the study.
CHAPTER FOUR

4.0 RESULTS AND FINDINGS

4.1 Introduction

Chapter four is mainly made up of the results and findings of the study on the research questions. This particular data was mainly collected from the respondents who were involved in this particular study. The chapter is divided into three distinct sections, where the first section looks at the background of the respondents, with questions seeking to establish their level of education as well as their work experience. The second section covers findings on whether there exists significant relationship between the knowledge management processes and organizational learning, whether integration of knowledge management approaches has a significant relationship with organizational learning and the significant relationship between knowledge management and organizational learning.

4.2 Background Information

4.2.1 Gender of Respondents

Table 4.1 presents findings on the various respondents’ gender as collected from the field. As indicated in the table, majority of the respondents were female while the minorities were male. The table shows clearly that indeed 60 percent were female while the remaining 40 percent were male. This means that the organization under study has put into consideration the 30 percent gender requirements in the workplace.

<table>
<thead>
<tr>
<th>Sex</th>
<th>Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
</tr>
<tr>
<td>Female</td>
<td>15</td>
</tr>
<tr>
<td>Male</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
</tr>
</tbody>
</table>

4.2.2 Number of Working Years

Table 4.2 presents data on number of working years the respondents have worked in the project. As seen in the table, it is evident that a substantial number of the respondents have been worked for more than 2 years old. Looking at the findings in specificity it was
evident that 60 percent of the respondents have worked for more than 2 years while 20 percent have each worked for less than 1 year and between 1-2 years respectively.

Table 4.2: Number of Working Years

<table>
<thead>
<tr>
<th>Number of Working Years</th>
<th>Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
</tr>
<tr>
<td>Less than 1 year</td>
<td>5</td>
</tr>
<tr>
<td>1-2 years</td>
<td>5</td>
</tr>
<tr>
<td>More than 2 years</td>
<td>15</td>
</tr>
<tr>
<td>TOTAL</td>
<td>25</td>
</tr>
</tbody>
</table>

4.3 Knowledge Management Process

The first objective of the study was to examine if there exists significant relationship between the knowledge management processes and organizational learning. The following subsection presents findings with regards to how the respondents perceived the relationship between the knowledge management processes and organizational learning.

4.3.1 Knowledge Creation

Figure 4.1 presents a summary of the findings with regards to knowledge creation influences organization learning. As seen in the figure 4.2, 13.9 percent of the respondents strongly agree, 27.8 percent of the respondents agree, 2.8 percent of the respondents strongly disagree, and 27.8 percent of the respondents disagree while 27.8 percent of the respondents are neutral on how knowledge creation influences organization learning.

Figure 4.1: Knowledge Creation
4.3.2 Knowledge Sharing and Retention

Figure 4.2 presents a summary of the findings with regards to how the respondents perceived the aspect of knowledge sharing and retention and how this helps in enhancing knowledge management. As seen in the figure 4.2, 30.6 percent of the respondents strongly agree, 16.7 percent of the respondents agree, 2.8 percent of the respondents strongly disagree, and 30.6 percent of the respondents disagree while 19.4 percent of the respondents are neutral when it comes to how the respondents perceived the aspect of knowledge sharing and retention and how this helps in enhancing knowledge management.

Figure 4.2: Knowledge Sharing and Retention

4.3.3 Knowledge Acquisition and Application

As shown in the figure 4.3, 58 percent of the respondents strongly agree, 33 percent agree, while 2 percent are neutral on knowledge acquisition and application influences knowledge management. On the contrary 5 percent of the respondents disagree, while 2 percent strongly disagree.

Figure 4.3: Knowledge Acquisition and Application
4.3.4 Knowledge Transfer

As presented in the figure 4.4, it is evident that 35 percent of the respondents strongly agree, 41 percent agree, while 11 percent are neutral on how knowledge transfer influences knowledge management. On the contrary, 5 percent of the respondents disagree, while 6 percent strongly disagree.

![Figure 4.4: Knowledge Transfer](image)

A regression analysis was therefore carried out to examine if there is a relationship between knowledge management process and organization learning. The model summary in table 4.3 (a) shows that knowledge management process contributes 60.3 percent of organization learning, the remaining percent is contributed by other variables not included in the model. The ANOVA table (b) value for F-static was 71.509 and p value of 0.00 shows that the model is significant. Finally, as seen in table 4.3 (c), there is a positive significant relationship between knowledge management process and organization learning.

**Table 4.3(a, b, c): Relationship between Knowledge Management Process and Organization Learning**

<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>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.7774</td>
<td>.603</td>
<td>.595</td>
<td>4.57088</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Learning
b)

### ANOVA\(^a\)

<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>1494.033</td>
<td>1</td>
<td>1494.033</td>
<td>71.509</td>
<td>.000(^b)</td>
</tr>
<tr>
<td>Residual</td>
<td>981.967</td>
<td>24</td>
<td>20.893</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2476.000</td>
<td>25</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Learning

b. Predictors: (Constant), KMP

c)

### 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>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>40.316</td>
<td>4.537</td>
<td>.885</td>
<td>.000</td>
</tr>
<tr>
<td>KMP</td>
<td>1.855</td>
<td>.219</td>
<td>.777</td>
<td>8.456</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Learning

### 4.4 Knowledge Management Approaches

The second objective of the study was to determine whether integration of knowledge management approaches has a significant relationship with organizational learning. The following table 4.5 shows that majority of the respondent agree on how the following influences organization learning: Communities of practice (91%), Documenting and sharing of best practices (88%), Documenting and sharing of lessons learnt (93%), Collaborative technology e.g. wiki’s, chats, emails, blogs (92%), Use of technology for learning (99%), E-learning (93%) and finally An enabling culture for learning and development (92%).
Table 4.4: Knowledge Management Approaches

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Uncertain</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>F-statistic</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communities of practice</td>
<td>57%</td>
<td>34%</td>
<td>5%</td>
<td>2%</td>
<td>2%</td>
<td>4.25</td>
<td>1.101</td>
<td>67.2</td>
<td>0.000</td>
</tr>
<tr>
<td>Documenting and sharing of best practices</td>
<td>64%</td>
<td>24%</td>
<td>4%</td>
<td>9%</td>
<td>0</td>
<td>4.45</td>
<td>1.223</td>
<td>53.4</td>
<td>0.005</td>
</tr>
<tr>
<td>Documenting and sharing of lessons learnt</td>
<td>73%</td>
<td>20%</td>
<td>4%</td>
<td>4%</td>
<td>5%</td>
<td>3.91</td>
<td>1.024</td>
<td>51.23</td>
<td>0.000</td>
</tr>
<tr>
<td>Collaborative technology e.g. wiki’s, chats, emails, blogs etc.</td>
<td>64%</td>
<td>28%</td>
<td>6%</td>
<td>2%</td>
<td>0</td>
<td>3.15</td>
<td>1.301</td>
<td>45.14</td>
<td>0.005</td>
</tr>
<tr>
<td>Use of technology for learning</td>
<td>71%</td>
<td>28%</td>
<td>2.0%</td>
<td>1%</td>
<td>0</td>
<td>3.62</td>
<td>1.113</td>
<td>45.06</td>
<td>0.000</td>
</tr>
<tr>
<td>E-learning</td>
<td>65%</td>
<td>28%</td>
<td>3%</td>
<td>2%</td>
<td>7%</td>
<td>4.09</td>
<td>1.251</td>
<td>63.07</td>
<td>0.000</td>
</tr>
<tr>
<td>An enabling culture for learning and development</td>
<td>71%</td>
<td>21%</td>
<td>3%</td>
<td>3%</td>
<td>6%</td>
<td>4.11</td>
<td>1.041</td>
<td>62.13</td>
<td>0.000</td>
</tr>
</tbody>
</table>

The model summary in table 4.5 (a) shows that knowledge management approaches contributes 50.0 percent of organization learning; the remaining percent is contributed by other variables not included in the model. The ANOVA table (b) value for F-static was 51.234 and p value of 0.00 shows that the model is significant. Finally as seen in table 4.5 (c), there is a positive significant relationship between knowledge management approaches and organization learning with a beta .658 of with the t-value at 6.876 which was significant. This implies that indeed organization learning is influenced by knowledge management process.

Table 4.5: Knowledge Management Approaches and Organization Learning

a) 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>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.589*</td>
<td>.500</td>
<td>.491</td>
<td>2.12457</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Learning
b)

ANOVA

<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>1041.725</td>
<td>1</td>
<td>1041.725</td>
<td>51.23</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>1034.275</td>
<td>24</td>
<td>26.261</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2076.000</td>
<td>25</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: c

b. Predictors: (Constant), KMA

c)

Coefficients

<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>(Constant)</td>
<td></td>
<td>39.723</td>
<td>5.656</td>
<td></td>
</tr>
<tr>
<td>KMA</td>
<td></td>
<td>.658</td>
<td>.280</td>
<td>.708</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Learning

4.5 Relationship between Knowledge Management and Organizational Learning

The third and final objective of the study was to investigate the significant relationship between knowledge management and organizational learning. Table 4.6 shows that majority of the respondents agree that indeed the following knowledge management factors affect organization learning as follows: 76 percent of the respondents agree that availability of favorable processes and structures affect organization learning, 73.4 percent of the respondents also agree that Availability of expertise in the organization affect organization learning Additionally 80 percent of the respondents were in agreement that an enabling organizational culture affect organization learning. On the other hand 78.3 percent of the respondents agreed that utilization of organizational knowledge affect organization learning. The study further revealed that 85 percent of the respondents agreed that establishing formal knowledge management systems organizational learning.
Table 4.6: Knowledge Management Factors

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Uncertain</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>Availability of favorable processes and structures</td>
<td>41.7</td>
<td>35.0</td>
<td>3.3</td>
<td>13.3</td>
<td>3.3</td>
<td>4.18</td>
</tr>
<tr>
<td>Availability of expertise in the organization</td>
<td>46.7</td>
<td>26.7</td>
<td>6.7</td>
<td>13.3</td>
<td>1.7</td>
<td>4.06</td>
</tr>
<tr>
<td>An enabling organizational culture</td>
<td>35.0</td>
<td>45.0</td>
<td>5.0</td>
<td>10.0</td>
<td>0</td>
<td>4.01</td>
</tr>
<tr>
<td>Availability of social processes that encourage learning</td>
<td>43.3</td>
<td>35.0</td>
<td>6.7</td>
<td>5.0</td>
<td>1.7</td>
<td>4.07</td>
</tr>
<tr>
<td>Utilization of organizational knowledge</td>
<td>50.0</td>
<td>35.0</td>
<td>3.3</td>
<td>10.0</td>
<td>1.7</td>
<td>4.13</td>
</tr>
<tr>
<td>Establishing formal knowledge management systems</td>
<td>50.0</td>
<td>33.3</td>
<td>6.7</td>
<td>6.7</td>
<td>1.7</td>
<td>4.25</td>
</tr>
</tbody>
</table>

Table 4.7 further reveals that majority of the respondents were in agreement that they are able to know more about the organization (91 percent), they are able to understand my job responsibilities better (72 percent), they are able to achieve organizational goals better (90 percent), they are able to acquire and share information (87 percent), they are able to learn on the job (93 percent) and finally organizational processes are better understood (97 percent).
Table 4.7: Knowledge Management Effects

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Uncertain</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>I am able to know more about the organization</td>
<td>70.1</td>
<td>20.9</td>
<td>5.0</td>
<td>2.0</td>
<td>2.0</td>
</tr>
<tr>
<td>I am able to understand my job responsibilities better</td>
<td>60.1</td>
<td>11.9</td>
<td>20.0</td>
<td>8.0</td>
<td>0</td>
</tr>
<tr>
<td>I am able to achieve organizational goals better</td>
<td>55.0</td>
<td>35.0</td>
<td>5.0</td>
<td>5.0</td>
<td>0</td>
</tr>
<tr>
<td>I am able to acquire and share information</td>
<td>72.0</td>
<td>15.0</td>
<td>3.0</td>
<td>5.0</td>
<td>5.0</td>
</tr>
<tr>
<td>I am able to learn on the job</td>
<td>69.0</td>
<td>24.0</td>
<td>7.0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Organizational processes are better understood</td>
<td>74.0</td>
<td>23.0</td>
<td>3.0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 4.8 further shows that majority of the respondents agreed with the following statement on knowledge management in relation to organizational learning. As seen in the table 95 percent of the respondents agree that knowledge management facilitates a learning culture, improves ways of working (90.3 %), increases knowledge acquisition and utilization (95%), encourages peer to peer learning (87%) and enables skills transfer (73%).

Table 4.8: Influence of Knowledge Management on Organization Learning

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Uncertain</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>Facilitates a learning culture</td>
<td>72.0</td>
<td>23.0</td>
<td>3.0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Improves ways of working</td>
<td>67.0</td>
<td>23.3</td>
<td>1.7</td>
<td>1.3</td>
<td>7.0</td>
</tr>
<tr>
<td>Increases knowledge acquisition and utilization</td>
<td>55.0</td>
<td>40.0</td>
<td>5.0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Encourages peer to peer learning</td>
<td>45.0</td>
<td>32.0</td>
<td>10.0</td>
<td>13.0</td>
<td>0</td>
</tr>
<tr>
<td>Enables skills transfer</td>
<td>42.0</td>
<td>31.0</td>
<td>10.0</td>
<td>13.0</td>
<td>4</td>
</tr>
</tbody>
</table>

The R value in Table 4.9 (a) was 0.756 indicating that there is a positive relationship between knowledge management and organization learning. R squared value of 0.572 shows that only 57.2 % of organization learning is explained by knowledge management
and the remaining 42.8% is explained by other factors not included in the model. The model was significant as shown in Table 4.9 (b) with $F=256.611$ and $p=0.000$. This means knowledge management has significant effects on organization learning. As shown in Table 4.9 (c), knowledge had a $t$ value of 16.019 and $p$ value of .000.

**Table 4.9(a, b, c): Knowledge Management and Organization Learning**

(a) **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>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.756*</td>
<td>.572</td>
<td>.570</td>
<td>5.90258</td>
</tr>
</tbody>
</table>

Predictors: (Constant), Learning

(b) **ANOVA**

<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>8940.463</td>
<td>1</td>
<td>8940.463</td>
<td>256.611</td>
<td>.000*</td>
</tr>
<tr>
<td>Residual</td>
<td>6689.377</td>
<td>192</td>
<td>34.841</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>15629.840</td>
<td>193</td>
<td>34.841</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Learning
b. Predictors: (Constant), KM

c. **Coefficients**

<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>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>41.973</td>
<td>3.466</td>
<td></td>
<td>12.110</td>
</tr>
<tr>
<td>KM</td>
<td>.930</td>
<td>.058</td>
<td>.756</td>
<td>16.019</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Learning
4.6 Chapter Summary

Chapter four is mainly made up of the results and findings of the study on the research questions. This particular data was mainly collected from the respondents who were involved in this particular study. The chapter is divided into three distinct sections, where the first section looks at the background of the respondents, with questions seeking to establish their level of education as well as their work experience. The second section covers findings on whether there exists significant relationship between the knowledge management processes and organizational learning, whether integration of knowledge management approaches has a significant relationship with organizational learning and the significant relationship between knowledge management and organizational learning. The next chapter presents a summary of the findings as well as discussions, conclusions and recommendations.
CHAPTER FIVE

5.0 DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction
The general objective of this study was to determine the implications of KM on Organizational Learning. The specific objectives of the study were as follows; to establish whether there exists significant relationship between the knowledge management processes and organizational learning. To determine whether integration of knowledge management approaches has a significant relationship with organizational learning, to investigate the significant relationship between knowledge management and organizational learning. This chapter presents a summary of the findings, followed by the discussions of the findings which were followed by conclusions and recommendations.

5.2 Summary
The general objective of this study was to determine the implications of knowledge management on organizational learning. The specific objectives of the study were as follows; to establish whether there exists significant relationship between the knowledge management processes and organizational learning. To determine whether integration of knowledge management approaches has a significant relationship with organizational learning, to investigate the significant relationship between knowledge management and organizational learning.

The study adopted a descriptive research design targeting 25 respondents who were selected using the census approach. Primary data was collected using questionnaires which were delivered through drop and pick technique. The collected data was analysed using descriptive and inferential statistics and presented in form of tables and figures.

The study revealed that majority of the respondents agreed that Knowledge creation, Knowledge sharing and retention, Knowledge acquisition and application, Knowledge transfer influence organization learning.

The study also revealed that majority of the respondent agree on how the following influences organization learning: communities of practice, documenting and sharing of best practices, documenting and sharing of lessons learnt, collaborative technology, use of technology for learning, e-learning and finally An enabling culture for learning and development.
Finally the study revealed that that majority of the respondents agree that indeed the following knowledge management factors affect organization learning as follows: availability of favourable processes and structures affect organization learning, availability of expertise in the organization affect organization learning, an enabling organizational culture affect organization learning and utilization of organizational knowledge affect organization learning.

5.3 Discussion

5.3.1 Knowledge Management Process

The study revealed that majority of the respondents agreed that Knowledge creation, knowledge sharing and retention, knowledge acquisition and application, knowledge transfer influence organization learning. The study also revealed that majority of the respondent agree on how the following influences organization learning: communities of practice (91%), documenting and sharing of best practices (88%), documenting and sharing of lessons learnt (93%), collaborative technology e.g. wiki’s, chats, emails, blogs (92%), use of technology for learning (99%), e-learning (93%) and finally an enabling culture for learning and development.

The findings on knowledge sharing and retention affirm that indeed the creation and diffusion of knowledge have become an increasingly important factor in competitiveness. More and more, knowledge is being regarded as a valuable commodity that is embedded in products and in tacit knowledge of highly mobile employees. Although knowledge is increasingly being viewed as a commodity or an intellectual asset, it possesses some paradoxical characteristics that are radically different from those of other commodities. Dalkir (2005), observed that the use of knowledge does not consume it, transferral of knowledge does not result in losing it, knowledge is abundant, but the ability to use it is scarce, much of an organization’s valuable knowledge walks out at the end of the day.

The findings also agree with studies that have examined how aspiration levels affect search and innovation. Intrinsic rewards have long been considered to be essential for creativity. It was found, for example, that task-oriented teams that are intrinsically motivated to excel in their task, are highly innovative (Hulsheger, Anderson and Salgado, 2009). Extrinsic rewards can also enhance creativity, because they orient recipients towards the generation and selection of new solutions. Strong network ties can constrain
creativity when they are formed with similar others, and thus limit the exposure to new information. McFayden, Samadeni and Cannella (2009), found, however, that members who maintain strong ties with members who comprise a sparse network have the greatest creativity.

The findings agree with Argote and Ingram (2000), who conceived of organizational memory as being embedded in organizational members, tools and tasks and the networks formed by crossing members, tools and tasks. Research on three knowledge repositories or reservoirs is particularly active: members, routines or the task-task network and trans-active memory systems or the member-task network. Research on the effect of member turnover on organizations provides information about the extent to which knowledge is embedded in individual members. In the same regard Muller, Zenker and Ramos (2012), in their work highlight project teams as a very strategic way of enhancing the transfer on knowledge. This encourages sharing of knowledge across organizational units as employees work on the same project and exchange ideas both in a formal and informal fashion. The collaboration on project oriented work can be achieved through brainstorming sessions, action plan meetings, discussions, peer-reviews, debriefs but this is not an exhaustive list. According to Dalkir (2011), communication and collaboration technologies facilitate the sharing of knowledge produced within the organization. Information can be disseminated through tools such as internet, emails, phones, video conferencing, chat rooms, messages, twits, discussion forums, wikis, webinars, social networks, group where and various work flow management tools. These collaboration tools make it possible for organizations to work in teams or projects despite geographical difference.

The findings also agree with a study by Muller, Zenker and Ramos (2012), in their work highlight project teams as a very strategic way of enhancing the transfer on knowledge. This encourages sharing of knowledge across organizational units as employees work on the same project and exchange ideas both in a formal and informal fashion. The collaboration on project oriented work can be achieved through brainstorming sessions, action plan meetings, discussions, peer-reviews, debriefs but this is not an exhaustive list. According to Dalkir (2011), communication and collaboration technologies facilitate the sharing of knowledge produced within the organization. Information can be disseminated through tools such as internet, emails, phones, video conferencing, chat rooms, messages, twits, discussion forums, wikis, webinars, social networks, group where and various work
flow management tools. These collaboration tools make it possible for organizations to work in teams or projects despite geographical difference.

Finally, the findings agree with Haspeslagh and Jemison (1991), who argues that there are two fundamentally different ways of improving shareholder wealth with acquisitions which are value capture and value creation. On the one hand, value capture involves shifting value from previous shareholders to new shareholders which tends to be a one-time event. On the other hand, value creation is a long-term process that results from managerial action and interactions between the firms. The outcome of value creation is usually referred to as synergy which occurs when capabilities transferred between firms improve firm’s competitive position and therefore also its performance. Particularly in knowledge intensive and high-tech industries, companies buy other, often smaller companies in order to gain new knowledge capabilities. Thus, it is especially in these industries that firms participate in a knowledge acquisition.

The acquisition and application of knowledge phase is very essential to an organization as they try to utilise the intellectual capital they have both internally as well as external sources. An organization can enhance knowledge creation, acquisition and utilization through internal methods such as new hires with technical expertise, internships and apprenticeship, training, developing academic papers, participating in conferences and workshops (Bernardo, Maria and Grandinetti, 2012).

5.3.2 Knowledge Management Approach and Organization Learning

The study also revealed that majority of the respondent agree on how the following influences organization learning: communities of practice (91%), documenting and sharing of best practices (88%), documenting and sharing of lessons learnt (93%), collaborative technology e.g. wiki’s, chats, emails, blogs (92%), use of technology for learning (99%), e-learning (93%) and finally an enabling culture for learning and development.

The findings agree with a study by Dalkir (2011), who argues that indeed taxonomies – the classification of information into comprehensible smaller chunks – can assist an organization to better manage loads of information. Intelligent agents such as; expert systems, personalization, push/pull technologies, recommender systems, visualization, intelligent maps/agents, automated taxonomies, text analysis can be adopted by organizations to manage the knowledge that get in large amounts and needs to be
understood and to be feedback to a waiting party. With the filtering agents less time will be spent acquiring the right knowledge and sourcing for more information that will facilitated creation of solutions by employees. Folksonomy or social tagging can aid groups in collaborative knowledge management initiatives since a larger number of people are able to enlarge data content by creating tags on a specific content. This helps not only to share the present knowledge but also to build on it as relevant individuals give their own opinion and extrapolate on what is there already.

In the same regard the findings are in with the argument by Clyde (2005), who states that computer-based technology (CBT) has immensely refined KM and better solutions are expected in future for organizations which leverage on technology for competitive advantage. In new world organizations CBT approaches that are increasingly being adapted include; computer-mediated communication, computer-supported group cooperation, databases, digital documents, search engines, web crawlers, solvers and spreadsheets for deriving knowledge, text mining, data mining, pattern recognition. Organizations using technology at the different activity levels of KM can gain competitive advantage if efforts are implemented to align KM initiatives to the fast changing environment.

Digital technology is purposefully applied as a tool to deliver Knowledge, Skills and Abilities required for the improvement of on-the-job performance (Salas and Cannon Bowers, 2001; Schreiber and Berge, 1998). The evolution of digital computers has made it possible for organizations to manage knowledge in a cost effective and timely manner. The telecommunication industry has brought about wireless transfer and electronic transfer hence global networks of knowledge; organizations do not have to blame geographical barriers to KM initiatives (Jashapara, 2011). E-learning and M-learning have been recent developments which organizations can explore as strategic way of encouraging KM.

Information on how to improve processes and practices will be collect through KM initiatives hence informing managers on the appropriate decisions to make which will propel the organization to being more effective. Organizations must not only be content with better learners but they must put to use the intellectual capital that they possess, doing what you know best will definitely pedestal you as the best in the market and will
therefore make more profits, get a larger market share and lead with innovations (Alcaniz, Gomez-Bezares and Roslender, 2011).

Finally the findings affirm that technology is widely used in the first world economies and developed countries in all the sectors of the economy. The phenomenon is gaining prevalence in the African continent, Kenya being branded as the gateway to technology. In Kenya such technology as computers, smart phones, internet etc. are accessible not forgetting that the incumbent 4th government has promised to extend laptops to pupils joining public primary schools class one. It is therefore a necessary to explore what opportunities are there for Kenya as a developing country in tapping TBT as a strategic approach to developing its workforce and staying competitive in the global arena.

Information on how to improve processes and practices will be collect through KM initiatives hence informing managers on the appropriate decisions to make which will propel the organization to being more effective. Organizations must not only be content with better learners but they must put to use the intellectual capital that they possess, doing what you know best will definitely pedestal you as the best in the market and will therefore make more profits, get a larger market share and lead with innovations (Alcaniz, Gomez-Bezares and Roslender, 2011).

5.3.3 Knowledge Management and Organization Learning

Finally the study revealed that that majority of the respondents agree that indeed the following knowledge management factors affect organization learning as follows: 76 percent of the respondents agree that availability of favorable processes and structures affect organization learning, 73.4 percent of the respondents also agree that Availability of expertise in the organization affect organization learning Additionally 80 percent of the respondents were in agreement that an enabling organizational culture affect organization learning. On the other hand 78.3 percent of the respondents agreed that utilization of organizational knowledge affect organization learning. The study further revealed that 85 percent of the respondents agreed that establishing formal knowledge management systems organizational learning. In the same regard majority of the respondents agreed with the following statement on knowledge management in relation to organizational learning. As seen in the table 95 percent of the respondents agree that knowledge management facilitates a learning culture, improves ways of working (90.3
%, increases knowledge acquisition and utilization (95%), encourages peer to peer learning (87%), and enables skills transfer (73%).

The findings agree with Yousefi, Taherkhani, Ghardashkhani, (2014), who carried out a study on the effect of Knowledge Management on Organizational Learning and Performance of Education Department of Abhar County. The objective of the study was to determine effect of knowledge management on learning and performance in education department of Abhar County. The independent variable in this study was knowledge management and organizational performance assumed as dependent variable and organizational learning as mediator variable. After determination of validity, Cronbach’s alpha for knowledge management questionnaire calculated as 0.957 and 0.953 for organizational learning questionnaire.

In the same regard the findings agree with Abdi and AmatSenin, (2014) who carried out a conceptual analysis on impact of knowledge management on organizational innovation. The purpose of the study was to examine the effect of knowledge management on innovation directly and through organizational learning. The research results indicate that OL has a full mediation effect on KM and OI. The relationship between knowledge management and organizational innovation was found to be critical output of knowledge. The hypotheses of this study had been developed with the help of supporting theory. In this study, choosing a survey with questionnaire was allowed, hypothesis testing and generalizing the results. The questionnaire was developed on the basis of literature review and previous empirical evidences. Thus, a survey by questionnaire was conducted to provide sufficient evidence for the basic relationship of the study and potential moderating factors. The study findings reveal that knowledge management exerts a complete mediating effect on organizational innovation through organization learning.

Finally the findings agree with Serrat (2010), who conceptualizes learning as a fundamental for KM more so since it is a social process that requires collaboration and knowledge sharing. Organizations that encourage a learning culture will hence need to facilitated communication and interaction by employees within and outside the organization for learning to take place. KM initiatives such as networking technologies can be used to learn about our organizations and collect market intelligence in the environments that our organizations operate in. This will ensure that the employees stay informed, creativity levels are high, innovation and personal development is encouraged.
Equally, O’Dell and Herbert (2011), the retention of knowledge needs to be supported by human capital initiatives such as training, personnel management, and organizational development hence increasing the scope of employees who benefit from the process and encouraging learning on a wider scope. This will generate a culture of support from other units of the organizations hence increasing effectiveness of individual work and personal growth facilitated by collaborations and systems that support continuous learning.

McIver et al. (2013), bring in the knowledge in-practise (KIP) concept to explain the relationship between KM activities in an organization and how they support employees in learning about the organization by understanding their roles, the organizations cause of action to accomplish set goals and what they need to do the ensure achievement of the set goals. This concept can be used by mangers for managing the human capital within their organizations since it explains how different individuals understand and use knowledge for the benefit of the organization. With this information managers of human capital are able to determine how best to implement KM initiatives and align them with the work that employees do, to ensure that the knowledge is practised and learned. KM initiatives can be used to facilitated employees acquisition and utilization of different types of knowledge that will lead to improvement of organizational learning and gain competitive advantage over competitors. Competitors can also learn and avoid mistakes through shared KM practices.

The findings agree with McIver et al. (2013), who argues that a firm will benefit more if they select and focus on KM activities that will translate to greater benefit and are required at the most essential units of the business. The firm will manage scarce resource more efficiently and leverage on KM initiatives to cascade learning to other units of the organization. A fundamental role of KM is to convert knowledge held in organizational documents to explicit knowledge which can hence be packaged appropriately to be availed to employees thereby facilitating learning at both personal and organizational levels (Anantatmula, 2006).

Finally the findings also agree with Hsu (2014), carried out a study on effects of organization culture, organizational Learning and IT Strategy on Knowledge Management and Performance. The study analysed and measured the current business organizations with information technology (IT) strategy, organization cultural and organization learning mediate by knowledge management that would effect on
performance. The study hypothesized that there was a significant relationship among IT strategy, organization cultural, organization learning and knowledge management, the relationship between IT strategy and knowledge management, the relationship between organization cultural and knowledge management, and the relationship between organization learning and knowledge management. Research design using descriptive statistics, and multiple regression statistical analysis explained the relationship of variables. The regression was conducted to test each variables effect on organizational performance. Knowledge management was as the mediator between IT strategy and performance, organization cultural and performance, and organization learning and performance. The results found that there were the significant implication between knowledge management and organizational learning. The study failed to determine the extent to which knowledge management impact of organizational learning.

5.4 Conclusions

5.4.1 Knowledge Management Process and Organization Learning
The study findings lead to a conclusions that indeed organization learning emanates from a number of knowledge management processes. The further concludes that majority of the respondents agreed that Knowledge creation, Knowledge sharing and retention, Knowledge acquisition and application, Knowledge, transfer influence organization learning.

5.4.2 Knowledge Management Approach and Organization Learning
The study concludes that majority of the respondent agree on how the following influences organization learning: Communities of practice, documenting and sharing of best practices, Documenting and sharing of lessons learnt, Collaborative technology, Use of technology for learning, E-learning and finally an enabling culture for learning and development.

5.4.3 Knowledge Management and Organization Learning
Finally the study concludes that indeed the following knowledge management factors affect organization learning as follows: availability of favorable processes and structures, availability of expertise in the organization, an enabling organizational culture affect organization learning, and utilization of organizational knowledge. The study further concludes that establishing formal knowledge management systems organizational learning. In the same regard knowledge management in relation to organizational
learning, knowledge management facilitates a learning culture, improves ways of working increases knowledge acquisition and utilization, encourages peer to peer learning, and enables skills transfer.

5.5 Recommendations

5.5.1 Recommendations for Improvement

5.5.1.1 Knowledge Management Process and Organization Learning
The study recommends that organizations need to put into consideration the various elements of knowledge management processes in order to enhance organization learning. It is important therefore for organizations to invest in knowledge creation, knowledge sharing and retention as well knowledge acquisition and application.

5.5.1.2 Knowledge Management Approach and Organization Learning
The study recommends the need for organizations to invest in technology in order to enhance organization learning. This is because technology has been a big contributor of both content creation and management, tools such as blogs are being used at organizational level to share knowledge and give the target market adequate information.

5.5.1.3 Knowledge Management and Organization Learning
The study recommends that organization should take knowledge management as one of the various elements that can help them leverage on competitive advantage. This can be achieved through creation of an independent knowledge management unit or department to spearhead this process.

5.5.2 Recommendations for Further Studies
The study recommends that researchers willing to pursue this area of interest can focus on this subject by looking at other sectors in the economy. Additionally a longitudinal study can also be done in the same area to see if there will be differences in the findings.
REFERENCES


Yousefi, Taherkhani, Ghardashkhani, (2014), Effect of Knowledge Management on Organizational Learning and Performance of Education Department of Abhar County. *International Journal of Manpower*. Vol. 31(8), pp. 848-870
Appendix I: Cover Letter

P.O. BOX 14634, 00800.
NAIROBI.

DATE:

Dear Respondent,

I am pleased to inform you that I am a graduate student at United States International University pursuing an Executive Master’s degree in Organization Development. As partial fulfilment of the course, I am conducting a research assessment implications of knowledge management on organization Learning.

This study focuses on your organization as a case study from which you have been selected as one of the lucky respondents. The result of this study will provide the management with the necessary information on adopting sustainable competitive advantages.

This is an academic research and confidentiality is strictly emphasized, your name will not appear anywhere in the report. Kindly spare a few minutes to complete the questionnaire attached.

Thank you in advance,

Yours Faithfully,

Sisia, L. Makokha
Appendix 2: Research Questionnaire

IMPLICATIONS OF KNOWLEDGE MANAGEMENT ON ORGANIZATIONAL LEARNING: A CASE OF IREX

The researcher is carrying out this research to analyze the implications of knowledge management on organizational learning. The questions require to be answered by indicating whether you are in total agreement or totally disagree on the scale of five provided.

1=totally agree 2=agree 3= not sure 4=disagree  5= totally Disagree

PART ONE: PERSONAL INFORMATION

1. Please indicate your gender below;

Gender □ M    F □

2. How long have worked for this project?
   1) Less than 1 year □
   2) 1 to 2 years  □
   3) More than 2 years  □

PART TWO: KNOWLEDGE MANAGEMENT PROCESSES

1. The organization has an established knowledge management systems? Please mark in the box your best option.

   1 strongly agree; 5 strongly disagree

   1   2   3   4   5

2. Indicate your agreement to the extent to which the below mentioned factors have contributed to organizational learning (1=strongly agree 5= strongly disagree)

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<td>Knowledge creation</td>
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<td>Knowledge sharing and retention</td>
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<td>Knowledge acquisition and application</td>
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<td>Knowledge transfer</td>
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56
PART THREE: KNOWLEDGE MANAGEMENT APPROACHES

3. On a scale of 1 to 5 (1= strongly agree 5= strongly disagree) how would you agree to the following statement: **my organization focuses and emphasizes on**

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<td>Communities of practice</td>
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<td>Documenting and sharing of best practices</td>
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<td>Documenting and sharing of lessons learnt</td>
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<td>Collaborative technology e.g. wiki’s, chats, emails, blogs etc.</td>
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<td>Use of technology for learning</td>
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<td>E-learning</td>
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<td>An enabling culture for learning and development</td>
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4. Are the knowledge management approaches in your organization effective in encouraging organizational learning? YES ☐ / NO ☐

PART FOUR: RELATIONSHIP BETWEEN KNOWLEDGE MANAGEMENT AND ORGANIZATIONAL LEARNING

5. How would you agree to the role played by the below knowledge management factors towards creation of organizational learning? 1= (strongly agree 5= strongly disagree)

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<tr>
<td>Availability of favorable processes and structures</td>
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<td>Availability of expertise in the organization</td>
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<td>An enabling organizational culture</td>
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<td>Availability of social processes that encourage learning</td>
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<td>Utilization of organizational knowledge</td>
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<td>Establishing formal knowledge management systems</td>
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6. Indicate the level of agreement with the following statements. Through Knowledge Management;

1= strongly agree 5= strongly disagree

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<th>Statement</th>
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<tbody>
<tr>
<td>I am able to know more about the organization</td>
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<td>I am able to understand my job responsibilities better</td>
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<td>I am able to achieve organizational goals better</td>
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<td>I am able to acquire and share information</td>
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<td>I am able to learn on the job</td>
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<td>Organizational processes are better understood</td>
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7. To what extent do you agree with the following statement on knowledge management in relation to organizational learning? Mark in the box the best that reflects your response.

1= (totally agree) to 5 (totally disagree)

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<tr>
<td>Facilitates a learning culture</td>
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<td>Improves ways of working</td>
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<td>Increases knowledge acquisition and utilization</td>
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<td>Encourages peer to peer learning</td>
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<td>Enables skills transfer</td>
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</table>

8. Please suggest ways of improving knowledge management in your organization?