KNOWLEDGE MANAGEMENT PRACTICES AND PERFORMANCE OF SMALL AND MEDIUM ENTERPRISES IN NAIROBI CITY COUNTY, KENYA

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ABSTRACT

SMEs are an important component of the economy, especially with regard to absorbing a large percentage of the workforce. Good performance of these entities is therefore critical so that they can continue with their economic contribution. However, despite county government efforts of Nairobi and the government of Kenya to promote SME activity, not much progress seems to have been achieved. The general objective of this study was to investigate the influence of knowledge management practices on the performance of small and medium enterprises in Nairobi City County. Specifically, the study seeks to: establish the influence knowledge creation on the performance of small and medium enterprises in Nairobi City County, determine the influence knowledge acquisition on the performance of small and medium enterprises in Nairobi City County, assess the influence of knowledge sharing/transfer on the performance of small and medium enterprises in Nairobi City County and to investigate the influence of knowledge implementation on the performance of small and medium enterprises in Nairobi City County. This study will be guided by Resource based view theory, Organizational learning theory and Knowledge based theory. The study was based on descriptive research design. The target population will be 532 SMEs firms in Nairobi City County. The sample size was 150 SMEs covering different sectors. The study will use questionnaires, containing both open ended and closed ended questions to obtain primary data. The research instrument was pretested with a sample of the respondents. Descriptive statistics including the means and standard deviations will be used to analyze the data and capture the characteristics of the variables under the study. Inferential statistics was used to test the nature and magnitude of the relationship between dependent and independent variables. Simple regression analysis and Pearson's correlations was computed to determine the nature and the strength of the relationship among the variables. The analyzed data was presented in form of tables and charts. The analyzed data was presented in form of tables and charts. The conclusions of this study were informed by the findings based on each study objective and also findings of other similar studies. The findings of the study revealed that knowledge creation, knowledge acquisition, knowledge sharing and knowledge implementation are positively related with performance of SMEs in Nairobi County. Knowledge creation, knowledge acquisition, knowledge sharing and knowledge implementation were found to be satisfactory variables in explaining performance of SMEs in Nairobi County as supported by coefficient of determination of 51.2%. This shows that knowledge creation, knowledge acquisition, knowledge sharing and knowledge implementation explained 5.2% of the performance of SMEs in Nairobi County. The results of ANOVA showed that the overall model was statistically significant. Further, the results imply that the independent variables are good predictors of performance of SMEs in Nairobi County. This was supported by an F statistic of 49.522. Finally, the overall model

indicated that knowledge creation, knowledge acquisition, knowledge sharing and knowledge implementation are positively and significantly related. Based on the findings the study concluded that knowledge creation, knowledge acquisition knowledge sharing and knowledge implementation affects performance of SMEs firms. The study recommends that SMEs in Nairobi County should adopt knowledge management strategy in running their business so that they can gain improved performance, knowledge management strategies to be adopted are: knowledge sharing, knowledge acquisition, knowledge creation and knowledge implementation. The study also recommends that the SMEs firms should invest on highly trained employees.

Key Words: *knowledge management practices, performance, small and medium enterprises, Nairobi City County, Kenya*

INTRODUCTION

Small and Medium enterprises have been noted to play a significant role in employment and economic growth of many countries (Liedholm & Mead, 1999). Indeed, in many developing countries as well as developed countries, small and medium enterprises are the focal point of growth and self-employment. In low-income countries, it is estimated that small and medium enterprises account for more than 60 per cent of the GDP and provide over 70 per cent of employment opportunities (Lukacs, 2005).

Knowledge can be considered as the most important strategic resource for ensuring an organization's long-term success and survival, because it is unique and difficult to imitate (Grant, 1996; Kogut & Zander, 1992). Moreover, it is strategically important for the management of technology and innovation. These facts have motivated researchers to center their studies on the internal aspects of businesses as being fundamental to their competitiveness, particularly those of an intangible nature which are linked to organizational knowledge (Nonaka & Takeuchi, 1995). The Knowledge management practices(KMS) of a firm is based on the best possible strategic design to create, maintain, transfer and apply organizational knowledge to reach competitive goals (Liebeskind, 1996).

The role of Small and Medium Enterprises in job creation and economic growth globally cannot be disputed. The small and medium sized sector is increasingly being recognized as the prime vehicle for economic development in both developed and developing nations (Zacharakis et al., 2002). It is a major source of employment, revenue generation, innovation and technological advancement. Therefore, SMEs have become a major asset in the economy. In most of the countries in the world, the level of economic dependence on small and medium enterprises has increased in recent years.

In Europe and the U.S. an estimated, 81% of the leading organizations are utilizing some form of knowledge management (Grossman, 2006). Consequently, the key question today is no longer whether to manage knowledge, but how to manage it (Lee & Choi, 2003). The contribution of Small and Medium Enterprises (SMEs) around the globe is unquestionable and especially in developing countries, where development in this sector is seen as a key strategy for economic growth, job generation and poverty reduction (Agupusi, 2007). According to Mutezo (2005), Japan's SME sector accounts for the bulk of the country's business establishment, proving vital support for employment, for regional economies and by extension for the day-to-day life of the Japanese people. In Taiwan the SME sector generates 98 percent of the economy's GDP.

In Malaysia, the concept of knowledge management (KM) began to be implemented in the late 1990s when multinational organizations like Microsoft and Hewlett-Packard brought their KM practices, processes and applications to the country. At the same time, the Malaysian government launched its Knowledge Economy Master Plan, which consisted of strategies for transforming Malaysia from a production-based economy to a knowledge-based economy. One strategy proposed in the plan called for the private sector to be the vanguard of the knowledge economy development. The Multimedia Development Corporation (MDeC), Siemens, Bank Negara Malaysia, Nokia Malaysia, and Telekom Malaysia were among the pioneers for the implementation of KM in the country.

In Sub Saharan Africa countries, the full potential of the SME sector has yet to be tapped due to the existence of a number of constraints hampering the development of the sector. SMEs in developing countries primarily face issues relating to business regulations and restrictions, finance, human resource capabilities and technological capabilities (Mwangiet al., 2013). Developing SMEs in developing countries is an important challenge. The main underlying constraints to their growth are lack of finance, lack of human resource capabilities and lack of technological capabilities (Visser, 2013).

In South Africa, the SME sector may be more important because of the country's history, which has left most people poor, and with no formal education or training Abor & Quartey (2010). Abor and Quartey point out the importance of SMEs in South Africa where it is estimated that 91% of the formal business entities are SMEs. They also contribute between 52 to 57% to GDP and provide about 61% of employment. In Kenya, classification of enterprises is primarily by the number of employees engaged by firms. "Micro-enterprises" in the Kenyan context are those with 10 or fewer workers. According to the Micro and Small Enterprise Act (2012), a Small Enterprise is a business that has sales of between Ksh.500,000 – Ksh.1million a year, or has 10–50 people working in it. Those firms that employ 50 to 99 workers are classified as medium-scale enterprises while firms with 100 or more workers are categorized as large-scale enterprises.

Kenya has about 1.6 million registered small and medium sized enterprises constituting about 96 per cent of all business enterprises in the country (Economic Survey, 2009). SMEs represent the

largest sector in the economy employing up to 83% Kenya's workforce and contributing up to 18.4% of the country's Gross Domestic Product (GDP) (Economic Survey, 2013). SMEs are therefore an important component of the economy, especially with regard to absorbing a large percentage of the workforce. Adoption of knowledge management practices to these entities is therefore critical so that they can continue with their economic contribution.

Performance of SMEs

Performance assessment in Small and Medium Enterprises (SMEs) is essential to maintain the business viability. Companies with small and medium scale describe their business development in modest performance. For example, achieving sales targets, return on capital, profit and growth performance. Generally, few studies measure SMEs performance to assess the sales level, profitability, sales growth and profit growth (Subroto, Husnah, Aisjah & Djumahir, 2013). One solution to overcome the problems affecting SMEs performance is through business management of Resource-Based. With these arrangements, company able to create a special competence (St-Pierre & Audet, 2011). Resources Based Value (RBV) theory suggests that resources and capabilities are basis to create a strategy.

Performance is a measure of an organization's financial condition or financial outcomes resulting from management decisions and carried out by organization members. The size of performance reflects the strategic decisions, operational and financing (Fening, 2012). The analogy, finance is the heart of corporate, business strategy planning must be balanced by financial planning strategy. Any decision or business opportunity that taken should be adjusted according to calculations, weather it really profitable company or not. Significant information in financial statements can be used to assess performance during a specific time (Camisón & Villar- López, 2010). It was concluded that performance is part of financial statements which indicates the position of resource companies during the period, and financial statements describing financial company performance's ability to generate revenue from its available resources.

SME performance measurement is done by comparing financial ratios. The goal is to see the weaknesses and strengths that have done an SME in running their business operations. Next time they will be able to make repairs and improvements in processing business in an attempt to obtain a good SME (healthy), a measure of perceived performance. Studies that measure SMEs performance generally consider revenue from sales, profitability, sales growth and profit growth (Fairoz, Hirobumi & Tanaka, 2010).

Knowledge Management Practices

KM is predominantly becoming an essential and significant component in business strategy (Iyer and Ravindran, 2009) since the value of workers and organisational data have become more critical to the organisation's outcomes and competitiveness. As postulated by Choong and Wong (2010), KM acts as a means by which the organisation's core competencies can be focused and

developed. Therefore, KM should not be viewed as just a management 'fad' since researchers like Chen and Hatzakis (2008) interpreted KM as layers of assortment that can be broken down into norms, practices and, technology that covers most of the aspect of enterprise's core business process in increasing organisational effectiveness.

KM processes: As elucidated by Gold et al. (2001), KM processes is a planned coordination for controlling knowledge in an effectively way. It is important for organisations to follow the steps of KM processes more effectively. To simplify the analysis of KM processes, this study consist of four processes: knowledge creation, knowledge transfer, knowledge sharing and knowledge implementation. Knowledge creation comprises of activities that are associated with the entry of new knowledge into the system, which includes knowledge development, discovery and capture. Hence, the creation of new knowledge in turn generates higher levels of innovative output, which is then manifested in maintaining business performance. The process of conversion involves creation of TK through informal sharing, moving from TK to explicit and enhancing explicit content by combining codified knowledge and using EK to create new TK through thinking and sharing. The most common method of knowledge transfer across companies in all industries is informal interactions between experts and practitioners through sustained mentoring or apprentice relationship, or through brief discussions by phone or video conference. Besides, transfer of knowledge requires an individual or a group to cooperate with each other to distribute knowledge and achieve mutual benefits (Syed-Ikhsan and Rowland, 2004).

Knowledge sharing is all about disseminating and making available what is already known (Tiwana, 2000). For that reason, knowledge sharing is critical to a firm's success as it leads to faster knowledge deployment to various segments of the organisation that can greatly benefit from it (Syed-Ikhsan and Rowland, 2004). Hence, with this in mind, many SMEs wish to share knowledge, as they view co-operation with consumers as vital and without a doubt beneficial. Lastly, knowledge utilisation includes activities and events connected with the application of knowledge to business processes. Research shows that knowledge utilisation in enterprises results from the mutually dependent influences of organisational processes, control opportunities and control problems that arise through organisational structure. The effective utilisation and application of knowledge are dependent on factors such as clear understanding of roles, opportunities in using it, a need to take action and an awareness of the benefits to be gained from its application (Wong & Aspinwall, 2004).

SMEs in Nairobi City County

Nairobi City County is one of the forty seven counties in Kenya. The Nairobi City County is the creation of the Constitution of Kenya 2010 and successor of the defunct City Council of Nairobi. It operates under the auspices of the Cities and Urban Areas Act, The Devolved Governments Act and a host of other Acts. Nairobi is largest and fastest growing cities in Africa. It is also Kenya's principal administrative, economic and cultural centre. Being the Kenyan capital, the

national baseline survey (National Baseline Survey, 2014) indicated that about 17% of the total SMEs are located in Nairobi. According to the licensing record provided by Nairobi county licensing office (2015) there 30252 registered SMEs in Nairobi County Government.

The SMEs have gained much popularity among many young entrepreneurs due to the low capital required to start them. The SMEs however have a high motility rate which limits their capacity to make long haul sustainable employment and may likewise be in charge of the best number of riches and occupation misfortunes (Ahwireng, 2003). This is achieved by the SMEs' part being famously unpredictable and encounters a high level of business conclusion and shrinkage (Baard and Van Den Berg, 2004) and subsequently the administration has been attempting endeavors in helping with the advancement of the SME divisions.

Small and medium enterprises (SMEs) are very important for employment creation and are important sources of economic growth (Tambunan, 2005). Nairobi City County is a county in the former North Eastern Province of Kenya. Its capital and largest town is Nairobi. The county has a population of 661,94 and an area of 55,840.6 km². Nairobi City County has only one local authority: Nairobi City County council. The county has four constituencies: Nairobi North, Nairobi West, Nairobi East and Nairobi South. Nairobi City County is divided into fourteen administrative divisions. The number of SMEs in Nairobi City County is not well established because of the locality (Economic Survey, 2015).

STATEMENT OF THE PROBLEM

Small and medium enterprises (SMEs) in Nairobi City County have been experiencing poor performance. The county is not well endowed with natural resources. Residents in urban areas tend to practice small and medium enterprises to meet their needs. However, most of these SMEs collapse after some time because of inadequate human capital, knowledge sharing and knowledge transfer. They SMEs owners lack better ways of managing and growing their businesses (Economic Survey, 2012). This is evidenced by World Bank (2014) which noted that many of the Jua Kali SMEs have collapsed in a span of 5 years. Kenya has about 1.6 million registered small and medium sized enterprises constituting about 96 per cent of all business enterprises in the country (Economic Survey, 2009). SMEs represent the largest sector in the economy employing up to 83% Kenya's workforce and contributing up to 18.4% of the country's Gross Domestic Product (GDP) (Economic Survey, 2013). SMEs are therefore an important component of the economy, especially with regard to absorbing a large percentage of the workforce. Good performance of these entities is therefore critical so that they can continue with their economic contribution. However, despite county government efforts of Nairobi and the government of Kenya to promote SME activity, not much progress seems to have been achieved, judging by the poor performance of the informal sector (Perry & Pendleton, 2009). Statistics indicate that while a majority of firms in Kenya are small and large, very few are midsized (Economic Survey, 2013). This is famously known as the missing middle. In addition,

the few midsized firms rarely transform to large firms. For an SME to graduate from being small, midsized to large size, a paradigm shift in knowledge management is required. The entrepreneurs of midsized firms may need to adopt a knowledge management practices that would break the obstacles that inhibit better performance. Marques and Simon (2006) conducted a study on biotechnology and telecommunication SMEs and found a positive relationship between knowledge development, transfer and protection processes with firm performance. This enhances a conceptual gap for the study. Chang and Chuang (2011) also noted that KM processes enhance firm performance in Taiwan manufacturing industries. This presents a geographical gap for this study. Mohrman et al. (2003) extended the concept of firm effectiveness measured by Gold et al. (2001) by including financial measures, and found a positive relationship between the extents to which firm creates and exploits knowledge with overall firm performances. This study therefore sought to fill the knowledge gap by establishing the effect of knowledge management practiceson the performance of small and medium enterprises in Nairobi City County, Kenya

GENERAL OBJECTIVE

The main objective of this study was to investigate the influence of knowledge management practices on the performance of small and medium enterprises in Nairobi City County, Kenya.

SPECIFIC OBJECTIVES

1. To establish the influence knowledge creation on the performance of small and medium enterprises in Nairobi City County, Kenya.
2. To determine the influence knowledge acquisition on the performance of small and medium enterprises in Nairobi City County, Kenya.
3. To assess the influence of knowledge sharing on the performance of small and medium enterprises in Nairobi City County, Kenya.
4. To investigate the influence of knowledge implementation on the performance of small and medium enterprises in Nairobi City County, Kenya.

THEORETICAL REVIEW

Resource Based views Theory

Resource Based views Theory originated from Penrose's idea (1959) of the firm as a coordinated 'bundle' of resources, tackles the question of a firm's goals and strategic behavior. According to resource-based views, firms perform well and create value when they implement strategies by exploiting their internal resources and capabilities. KM processes which include knowledge acquisition, conversion and application are used to manage and increase firm's internal resources and improve firm performance.

The knowledge-based views of the firm considers knowledge as the most strategically significant resource of the firm (Grant, 1996) and identify the primary role for the firm in the creation and application of knowledge (Bierly and Daly, 2002).This view considers firm as a 'distributed knowledge systems' composed of knowledge-holding employees, and believes firm's role is to co-ordinate these employees so that they can create knowledge and value for the firm (Spender, 1996). The rationale is that knowledge endows firms with various competencies and capabilities that account for firm performance and competitiveness in the market. Kogut and Zander (1992) suggested that for a firm to remain competitive, it must effectively and efficiently create, locate, capture and share knowledge and expertise in order to apply that knowledge to solve problems and exploit opportunities. Most of the research on the knowledge-based view is process-oriented.

Absorptive capacity is dependent on a firm's level of prior related knowledge. A firm's absorptive capacity could be enhanced through KM processes which allow the firm to acquire, convert and apply existing and new knowledge by adding value to internal resources, and at the same time sustain competitiveness in the market. Since this is resource based theory, the organization can efficiently with discipline utilize available resources a practice that can be replicated by the SMEs firms in Kenya to boost their performance. The resources marshaled by Small and Medium Enterprises in Kenya are small and so this theory is very important when budgeting for the available scarce resources.

Organization Learning Theory

Organization learning theory was developed by Scholars Nevis, DiBella, & Goulds' in 1995. Scholars Nevis, DiBella, & Goulds' defined organizational learning as reflecting the skills of creating, acquiring, and transferring knowledge and modifying behavior to reflect new knowledge and insights. Almost all of the published literature reviews on organizational learning agree on the notion that the process of organizational learning starts with acquiring and disseminating information.

Daft and Weick (1984) perceived the abilities of firms to interpret information as the main component of organizational learning. Such learning is said to occur when new knowledge is generated (Huber, 1991). This theory is applicable to our study as it emphasizes on the importance of knowledge to the development of SMEs in Kenya. These SMEs can share knowledge acquired through innovation, new methods of marketing increasing their customer base. Such initiatives increase SMEs' sales revenue.

Knowledge Based Theory

This theory was first coined by Grant in 1996. This theory supposes that knowledge management practices such as knowledge acquisition, knowledge storage, knowledge creation, knowledge sharing and knowledge implementation play a critical role in achieving high level productivity, financial and human resource performance and finally improving sustainable competitive

advantage (Soderberg & Holden, 2002). This theory helps significantly towards realizing the important role of knowledge management. This theory is applicable to our study since SMEs can share knowledge acquired through innovation, new methods of marketing increasing their customer base. Such initiatives increase SMEs' sales revenue.

EMPIRICAL REVIEW

Knowledge Creation and Performance

Gholami, Asli, Shirkouhi and Noruzy (2013) investigated the Influence of Knowledge Management Practices on Organizational Performance: An Empirical Study. The aim of the study was to investigate the influence of knowledge management practices on organizational performance in small and medium enterprises (SMEs) using structural equation modeling (SEM). A number of 282 senior managers from these enterprises were chosen using simple random sampling and the data were analyzed with the structural equation model. The results showed that knowledge acquisition, knowledge storage, knowledge creation, knowledge sharing, and knowledge implementation have significant factor loading on knowledge management; and also productivity, performance, staff performance, innovation, work relationships, and customer satisfaction have significant factor loading on organizational performance.

Hsu (2006) conducted a study on Analysis of Knowledge Creation and its Affecting Factors in the Asynchronous Web-based Learning System. The study by taking asynchronous web-base learning system as an example discussed the relationship of communication mode, e-learning websites design, and knowledge creation. The research design of this study aimed at a structure equation model to test the integrated effects of communication mode and e-learning websites design on knowledge creation. The study research utilized Path analysis to analyze the various variables affecting knowledge creation to see how they affect tactic and explicit knowledge creation. Further, the study used factor analysis method to extract the common factors in different categories in this questionnaire and find out the structural relationship between variables.

Considering the mediating effects on knowledge sharing, the study found that the direct effects of Teacher Involvement, Interaction between students and frequency on tacit knowledge creation were significantly positive. In particularly, Interaction between students had relatively negative indirect effects through tacit knowledge sharing. Finally, Website accessibility and usability had significant direct effect on tacit knowledge creation, and had indirect effects on both tacit and explicit knowledge creation through explicit knowledge sharing. In addition, Curriculum Professionalism was negative correlated with explicit knowledge sharing, and it only had indirect effects on knowledge creation.

Choe (2011) conducted a study on the taxonomy of knowledge management practices in manufacturing firms: Use of target costing and IT infrastructure. Based on the usage levels of

target costing systems (TCS) and information technology (IT) infrastructure, this study aimed at developing a framework useful for classifying four types of knowledge management (KM) strategies in manufacturing firms: explorative, exploitative, mixed and negative. They adopted a multi-methodological approach by mixing both qualitative and quantitative methods. Before developing a framework, through a mini-case study of the H Motor Company in Korea, the paper aimed to investigate the functions of TCS in the management of tacit knowledge. The mini-case study indicated that with the use of TCS, a firm can create, transfer and share diverse kinds of tacit knowledge among employees for the facilitation of process innovation.

Uhlaner, van Stel, Meijaard, Folkeringa (2007) conducted a study on the relationship between knowledge management, innovation and firm performance: evidence from Dutch SMEs. The article investigated the relationship between knowledge management (KM), innovation and firm performance of smaller firms (less than 100 employees), based on a panel of more than 400 Dutch firms. Regression analyses explain the variations in sales turnover growth from various measures of KM strategies. They distinguished between KM input, throughput and output (or innovation) strategies. They found that KM input strategies related to knowledge acquisition are positively related to sales turnover growth. In contrast, they did not find a relation between KM throughput and KM output (innovation) measures and firm performance. The results emphasized the importance of both knowledge absorption and knowledge creation to the success of innovative efforts in small firms.

Knowledge Acquisition and Performance

Gholami, Asli, Shirkouhi and Noruzy (2013) Investigated the Influence of Knowledge Management Practices on Organizational Performance: An Empirical Study. The aim of the study was to investigate the influence of knowledge management practices on organizational performance in small and medium enterprises (SMEs) using structural equation modeling (SEM). A number of 282 senior managers from these enterprises were chosen using simple random sampling and the data were analyzed with the structural equation model. The results showed that knowledge acquisition, knowledge storage, knowledge creation, knowledge sharing, and knowledge implementation have significant factor loading on knowledge management; and also productivity, performance, staff performance, innovation, work relationships, and customer satisfaction have significant factor loading on organizational performance.

Mahapa (2013) conducted a study on the Impact of Knowledge management practices on Organizational Performance in the Hospitality Industry of Zimbabwe. The research identified knowledge management practices and how they impact on organizational performance in the hospitality industry in Zimbabwe. The research made use of the Processes, Intellectual capital, Culture and Strategy (PICS) model which shows a substantial positive relationship between processes, intellectual capital, and knowledge acquisition and knowledge management. The research was based on case studies of 3 hotels in Zimbabwe. Structured interviews were used to

elicit information from managerial employees and questionnaires were administered to non-managerial employees. Stratified random sampling was used to select a total 50 participants mainly 15 managerial and 35 non-managerial staff in the research from all the hotels. The findings from this research revealed that the organisations have in place knowledge management practices and these lead to development of new ideas, new products and also new ways of doing things that will eventually lead to improve the organizational performance.

Daud (2012) conducted a study on Knowledge management processes in SMES and large firms: A comparative evaluation. The competitiveness of a firm depends on the quality of knowledge they apply to their business processes. Knowledge management (KM) processes are part of the firm business processes. These processes require turning personal knowledge into corporate knowledge that can be widely shared throughout a firm and appropriately applied. This study examines how SMEs and large firms apply KM processes in their daily business activities and analyse the influence of KM processes on their financial and non-performance.

KM processes comprise knowledge acquisition, conversion and application while firm performance is measured from financial and non-financial perspectives that consist of profit, growth, innovativeness, customer satisfaction, quality and flexibility. Survey questionnaires were distributed to managers at SMEs and large firms. Results showed that the effects of KM processes on financial and non-performance differ between SMEs and large firms. Findings from the survey could help these firms to enhance their financial and non-performance via appropriate KM processes.

Knowledge Sharing and Performance

Wanjiru and Gathenya (2015) conducted a study on the Role of Knowledge Management on Performance of Social Enterprises in Kenya: A Case Study of Nairobi City County. This study investigated the role of knowledge sharing on performance of social enterprises in Kenya. Ten social enterprises in Nairobi were selected for the study. A sample of 90 individuals was interviewed from the 10 organizations. Data was collected using questionnaires, interview guides and review organizations' document. Data was analyzed through quantitative and qualitative methods. Most social enterprises document share knowledge as indicated by 65% of the respondents who reported that their organizations had established ways of documenting and sharing knowledge.

Maroofi, Nayebi and dehghani (2013) conducted a study on Strategic Knowledge Management, innovation, sharing and Performance. Their aim was to spread knowledge involving a certain subject of the results of knowledge management (KM) strategies on firm's innovation and incorporated in performance. The sampling procedure was based on random sampling, with regards to firm size and activity sector. The study consisted of 195 Iranian organizations and structural equations modeling, results show that both KM strategies influences on innovation and

organizational performance directly and indirectly. Thus, one of the main final decisions of the research was that KM was found to have significant mechanism of increasing innovation and incorporated in performance.

Choe (2011) conducted a study on the taxonomy of knowledge management practices in manufacturing firms: Use of target costing and IT infrastructure. Based on the usage levels of target costing systems (TCS) and information technology (IT) infrastructure, this study aimed at developing a framework useful for classifying four types of knowledge management (KM) strategies in manufacturing firms: explorative, exploitative, mixed and negative. They adopted a multi-methodological approach by mixing both qualitative and quantitative methods. Before developing a framework, through a mini-case study of the H Motor Company in Korea, the paper aimed to investigate the functions of TCS in the management of tacit knowledge. The mini-case study indicated that with the use of TCS, a firm can create, transfer and share diverse kinds of tacit knowledge among employees for the facilitation of process innovation. They also empirically confirmed the four types of KM strategies, and demonstrated the characteristics (such as, size, total sales, age, and knowledge intensity) of the organizations adopting each strategy.

Knowledge Implementation and Performance

Kombo (2015) conducted a study on Knowledge Strategy, Innovation and implementation in Manufacturing Firms in Kenya. The objective of the study was to empirically examine the effect of knowledge strategy on organizational innovation. The study adopted cross-sectional survey research design. The target population comprised of 655 manufacturing firms in Kenya. The results show that knowledge strategy has a positive and significant effect on innovation activities of the firms. It is concluded that higher levels of knowledge strategy implementation would result in higher organizational innovation.

Gómez and Manzanares (2011) conducted a study on Knowledge management practices, Innovation and Firm Performance an Empirical Study. The study investigated, from the knowledge-based view of the firm, whether there are groups of firms with homogeneous behaviours, as regards to knowledge management practices. The results show important differences in the conception and implementation of KMS, and significant relationships between the performance of some firms and their efficiency in the transmission and application of existing knowledge.

Daud and Yusoff (2010) conducted a study on Knowledge Management and Firm Performance in SMEs: The Role of Social Capital as a Mediating Variable. The study examined knowledge management, social capital and firm performance through the use of a questionnaire directed to small- and medium-sized enterprises all of them situated within the Multimedia Super Corridor in the Klang Valley of Malaysia. The results based on 289 usable questionnaires demonstrated

that, knowledge management processes (creation, sharing, acquisition and implementation) influence social capital positively; social capital enhances firm performance; and social capital is a mediator between knowledge management processes and firm performance. The research demonstrated that knowledge management processes (creation, sharing, acquisition and implementation) and social capital can be integrated to enhance firm performance.

Javed (2013) conducted a study on the Importance of Knowledge Management and Factors that Influence and Encourage the Implementation of KM in SMEs. The purpose of this study was to investigate the importance of knowledge management and to identify the factors that influence and encourage the implementation of knowledge management in small and medium enterprises (SMEs). Qualitative design has been used in this research study to identify knowledge management factors that influence the knowledge management implementation in small organizations. A case study was used and data was collected through interviews from employees of kunjah online service provider. Properly utilizing these factors make a contribution towards organizational growth.

RESEARCH METHODOLOGY

Research Design

Descriptive design was used to conduct this study. This type of study attempts to define and describe a subject by creating a problem profile, events or population by collecting data and tabulating their frequencies or interaction, (Mugenda and Mugenda, 2009). The study was aimed at collecting data from respondents on their opinions in relation to the effect of knowledge management on performance of SMEs.

Population

The target population for this study comprised of SME's in Nairobi City County. In Kenya, classification of enterprises is primarily by the number of employees engaged by firms. The target population for the study was 532 SMEs in Nairobi City County. The respondents were the managers and owners of the SMEs. The managers were selected for the study because they have a clear and consistent understanding of the SMEs operations which implies that the results can be generalized without a lot of errors. The population included education, ICT, construction, engineering, health, manufacturing, retail, hospitality, energy, financial, automotive, real estates, services and logistics in Nairobi City County.

Sampling Design

The sampling plan describes the sampling unit, sampling frame, sampling procedures and the sample size for the study. According to Mugenda and Mugenda (2003) a sample of 30% is good

enough to represent a target population. From the above population of 532 the researcher will have a sample of 30% using stratified random sample, hence a sample size of 150 respondents.

Data Collection Instruments and Procedure

Burns and Grove (2003) define data collection as the precise, systematic gathering of information relevant to the research sub-problems, using methods such as interviews, participant observations, focus group discussion, narratives and case histories. The study used primary data. Primary data refers to information that a researcher gathers from the field Kothari (2008).

Primary data was obtained from the original sources using questionnaires. The questionnaires will be administered through drop and pick method to the respondents working in the selected SMEs. The researcher informed the respondents that the instruments being administered will be for research purpose only and the response from the respondents will be kept confidential. The researcher obtained an introductory letter from the University in order to collect data from the field and then personally deliver the questionnaires to the respondents so that they can be filled in and then collect the questionnaires later. The drop and pick later method was used in the study.

Data Analysis and Presentation

After quantitative data was obtained through questionnaires, it was prepared in readiness for analysis by editing, handling blank responses, coding, categorizing and keyed into statistical package for social sciences (SPSS) version 20.0 for analysis. The statistics generated was descriptive statistics and inferential statistics. The specific descriptive statistics include percentages and frequencies while the inferential statistics include a multiple linear regression model. Descriptive statistics including the means and standard deviations will used to analyze the data and capture the characteristics of the variables under the study. Inferential statistics was used to test the nature and magnitude of the relationship between dependent and independent variables. Simple regression analysis and Pearson's correlations was computed to determine the nature and the strength of the relationship among the variables. The multiple linear regression models was used to measure the relationship between the independent variables and the dependent variable which are explained in the model.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e$$

Where: Y = Performance of SMEs; X_1 = Knowledge creation; X_2 = Knowledge acquisition; X_3 = Knowledge sharing; X_4 = Knowledge implementation

In the model *a* is the constant term while the coefficient β_1 to $\beta 4$ are used to measure the sensitivity of the dependent variable (Y) to unit change in the independent variable (X_1, X_2,

$X_{3,}X_{4,}$). ε is the error term which captures the unexplained variations in the model. The results will be presented in form of tables and pie charts.

RESEARCH RESULTS

The purpose of this study was to investigate the influence of knowledge management strategy on the performance of small and medium enterprises in Nairobi County, Kenya. The study objectives were; establish the influence knowledge creation on the performance of small and medium enterprises in Nairobi County, determine the influence knowledge acquisition on the performance of small and medium enterprises in Nairobi County, assess the influence of knowledge sharing on the performance of small and medium enterprises in Nairobi County and to investigate the influence of knowledge implementation on the performance of small and medium enterprises in Nairobi County.

The first objective was to establish the influence of knowledge creation on the performance of small and medium enterprises in Nairobi County (r=0.314, p=0. 000). Regression of coefficients results showed that knowledge creation and SMEs performance were positively and significantly related.

The second objective was to determine the effect of knowledge acquisition on the performance of small and medium enterprises in Nairobi County. Result findings revealed that that knowledge acquisition was positively related with performance of small and medium enterprises in Nairobi County (r=0.320, p=0.000). Regression of coefficients results also showed knowledge acquisition on the performance of small and medium enterprises in Nairobi County were positively and significantly related.

The third objective was to understand the influence of knowledge sharing/transfer on the performance of small and medium enterprises in Nairobi County (r=0.254, p=0.000). Regression of coefficients results also showed that knowledge sharing and performance of small and medium enterprises in Nairobi County were positively and significantly related.

The fourth objective was to establish the influence of knowledge implementation on the performance of small and medium enterprises in Nairobi County(r=0.182, p=0.000) Regression of coefficients results also showed that knowledge implementation and performance of small and medium enterprises in Nairobi County were positively and significantly related.

INFERENTIAL STATISTICS

The study sought to establish the association among the study variables. The results are as presented in Table 1.

Table 1: Correlation Matrix

		Performance	Knowledge creation	Knowledge acquisition	Knowledge sharing	Knowledge implementation
Performance	Pearson Correlation	1	.450**	.559**	.438**	.421**
	Sig. (2-tailed)		0.000	0.000	0.000	0.000
Knowledge creation	Pearson Correlation	.450**	1	.274**	.165*	.162*
	Sig. (2-tailed)	0.000		0.000	0.022	0.024
Knowledge acquisition	Pearson Correlation	.559**	.274**	1	.273**	.376**
	Sig. (2-tailed)	0.000	0.000		0.000	0.000
Knowledge sharing	Pearson Correlation	.438**	.165*	.273**	1	.206**
	Sig. (2-tailed)	0.000	0.022	0.000		0.004
Knowledge implementation	Pearson Correlation	.421**	.162*	.376**	.206**	1
	Sig. (2-tailed)	0.000	0.024	0.000	0.004	

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

The results in Table 1 indicated that knowledge creation, knowledge acquisition, knowledge sharing and knowledge implementation are positively related with performance of SMEs in Nairobi County. Results indicated that knowledge creation (r= .450, p=0.000), knowledge acquisition (.559, p=0.000), knowledge sharing (r= .438, p=0.000) and knowledge implementation (r= .421, p=0.000) are significantly and positively related to performance of SMEs in Nairobi County. An increase in either of the above variable leads to increased performance of SMEs. The results agree with that study of Hsu (2006) conducted a study on analysis of knowledge creation which established that knowledge creation affects the performance of Web-based Learning System. The results also agree with that of Gholami, Asli, Nazari-Shirkouhi and Noruzy (2013) that knowledge acquisition, knowledge storage, knowledge creation, knowledge sharing, and knowledge implementation have significant factor loading on knowledge management; and also productivity, performance, staff performance, innovation, work relationships, and customer satisfaction have significant factor loading on organizational performance. The results are also in agreement with the study by Pai and Chang (2013) that Knowledge sharing and absorption are required to achieve and sustain competitive advantage. The results also agree with that of Akpotu and Lebari (2014) who examined the relationship between knowledge acquisition practices and performance of administrative employees in educational institutions in South Nigeria and found a significant relationship between knowledge acquisition and administrative employee performance.

The results presented in table 4.7 presented the fitness of model used of the regression model in explaining the study phenomena. Knowledge creation, knowledge acquisition, knowledge sharing and knowledge implementation were found to be satisfactory variables in explaining performance of SMEs in Nairobi County. This is supported by coefficient of determination also known as the R square of 51.2%.

Table 2: Model Summary

Indicator	Coefficient
R	0.715
R Square	0.512

This means that knowledge creation, knowledge acquisition, knowledge sharing and knowledge implementation explains 51.2% of the variations in the dependent variable which is performance of SMEs in Nairobi County. This means that we have other factors which affect performance of SMEs which are not included in the model. The results further indicate that the model applied to link the relationship of the variables was satisfactory. The study agree with Ghalomi et al. (2012) who examined 282 senior managers of SMEs using SEM analysis and found that knowledge acquisition, storage, creation, sharing, and implementation are positively related to organizational performance. The study also congers with that of Wanjiru and Gathenya (2015) who conducted a study on the Role of Knowledge Management on Performance of Social Enterprises in Kenya and found that documenting and sharing knowledge was important for the bank.

Table 3 provides the results on the analysis of the variance (ANOVA). This was to establish whether there was any significant difference among the variables means. Independent variables were explored to determine whether their existed any significance difference with the dependent variable (performance of SMEs in Nairobi County).

Table 3: Analysis of Variance

Indicator	Sum of Squares	df	Mean Square	F	Sig.
Regression	46.285	4	11.571	49.522	.000
Residual	44.161	189	0.234		
Total	90.446	193			

The results indicate that the overall model was statistically significant. Further, the results imply that the independent variables are good predictors of performance of SMEs in Nairobi County. The results agree with that of Al-Qarioti (2015) that Knowledge management components are highly related to organizational performance. The results also conger with that of Valmohammadi and Ahmadi's study (2015) who examined the impact of knowledge management practices on organizational performance and found that KM practices positively

and meaningfully impact overall organizational performance. This was supported by an F statistic of 49.522 and the reported p value (0.000) which was less than the conventional 0.05 significance level. Therefore, the result findings from the ANOVA showed that there exist a significant difference between the independent variables and the dependent variable.

Regression of coefficients results in table 4 shows that knowledge creation, knowledge acquisition, knowledge sharing and knowledge implementation are positively and significantly related. Knowledge creation (r=0.314, p=0. 000), knowledge acquisition and performance of SMEs are also significantly related (r=0.320, p=0.000). The table further indicates that Knowledge sharing and performance of SMEs are positively and significantly related (r=0.254, p=0.000), knowledge implementation and performance of SMEs are also positive and significantly related (r=0.182, p=0.000). Song (2008) showed that knowledge creation practices were significantly related to organizational improvement.

Table 4: Regressions of Coefficients

Variable	B	Std. Error	Beta	t	Sig.
(Constant)	-0.312	0.244		-1.281	0.202
Knowledge creation	0.314	0.059	0.284	5.331	0.000
Knowledge acquisition	0.320	0.055	0.337	5.867	0.000
Knowledge sharing	0.254	0.052	0.26	4.859	0.000
Knowledge implementation	0.182	0.052	0.195	3.518	0.001

Thus, the optimal model for the study is:

Performance of SMEs in Nairobi County = -.312+ 0.314Knowledge creation+ 0.320 Knowledge acquisition +0.254 Knowledge sharing+0.182 Knowledge implementation

This overall model shows that knowledge creation will increase performance of SMEs by 0.314 units. Knowledge acquisition will increase the performance of SMEs in Nairobi County by 0.320 units; knowledge sharing will increase performance of SMEs by 0.254 units while knowledge implementation will increase performance of SMEs in Nairobi County by .182 units. Finally, the negative constant (-.312) represents other factors which can reduce the performance of SMEs which are not included in the model. Effective customer KM greatly assists organizations to build sound customer relationships that will significantly impact on customer satisfaction and overall performance (Abdullateef et al., 2010). The study also congers with that of Ahmed, Fiaz and Shoaib (2015) that knowledge management activities that encompases knowledge acquisition, knowledge conversion, knowledge application and knowledge protection results in provision of quality services to customers, high customer satisfaction, efficiency in resource utilization, more profits and overall improved organizational performance. The results also conger with Omotayo (2015) that creating, managing, sharing and utilizing knowledge effectively is vital for organisations to take full advantage of the value of knowledge. However,

the study by Uhlaner, van Stel, Meijaard and Folkeringa (2007) did not agree with these findings who did not find any relation between KM and firm performance.

CONCLUSIONS

The conclusions of this study were informed by the findings based on each study objective and also findings of other similar studies. Each objective was reviewed and a conclusion provided which covers both theory and practice. The purpose of this study was to investigate the influence of knowledge management strategy on the performance of small and medium enterprises in Nairobi County, Kenya.

It is clear that organizations in their pursuit for sustainable competitive advantage must develop and incorporate sound KM strategy. Knowledge as one of the most critical resource of all corporate organizations needs to be properly managed to survive in the intensely competitive business environment. Globally, every organization irrespective of whether private or public are established to attain some performance targets for instance profit or non-profit. One of the ways through which organizations could improve their performance goals is through KM practices. For KM programs to be effective organizational performance must be improved. The SMEs sector today, is one of the most significant backbone of most economies and needs knowledge and innovation. Hence, to perform organizations need to identify and manage new and potential knowledge availing the business community.

The first objective was to establish the effect of knowledge creation on the performance of small and medium enterprises in Nairobi County, Kenya. Based on the findings the study concluded that knowledge creation affects performance SMEs. Knowledge creation involves the utilization of internal and external resources of an organization to generate new knowledge for achieving the organizational goals. Brainstorming methods and conducting research to make the best use of the knowledge assets of customers, suppliers and staffs are strategies applied in many prosperous SMEs for creating knowledge.

The second objective was to determine the effect of knowledge acquisition on the performance of small and medium enterprises in Nairobi County. Based on the findings the study concluded that knowledge acquisition affects performance SMEs. Knowledge acquisition encompass the process of acquiring and learning appropriate knowledge from various internal and external resources, such as experiences, experts, relevant documents, plans and so forth. Interviewing, laddering, process mapping, concept mapping, observing, educating and training are the most familiar techniques for knowledge acquisition.

The third objective was to understand the effect of knowledge on the performance of small and medium enterprises in Nairobi County on the findings the study concluded that knowledge sharing affects financial performance of small and medium enterprises in Nairobi County. This

is because information shared is used for business growth and development. Knowledge sharing is a process through which personal and organizational knowledge is exchanged. In the other words, knowledge sharing refers to the process by which knowledge is conveyed from one person to another, from persons to groups, or from one organization to other organization.

The fourth objective was to determine the effects of knowledge implementation on the performance of small and medium enterprises in Nairobi County. Based on the findings the study concluded that knowledge implementation affects performance SMEs. This means the application of knowledge and the use of the existing knowledge for decision-making, improving performance and achieving goals. Organizational knowledge should be implemented in the services, processes and products of the organization.

RECOMMENDATIONS

The study recommends that SMEs in Nairobi County should adopt knowledge management strategy in running their business so that they can gain improved performance, knowledge management strategies to be adopted are: knowledge sharing, knowledge acquisition, knowledge creation and knowledge implementation. When knowledge is recognized, acquired, and stored, SMEs can implement this knowledge to explore problems and create solutions, producing a structure for facilitating efficiency and effectiveness. In the modern dynamic and complex environment, SMEs need to acquire, create, share, save and implement new knowledge in order to make strategic decisions that can lead to improvements in productivity, financial and staff performance, innovation, work relationships, and customer satisfaction. Thus, SME managers should be committed to providing a supportive climate and culture, one that motivates employees and supervisors to implement the mentioned KM practices, in order to foster the SMEs results.

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