KNOWLEDGE MANAGEMENT CAPABILITIES AND ORGANIZATION PERFORMANCE IN MILLING COMPANIES: A CASE OF UNGA GROUP LIMITED

A PROJECT SUBMITTED TO THE SCHOOL OF BUSINESS IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF DEGREE OF MASTER OF BUSINESS ADMINISTRATION (HUMAN RRESOURCE MANAGEMENT) OF KENYATTA UNIVERSITY

MAY, 2021

DECLARATION

The research presented herein is maiden work from me which has not been submitted elsewhere for similar academic honors.

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D53/OL/CTY/32697/2016

This proposal is presented for examination with my approval as the supervisor for the university:

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DEDICATION

I dedicate this project to my colleague Catherine Kuria due to her understanding as well as encouragement during my study and research period.

ACKNOWLEDGEMENTS

I am thankful to God for bringing me this far. Many thanks to all the academic staff who presented the MBA programme at Kenyatta University School of Business. Special appreciation to my supervisor Dr. Lawrence Wainaina for his patience and exemplary guidance in writing the project.

To all the participants who contributed willingly and enthusiastically to my research process for their invaluable input and suggestions that enhanced quality of my project. All MBA classmates who offered mutual support, encouragement, and many laughs throughout the journey over the past two years that have enabled the successful completion of my project. I would like to thank my family and friends for their support.

Thank you.

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ABBREVIATIONS AND ACRONYMS

KM	Knowledge Management
KMC	Knowledge Management Capabilities
KMIC	Knowledge Management Infrastructure Capabilities
KMP	Knowledge Management Process
KMPC	Knowledge Management Process Capabilities
NACOSTI	National Commission for Science, Technology and Innovation
OL	National Commission for Science, Technology and Innovation
RBV	Resource Based View

OPERATIONAL DEFINITION OF TERMS

Knowledge	is an understanding or awareness about something such as facts, information through learning that results to expert insight that provides a framework for evaluating and incorporating new experiences and information
Knowledge Management	process of identifying, capturing, evaluating and sharing of information assets such as databases, documents, policies and procedures in the organization
Knowledge Management Capabilities	Ability to mobilize and deploy KM-based resources in combination with other resources and capabilities, leading to sustainable competitive advantage. It consists of knowledge management infrastructure capability (KMIC) and knowledge management process capability (KMPC)
Top Management Commitment	Management leadership responsibility of building trust in employees on how knowledge management benefits them and organization.
Organizational Performance:	Accomplishment or fulfillment of an obligation against preset known standards and goals. It involves creation of wealth or value to the organization
Knowledge Management Process Capability	The creation, acquisition, storage, transfer and application of knowledge.
Knowledge Management Infrastructure Capability	Consists of key elements (structural, technology and cultural) that facilitate knowledge management undertakings and creation of competitive advantage for the organization.

ABSTRACT

Knowledge management is crucial for dynamic modern organizations that are striving to achieve their goals and objectives as well as build competitive edge over their rivals. Some studies have been done on knowledge management capabilities in universities, non-governmental organizations, public sector and manufacturing industries. Some have studied the manner in which the private and public sectors carry out knowledge management practices. However, there is limited literature and empirical evidence that exist on the impact of Knowledge Management Capabilities on performance of an organizational in milling industries. The goal of the study was to investigate the impact of knowledge management processes (knowledge acquisition, application, transfer, and protection), knowledge management infrastructure (technology, structure, and culture) and top level management commitment to knowledge management practices (strategic planning, training, and compensation and rewards) on performance of Unga Group Limited. The study focused on milling industry with key reference to Unga Group Limited, a company quoted in the Nairobi Stock Exchange. Deming's theory, resource-based view, organizational learning theory, and organizational capability theory provided the theoretical bases for the study. The target population was made up of 140 top and middle level managers. Descriptive research design was used, with primary data being collected via questionnaires from 81 respondents and analyzed using SPSS version 21. The sample was determined using stratified random sampling to get a sample of 104 top and middle level managers. The response rate was 81 translating to 77.9%. Study results indicate strong positive correlation linking knowledge management processes and organizational performance, positive correlation between knowledge management infrastructure and performance, and positive correlation linking top management commitment to knowledge management practices and organizational performance. In multiple regression results, the value of adjusted R^2 was 0.272 at a confidence level of 95% implying that 27.2% of the variations in performance at Unga Limited were attributable to KM processes, KM infrastructure, and top management commitment to KM practices. Therefore, the study recommends that policy makers in knowledge-intensive organizations to formulate knowledge management policies and practices highlighting how implementing knowledge resources can affect organizational performance and build a competitive edge. Given that the study focused in Unga Group Limited only, the findings may not apply to all milling companies. The researcher advocates that a study be pursued to incorporate other milling companies to allow for broader generalization of the results.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Organizational performance can be defined as `a set of financial and non-financial indicators which present information on the extent of achievement of goals and objectives' (Lebans & Euske, 2006). For an organization to continuously improve its performance level there is a need for leadership team to identify the needs of the organization and set well defined aims to be achieved, monitor and evaluate progress on achievement of its aims as well as continuously make adjustments when needed. This helps in ensuring that all functional units within the enterprise are well fused for optimum achievement of aims. The recent trend of defining organizational performance is based on the qualitative and quantitative approach which is not sufficient in modern economy. Therefore, other measures such as KM have to be considered to view the wider perspective of company performance.

In a highly competitive business environment, diversity in the workforce, globalization, business change, and pressure to meet multiple consumer demands, it has become increasingly necessary for companies to generate, share, and use knowledge to retain relevance in business environment. Knowledge Management (KM) has become significant in the contemporary knowledge economy since it is an essential part of a firm's output especially in high technology products. In the opinion of Kovacic et al., (2006), knowledge is an intellectual asset or market good. Mills and Smith (2011) assert that knowledge is an essential input of production as others including capital, brand, and properties and a determinant of and organizational success.

Knowledge is hard to duplicate unlike other types of intellectual assets such as copyrights and patents, internal human knowledge. As such, valuable knowledge that is etched in employees' minds can be lost should the employees move out of the organization. With that in mind, transforming individual knowledge into organizational knowledge is one of the key prerogatives of an organization's leadership (Kovacic et al., 2006). Managers and proprietors have recognized knowledge as a crucial resource and a fundamental element in organizational performance and success since it exists in a highly technologically interconnected environment. Therefore, there is a paradigm shift in the managerial focus towards effective management of knowledge, its creation, codification, usage, and transference. KM has become a tool that an organization's management uses in the effective transformation of individual knowledge into organizational knowledge to obtain a competitive advantage and organization success.

KM has become a strategic advantage to firms seeking to remain relevant under the growing business complexities and globalization. The unique and intangible nature of knowledge makes it a source of sustainable and competitive edge (Davenport, 1998). There is a need for firms to have sufficient capabilities to manage knowledge and obtain positive outcomes has resulted to substantial theoretical and empirical research. Knowledge as a resource requires coordination and interaction with a number of resources like human capital as well as physical resources to produce a capacity. Thus, the capacity for two or more resources to execute tasks is a capability, which can result into a sustainable organizational strategy (Davenport, 1998). The control and management of these capabilities permits an organization to boost its efficiency performance and achieve a competitive edge.

Knowledge-oriented business has become a fundamental goal in the strategic plan of different companies in the globe. To achieve a knowledge oriented business, application of knowledge is necessary to enhance capacity of different industries' production. Management researchers have attempted to therefore present relevant resolutions to enable firms apply knowledge management. The Organization for Economic Co-operation and Development (OECD) delves at how knowledge enhances economic developments in third millennium (Heisig, Suraj, Kianto, Kemboi, Perez Arrau, & Fathi Easa, 2016). According to Davenport (1998), knowledge has become the most invaluable and fundamental competitive asset in the companies. Therefore, implementation of KM has been witnessed in different organizations. The present study sought to investigate how top management commitment, knowledge management infrastructure capabilities, knowledge management process capabilities, relates with organizational performance.

1.1.1 Knowledge Management Capabilities

Knowledge Management Capabilities is the company's ability to leverage new as well as present knowledge to generate new knowledge by constant training. Gold, Malhotra, and Segars (2001) advanced a KMC model from the organizational capability perspective. The model has two aspects of a firm's KMC namely knowledge management process capabilities (KMPC) and knowledge management infrastructure Capabilities (KMIC).

The factors that make up KMPC include acquisition, application, transfer, and protection (O'Dell & Grayson, 1999.) Knowledge acquisition is the extent to which a firm creates or advances knowledge resources across different operational aspects. Innovation, benchmarking, feedback, brainstorming and interaction are some of the activities that promote knowledge acquisition.

Knowledge application refers to processes and activities in which firms applies its acquired knowledge for value creation in an organization to further innovation and development new products. Knowledge transfer is the process of converting acquired knowledge from both external and internal resources into organizational knowledge to be effectively employed. Knowledge protection is critical for control and performance in a firm and this involves using patents and copyrights along IT systems that give discretionary access to knowledge using passwords, usernames and access protocols (Lee & Yang, 2000).

The organizational factors that make up KMIC are structure, culture, and technology (Gold et al., 2001). Technology in knowledge infrastructure includes the IT systems that facilitate integration of knowledge and information in an entity and those that support an organization in creating, transferring, storing and protecting the knowledge resources of an organization (Webb & Schlemmer, 2006). Organization structure refers to the reporting relationships, rules, regulations and hierarchy and it facilitates the control and coordination of organizational activities (Herath, 2007). Culture is ideas, customs and social behaviors that affect KM activities in an organization. As such, a favorable knowledge culture is considered as one of the main factors that influence knowledge management, its application and end results.

KMC has been regarded as a necessity in enabling organizations to stay as a going concern in the current dynamic market environment (Barba-Sanchez & Atienza-Sahuquillo, 2010). Organizations have endeavored to achieve competitive advantage by exploiting their distinctive intellectual assets in the creation of knowledge, which places the firm in strategic domains in the market with regard to their competitors. Firms measure present knowledge to realize the value of fresh insights and ideas, adopt the ideas, and exploit them to create new knowledge and enhance the firm's competitiveness. Effective KMC requires the inter-associations between the

acquisition, transfer, creation, documentation, and application of knowledge to be well understood (Lee, Lee, & Kang, 2005). Organizations with higher KMC enjoy a learning effect that improves their performance by minimizing redundancy, enabling rapid response to changes, and enhancing creativity and innovation (Gold et al., 2001). The effectiveness with which a firm acquires, shares, and applies knowledge among individuals and teams critically influences the standard of the resolution making process and its performance.

Heisig et al. (2016) asserts that KMC has made a great impact in improving the performance of organizations because organizations that can efficiently capture embedded knowledge in their operations and production process have a competitive, cost and performance edge over their competitors (Chuang, 2004) In addition, knowledge generates increased returns in a manner that knowledge assets increase with usage. Companies that manage knowledge effectively and integrate it with missions and strategies have positive outcomes in their performance (Davenport, 1998). Development of organization capabilities enhance the management of knowledge in organizations resulting in sustainable advantage and improved efficiency.

KMC has a constructive influence on the performance of a firm. The successful implementation of KMC is of strategic importance to the success of a business entity (Mills & Smith 2011). Alavi and Leidner (2001) affirm that KMC demonstrates the preparedness of an organization in identifying, developing, and leveraging its knowledge resources. KMC is handy in assisting business entities to be more responsive to market disruptions, promote innovation, and minimize the duplication and loss of information within and from an organization to achieve better performance (Liao & Wu, 2009). Chuang (2004) argues that KMC is what allows firms to utilize KM-based resources alongside other organizational resources and capabilities. Kiessling, Richey, Meng, and Dabic (2009) assert that the introduction of knowledge management methodologies in

a firm positively affects its performance, and this is an effect that has been often cited by other researchers in the field of organization behavior.

Top management commitment is fundamental in aiding the alignment of knowledge management practices with well-established plan of action or else they would not happen as expected. Factors of top management commitment that have been considered under this study are; strategic planning, training, compensation and reward. Strategic planning is an organizational management activity that is used to set priorities, focus energy and resources, ensure that employees and other stakeholders are working towards a common goal and establishes harmony around intended goals. Training involves a planned and systematic modification of behavior through learning events, activities and programs which result in the participants achieving the levels of knowledge, skills, competencies and abilities to carry out their work effectively. To effectively implement Knowledge management there is need to establish the right stimulus and rewards to motivate employees to share and contribute to the knowledge base. The stimulus system must distinctly state expectations from each employee and the benefits of knowledge sharing.

1.1.2 Organizational Performance

Organizational performance is a concept that broadly deals with attainment of an organization's targets using both financial and non-financial indicators (Lebans & Euske, 2006). In essence, organizational performance entails processes by which an organization achieves its goals and meets its obligations (Helfat & Winter, 2011). Organizational performance also deals with the achievement of an organization in relation to its competitors. Notably, while financial performance is the most common way of evaluating the performance of an organization,

organizational performance is also analyzed from other perspectives such as customer service, value creation, operating efficiency and organizational learning capability. Organizational performance is viewed from the perspectives of managerial, market performance of products and financial outcomes which are evaluated using market and accounting-based measures. As such, organizational performance or effectiveness is used as a dependent variable in existing scholarly work on knowledge management. Organizational performance also involves comparison between actual output and intended output both in subjective and objective measures. Some ways of evaluating organizational performance include customer satisfaction, patents and copyrights, and product or service innovations.

Studies conducted on how KMC impact organizational performance primarily focus on financial aspects of profit and cost and disregard non-financial aspects of performance such as work time reduction, development of new products, operational cost efficiencies, and how well a firm attracts, develops, and retains vital human assets (Zheng, Yang, & McLean, 2010). Given that the various facets of organizational production are impacted by KMCs, knowledge management network should evaluate performance using both financial and non-financial approaches. Lopez, Peon, and Ordas (2005) proposed a model that uses financial and non-financial measures of performance. Non-financial measures of accomplishment were employed analyze the impact of KMCs on organizational accomplishment. In this study organizational performance was measured through innovation (new products), customer satisfaction (through customer retention) and increased efficiency (increased sales volume).

1.1.3 Milling Industry

Milling industry is regarded as one of the sectors under manufacturing industry expected to propel the economy by a growth rate of 10 percent as per the vision 2030. Milling is a component of Food industry in Kenya which supports the country's social development plan through job creation, generation of foreign exchange earnings through exports and foreign direct investment. The milling industry has experienced massive growth as it endeavors to meet the needs of a growing population, changes in tastes, preferences, and consumer behavior. The government of Kenya regards the food industry as imperative in reducing the high incidences of unemployment and poverty (Source). To meet the targets, the sector needs to be managed effectively by increasing the productivity per unit of input to compete with the country's external rivals. One of the strategies is through building knowledge and innovation through training and research.

Knowledge supports innovation by promoting wealth creation and improved social welfare. The food industry has been mapped as a critical productive sector under Vision 2030 due to job creation and poverty eradication (Manufacturing Survey, 2012). The economy of Kenya is largely dependent on Agriculture. Goods produced from the farms such as wheat and maize are sold to food companies for value addition before they are consumed making the food industry the most technology intensive in the manufacturing sector. Due to the recent focus on healthy eating, milling companies have become more efficiency-driven by raising productivity, promoting research and development, and adapting new technology. Currently, there are 66 milling companies in Kenya (KRA Website, 2018).

1.1.4 Unga Group Limited

Maize flour is the most consumed staple food in Kenya (Staple Foods Value Chain Analysis Report – USAID). Unga Group Limited is one of the oldest companies in Kenya and the largest grain miller in Kenya (Kalya, 2013). Unga Limited was founded in 1908 and the first mill introduced in 1909 in Rift valley region. Its production facilities are based in major towns such as Nakuru, Eldoret, Nairobi, Kampala and Dar-es-salam. Unga Group Limited has three subsidiaries namely Unga Farm Care Limited, Unga Limited, and Unga Millers Limited. According to the Unga Group Limited website (2018), the company derives ninety percent of its revenue from the Kenyan market while the remaining revenue comes from Uganda, Tanzania, and Rwanda.

Currently, Unga Group Limited is the only miller listed in Nairobi securities exchange and produces large scale products such as commercial porridge production, animal feeds, maize and wheat. In addition, the company produces and sells cereals through its brand known as Amana. This study will be conducted at Unga Group limited because being the largest miller; the outcome of the research can be applied to other milling companies in the industry.

1.2 Problem Statement

The creation and proper use of knowledge enhances sustainable competitive edge (Zheng, 2005). Milling companies are among the most knowledge intensive businesses considering the input of knowledge, consumer demand for quality products, high production value, and brief product life cycles (Kalya, 2013). Researchers assert that knowledge is a valuable asset found in the mind of the employees. Transforming leveraging of the knowledge from mind into intellectual asset is necessary for an organization to remain relevant in the competitive environment. The ability to

transform productively the employee knowledge into functional information is enhanced by KMC. Research has revealed that KMC is a critical component in enhancing knowledge sharing, attainment and preservation.

Unga Limited has been facing stiff competition from other milling companies. A look at Nairobi Securities Exchange website indicates that Unga Limited had a stock dip in 2015, 2016 and 2018 respectively. In October 2019, Unga Limited share was trading at kshs 34.50 with a dividend of 0.5 in the last declaration. In addition, from the company's website, its profits have been declining since 2018. This can be attributed to declining sales volume due to changes in consumer preferences and competition. It would be expected that the company would maintain a steady growth since it is in food industry which is a critical area of the economy but that has not been the case. The major issues facing the company include competition from other millers, shortage of raw materials such as maize due to drought, high prices in acquisition of raw materials, high and tight margins on food products due to worsening economy. Unga Limited has experienced high staff turnover resulting to loss of valuable tactical knowledge and intellectual capital. For a company that was incepted in 1908, it would have been expected of Unga Limited to have gained from its monopolistic background by having a strong base with established systems to cushion it against competition and eventualities. The company has invested heavily in information technology systems geared towards improved efficiency and productivity. However, it does not have a knowledge management department where KM institutionalization can be done. This has resulted to the company to struggle in maintaining a competitive edge in the market according to Unga Group Limited Website (2018).

Some of the available literature in KMC and performance include; Ambula (2015) studied learning organization, KM, employee outcomes and performance of large manufacturing firms in Kenya and established that knowledge based resources had a direct effect on employee and organizational performance. Mosoti and Mesheka (2010) studied Knowledge Management Practices (KMP) in manufacturing Industries in Nairobi Kenya. The study revealed that over 65 percent of them had implemented knowledge management practices. Cheruiyot (2012) researched on Institutionalization of KM in Kenya manufacturing Enterprises and established that management of knowledge is a critical aspect in development and achievement of organizational goals. The research concluded that for a firm to retain competitive edge in the market, it should adopt and acknowledge knowledge as a fundamental asset that is crucial to organizational production.

According to a survey done by Singh *et al.* (2006) in Indian manufacturing industries the results showed a lack of understanding of the KM concept among the respondents. They perceived CEO support and the use of ICT as enablers of KM. Failure to commit and support by top level management, organizational culture and high employee's defection were cited as the major barriers for KM implementation. Auh and Menguc (2005) conducted a survey study of 260 Australian manufacturing firms to test the moderating role of competitive intensity on the relationship between knowledge exploration and exploitation, and firm performance; the findings of the survey showed existence of different impacts of exploration and exploitation on firm performance, which are moderated by a strategic type. The Exploration had a greater impact than exploitation on firm performance, while exploitation exerted a greater impact than exploration for defenders.

Despite the numerous researches conducted to investigate the effect of KMC and organizational performance with various other factors; no evidence is available on association of KMC and organizational performance and effect of top management commitment in milling industries in Kenya. Therefore, there exists a gap that form the basis of this study to analyze whether better utilization of KMC in milling industry can influence organizational performance.

1.3 Research Objectives

1.3.1 The General Objective

The research assayed on knowledge management capabilities and performance in milling companies with reference to Unga Group Limited.

1.3.2 The Specific Objectives

Specifically the research was to:

i) Examine effect of knowledge management process capabilities on performance of Unga Group Limited.

ii) Establish the effect of knowledge management infrastructure capabilities on performance of Unga Group Limited.

iii) Establish the effect of top management commitment to knowledge management practices on performance of Unga Group Limited.

1.4 Study Questions

i. How does knowledge management process capabilities influence performance in Unga Group

ii. How does a knowledge management infrastructure capability have an effect on performance in Unga Group Ltd?

iii. How does top management commitment to knowledge management practices influence knowledge management practices in Unga Group Ltd?

1.5 Significance of the Study

The inquest outcomes will aid millers on use as well as implementation of KMC, as most of them are unfamiliar with the new concept, which make them not provide valuable input, and resources to enhance effective KM infrastructure. It will also help milling companies to adopt factors that leverage the enhancement of knowledge management capabilities, train workers on optimum available knowledge to support their daily operations and ultimately improve productivity and organizational performance. It will help the food industry managers with an operational model to influence planning, operations, and sustenance of KMC in the firms.

The Government is of significant role in the emerging knowledge economy. The study will equip the officers responsible with the knowledge needed to adapt to the change**.** Research Institutes will use the findings to facilitate further studies in the area of Knowledge Management. Academicians will use this work for their literature review as they develop conceptual frameworks for their exploration.

1.6 Scope of the Study

The research was based on milling industry in Kenya with key area of interest being Unga Group Limited in Kenya. The population was 104 employees of Unga Group Limited comprising of top management and middle level managers (Unga Group Limited Human Resource Staff Records – June 2018). The research was done from October 2019. The variables under study include KMPC, KMIC and top management commitment on organizational performance. This study information was gathered for a period of two months by using descriptive research design to

establish how Knowledge management capabilities affect performance at Unga Group Limited and provide bases for describing data for statistical observation.

1.7 Limitations of the Study

Challenge occurred in accessing respondents due to company policy restrictions which require the company staff not to share information with external persons may be encountered by the researcher. The challenge was mitigated by presenting National Commission for Science, Technology and Innovation (NACOSTI) research permit to the management of Unga Group Limited as well as an introductory letter to seek consent to collect data.

The researcher also encountered respondents who failed to be objective while giving their feedback. To overcome this challenge, the questionnaires were carefully designed with instructions on how to fill, clear and simple language to enhance understanding and aimed at making each question specific. The researcher encountered respondents who were not willing to share information due to its sensitive nature and strategic value in the firm. To counter this, respondents were assured that the findings were only to be used for academic intent only.

1.8 Organization of the Study

The study entails five sections. The inaugural chapter outlines research backdrop, statement of the problem, Objectives, scope, study significance as well as limitations. The second chapter reviews theoretical and empirical literature relating to research objectives as well as a conceptual framework. Chapter three gives an outline of research methodology comprising of research design, sampling methods, collection and analysis of data. The fourth chapter outlines data analysis, results and deliberations. Fifth chapter outlines the summary, conclusions and recommendations for further study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The section consists of review of literature on KMC as well as performance in milling industry. It looks into different theories that form a foundation for this research. The empirical review outlines studies conducted by other scholars, their findings as well as research gaps. A conceptual framework illustrates the relations linking the study variables in this research.

2.2 Theoretical Review

This research is entrenched on the resource-based view (RBV) theory; Deming's theory; organizational learning theory and organizational capability perspective. These four theories present findings that link firm performance to knowledge management capabilities of an organization.

2.2.1 Resource Based View Theory

Resource-based view (RBV) hypothesis was formulated by Penrose (1959). The postulate addresses identity, nature and source of organizational strategic capabilities. The resource-based perspective asserts that production is a product of organizational resources and capacities. Penrose (1959) argued that organizations become successful and competitive through the development of tangible and intangible unique resources. The resource based view (RBV) proposes that competitive benefits and performance ends are results of a company definite collective ability as well as capacity that are high-priced for duplication by other contenders Penrose (1959). The assets together with potential are very crucial components of maintainable competitive edge and excellent company performance if they have exceptional attributes. They

should be worthy, increasing effectiveness and efficiency, uncommon, not imitable and not comparable.

RBV theory asserts that the collective ability is not only determinate to the traditional components of production: (physical and financial resources), they also comprises of others such as; organizational culture and relationship with suppliers. According to Barney (1991), knowledge resources are important in ensuring sustainable competitive advantages since it is difficult to imitate and it forms a foundation for sustainable differentiation. The implication of this argument is that efficient implementation of knowledge management capabilities by a firm through proper integration of all its resources as compared to its competitor's results in excellent performance. Capabilities like knowledge acquisition, capture, transfer and storage helps in the achievement of competitive advantage which transform both individual and organizational knowledge.

According to resource – based perspective, firms excel at the point when they put in place strategies that venture into their unique internal capabilities and resources. The RBV theory is suited for this study as it proposes that knowledge as an intangible asset can be adopted by an organization to build and create other resources and distinctive capabilities that help strengthen the firm's current assets resulting to high performance.

2.2.2 Organizational Learning Theory

Organization learning notion was initiated in management literature in early twentieth century by Fredrick Taylor. This theory focuses on change in organization by analyzing how organizations can adapt their systems and structures to technological, environmental and innovations. According to Senge (1990) organizational learning is a continuous process that analyzes

experiences and their transformation into knowledge to help an organization achieve its objectives. Organizational learning results in technological innovation that enables a firm positively respond to the dynamic market conditions. According to King (2001) organizational learning helps in building knowledge that results in employees behavioral change that aid in attaining of organizational targets by acquisition and sharing of information and knowledge by employees.

In the opinion of Alavi and Leidner (1999), knowledge management is a continuous exercise for generating as well as sharing both tacit as well as explicit knowledge within the organization for efficient production. Proper management of knowledge can result to development of new ideas and possibilities for improved performance (Sin & Tse, 2000). Knowledge management comprises of proper documentation, distribution and retrieval of knowledge assets to facilitate operation of business processes.

Organizational performance is a concept that broadly deals with the accomplishment of an organization's pre-defined targets. In essence, organizational performance entails processes by which an organization achieves its goals and meets its obligations (Helfat & Winter, 2011). Organizational performance also deals with the accomplishment of an organization in relation to its competitors. Notably, while financial performance is frequently used to evaluate an organizational achievement, it can also be analyzed from other perspectives such as customer service and value creation.

Organizational learning has different influences over organizational performance. According to Lopez et al. (2005) there exist a relationship between OL and performance because learning organizations are more flexible in responding to market challenges. OL happens when company employees direct their knowledge and learning experience to the entire organizational system to

improve performance. Lopez et al. (2005) asserts that OL is one of the means of contributing to organization's competitiveness and innovation. OL has four phases namely knowledge distribution; gaining internal knowledge; knowledge interpretation and knowledge storage.

The proposed model by Lopez et al. (2005) asserts that organizations learning are better achievers. The model seeks to authenticate that organizational learning is associated with improved performance, innovation, and competitiveness. Organization experience may change due to technological innovation which greatly recognizes the significance of knowledge and the need for organizational learning. In summary, the study intends to use this theory to recognize that OL fosters behavioral and cultural change for effective implementation of knowledge management practices for improved customer satisfaction and performance. Also, to help understand the importance of a firm's learning culture in KM and performance.

2.2.3 Deming's Theory

This theory introduced the concept of methodical approach to analytically solving a problem also known as PDCA cycle (Plan, Do, Check, and Act). The researcher, Dr. W. Edwards argued that in adopting appropriate principles of management, organizations can enhance quality. Deming's theory is grounded on the concept that an organization is a system whose success depends on the ability of management to balance each element of the system to achieve maximum efficiency. Therefore, top management commitment is necessary for successful execution of knowledge management inventiveness.

Knowledge asset is an important organizational resource, and management facilitates its acquisition by influencing knowledge management practices. When commitment and support from the top brass is imminent, it creates a spirit of cooperation which brings about favorable

outcomes, like improved quality, greater productivity, as well as efficiency (Weil & Woodall 2005). This is possible through a strategic leader, who has the capability to inspire and direct subordinates. Successful implementation of knowledge management strategies necessitates a cultural change led by management. According to Deming's theory, knowledge from outside the system is useful when used for learning and improvement of internal system. The prevailing management style in an organization determines the worth of services and products. This is through establishment of clearly defined purpose, shared vision, quality resources and delegation of responsibilities.

According to Award and Ghaziri (2004), strategic planning, training, compensation and reward are the top management activities critical for KMC success. Strategic planning focus on establishing clearly defines corporate objectives and aligning resources necessary for the accomplishment of the same. Training entails acquiring skills and competencies as well as behavior modification trough continuous learning to achieve high level of productivity. Compensation and reward is engrained in the organizational culture to ensure knowledge sharing and continuous improvement. The right stimulus and rewards motivate employees to implement knowledge management practices.

Deming's theory will be used in this study to appreciate how the top management support and commitment facilitates the implementation of knowledge management initiatives thus enhancing achievement of firm's objectives by nurturing the intellectual capabilities within the system to draw on people's need to achieve their potential.

2.2.4 Organizational Capability Perspective

This theory was first developed by G.B. Richardson in 1972 Richardson defines organizational capabilities as the company's ability to exploit both tangible and intangible assets to execute an assignment. The tangible and intangible resources of an organization include physical/material resources, financial and information resources as well as human capital. According to Richardson (1972), organizations face relentless pressure to meet consumer demands which is achieved through enhanced productivity and innovation. Knowledge management is an imperative strategy in meeting the market demand as it helps an organization in diversification and differentiation giving it a competitive advantage. The organization capability perspective asserts that knowledge forms a crucial role amongst other internal firm's resources. The perspective acknowledges that management of knowledge is a challenging task for organization since it requires employee motivation, top management commitment and organizational support. Gold et al, (2001) constructed an integrated approach comprising; knowledge management infrastructure capabilities and knowledge management process capabilities.

Knowledge infrastructure capabilities facilitate creation of competitive advantage for an organization through three key elements namely structural, technological and cultural. Technology refers to Information Technology systems that enhance incorporation of knowledge and information within an entity and those that support an organization in creating, transferring, storing, and protecting the knowledge resources of a firm. Culture is a multifaceted of beliefs, attitudes, vision which affect KM activities in a firm. According to Mills and Smith (2010) a favorable and flexible knowledge culture influences application of KM practices. Structure refers to the reporting relationships, rules, regulations, and hierarchy and it facilitates the control and

coordination of organizational activities. Therefore, business entities need to establish flexible organizational structure that makes it possible to acquire and distribute knowledge which in turn contributes to organizational continuity.

Knowledge management process capability comprise of the obtaining, transfer, application and protection of knowledge. Generation of knowledge according to Mills and Smith (2010) is concerned with seeking knowledge both from internal and external sources through interaction. Innovation, benchmarking, feedback, brainstorming, and interaction are some of the activities that facilitate knowledge acquisition. Therefore, in a way, knowledge acquisition mirrors the absorptive capability of a firm.

Knowledge transfer involves the conversion processes to promote assimilation of knowledge in the organization. Knowledge application refers to processes and activities in which a firm applies its acquired knowledge (Bhatt, 2002). Knowledge is utilized for value creation in an organization to enhance innovation and the creation of new products, lower costs, and greater efficiency thus enabling a firm to gain long term competitive advantage. Knowledge protection is critical for control and performance in a firm and this often involves using patents and copyrights along with IT systems that give discretionary access to knowledge using passwords, usernames, and access protocols (Lee et al., 2005).

In order to fully understand the success of knowledge management strategy, organizations must identify and assess the organizational capabilities required for effective performance. The organizational capability perspective offer a theoretical ground to help comprehend the role played by knowledge management infrastructure capabilities and knowledge management process capabilities on organizational performance.

2.3 Empirical Review

This will analyze literature in relation to the specific objectives in this research to determine how process capabilities, infrastructure capabilities together with top management commitment affect milling industries production.

2.3.1 Knowledge Management Process Capability and Organizational Performance

Various authors have proposed that KMPCs are crucial for development and knowledge creation that affects the performance of a business entity (Mills & Smith, 2010). In addition, correlation exists between knowledge and firms performance given that rare and unique knowledge can yield competitive advantage for an organization. Kuo (2011) examined the link between human resource management, organization learning, knowledge management infrastructure capabilities and organizational performance in industrial companies in Taiwan. The study used a questionnaire to gather information from 659 employees from electronic industrial listed companies in Taiwan. The study concluded that human resource management strategies result in better organizational learning while knowledge management infrastructure capabilities (acquisition, creation, sharing, and obtaining) results in improved organizational performance. The study is instrumental in helping to acknowledge the role of knowledge management process capabilities however; it did not consider top management commitment as an organizational variations factor that may affect organizational performance. The study sought to address this gap by examining the link between top management commitment to KM practices and performance.

Handzic (2011) compared the impact of social and technical initiatives on the knowledge management of an organization. The study sought to understand how the aforementioned initiatives affect knowledge acquisition. Descriptive research was used in the research and primary data was gathered from a sample of 185 European senior civil servants using questionnaires. The findings of the study suggest that social factors have greater impact on creation and acquisition of knowledge than technical factors. Notably, leadership was found to enhance activities that create new, and transfer existing, knowledge. The study focused only on knowledge acquisition which is an element of knowledge management process capabilities. The study failed to analyze the influence of knowledge management process capabilities on organizational performance. The current study analyzed the influence of other knowledge management process capabilities namely knowledge application, transfer and protection on organizational performance.

Ahoorani and Banihashemi (2011) probed the role of information technology (IT), networks, and human resources in establishing knowledge generation, transfer, and application processes in Communications Company of Sistan and Bauchestan Province. The study utilized descriptive research methodology, and data was gathered using interviews, questionnaire and observation from a representative of 240 responders. Ahoorani and Banihashemi (2011) found that there was positive connection linking levels of IT infrastructures and establishment of knowledge management process capabilities. Notably, the study did not investigate the role of IT in the knowledge protection which is an element of knowledge management process capabilities. In addition, it did not analyze the influence of KMPC on organizational performance. This study analyzed the influence of knowledge management process capabilities (acquisition, application, transfer together with protection) on organizational performance in milling industries.

Kiseli et al. (2016) studied the effect of knowledge management capabilities on competitive advantage in the Kenya hospitality industry. The study utilized descriptive research design methodology. Data was gathered using structured questionnaires from 172 selected across the top, middle level and low level management staff of five star hotels based in Nairobi. The study concluded that knowledge management processes capabilities (generation, sharing, application, and storage) is essential in achieving organizational competitiveness as it encourages promotes knowledge discovery, application, detection, acquisition and sharing. The study failed to address how knowledge management process capabilities and top management commitment affects organizational performance. This study addressed this gap by studying the impact of knowledge management process capabilities on organizational performance in milling industries.

Ajanaku (2018) explored the result of knowledge management processes on effectiveness with which nursing care was provided. Descriptive research methodology was applied in the study. Baseline data from a sample of 319 nurses from UCH Ibadan and Oyo State and Obafemi Awolowo University Teaching Hospital Complex was gathered using questionnaires. The study found that knowledge management processes have a notable outcome on effectiveness of nursing care. Given that the study focused on the public health sector, there is need for further study to assess the generalizability of the study results to other industries. In addition, the study failed to analyze the role of knowledge management process capabilities on organizational performance which is the gap this study intended to address.

2.3.2 Knowledge Management Infrastructure Capabilities and Organizational Performance

Seleim and Khalil (2007) affirmed that KMICs directly influence organizational performance. However, it is not just the existence of knowledge assets within an organization that boost its performance; but rather, it is the consistent application of relevant KMICs that yield positive outcomes. As such, some knowledge-based assets such as organization structure, culture, technology and human resources positively affect performance. Moreover, reorganizing established values, norms, and mentalities is critical for knowledge accumulation and improved organizational performance.

Nguyen and Neck (2010) studied the critical role of knowledge management in achieving and sustaining organizational competitive advantage in construction firms. Survey questionnaires were used to collect data from 148 senior managers participating in exhibition of construction firms. This study concluded that knowledge management infrastructure capabilities have great effect on a firm's effectiveness. As per the study, organizational culture has a distinctive and notable contribution to an organization's competitive advantage. Organizational structure on its own did not have a significant impact on a firm's competitiveness. However, when coupled with other factors such as technology, culture and human resources, organizational structure had a conclusive and remarkable relationship to competitive edge. This research failed to identify the situational factors which affect the relationship between KMC. In addition, it failed to analyze the influence of KMC on organizational performance. This study analyzed top management commitment as a situational factor in the link between KMC and organizational performance.

Cheruiyot et al (2012) examined factors influencing institutionalization of knowledge management in manufacturing firms in Kenya. Descriptive research design methodology was used. Data was collected from 60 senior managers in three selected manufacturing enterprises using questionnaires. The study concluded that institutionalization of knowledge management infrastructure capabilities is strongly influenced by organizational practices, management support and technology. The study did not consider knowledge management infrastructure capabilities as a factor in the use and implementation of KM. Also, the study did not analyze the effect of effect of KMC (both infrastructural and process capabilities) on organizational performance which is the gap the current intended to fill.

Seba et al (2012) studied knowledge sharing in the Dubai Police Force. The study employed descriptive statistics and data was collected using questionnaires from a sample of 15 senior police officers of the Dubai Police Force. The study found that organizational structure and leadership are hugely significant in the transfer of knowledge within an organization. If properly configured, organizational structure can enable knowledge transfer and enhance performance, and be an impediment if not well configured. Trust, a crucial element of organizational structure was found to be a barrier to knowledge sharing especially to bottom-up knowledge transfer. The research gap posed by this study is how organizational structure and culture influence performance of firms in the private sector and milling industries.

Obeidat et al (2015) explored on position of knowledge management (KM) infrastructure capabilities (culture, structure, technology, and human resources) in boosting innovation in mobile telecommunication companies in Jordan. Descriptive research design was utilized wherein data was collated using questionnaires from a sample of 300 participants. The study affirms that knowledge management infrastructure positively impacts innovation, which is

crucial to competitive edge in modern markets. This study failed to analyze the influence of KMIC on organizational performance of local milling firms creating a need for research in this area.

Choe (2016) examined the relationship between technology (information systems, information technology) and organizational performance. Interviews and questionnaires were used to collect empirical data from a sample of 117 private firms. The results of the study indicate the information systems and information technology enhance the construction of an IT infrastructure for collaboration on knowledge management. There is need for further study into other factors of KMIC in relation to organizational performance in diverse organizations.

Pee and Kankanhalli (2016) examined the interaction amongst factors influencing knowledge management within public organizations. Descriptive research design was employed in the study. Primary data was collected from 101 respondents using questionnaires. The study found that technology, in conjunction with human capital and organizations assets, enhances knowledge management capabilities. In addition, the study uncovered that organizational structure is a limiting element in the contribution of knowledge management to performance. As comprehensive as the study was, it was deficient in analyzing the interaction linking knowledge management infrastructure capabilities and performance of an organizational, a gap to be addressed by the current study.

Masad'eh et al (2019) probed on correlation between KM infrastructure and job satisfaction from the perspective of a developing country. Descriptive research was used in the study, and questionnaires were administered to a sample of 168 respondents to collect primary data. Notably, Masad'eh (2019) observed that technology and culture have significant positive impact

on job satisfaction whereas structure had marginal effect. The study did not analyze the relation between KMIC and performance. Further research is needed to understand the effect of KMIC on organizational performance.

2.3.3 Top Management Commitment in Knowledge Management Practice and Organizational Performance

To successfully implement knowledge management initiatives top brass commitment is vital. Top management is the highest and responsible for making decisions within the organization and as such, has the responsibility of mobilizing all the firms' resources to achieve its objectives. This is by being exemplary role model to the subordinates and creates a capacity within to establish higher levels of commitment to organizational goals. Top management commitment to KM practices is seen through strategic planning, compensation and rewards and training of staff.

Kulkarni, Ravindran, and Freeze (2006) studied KM success model based on quality of available knowledge and knowledge management systems built to manage knowledge. Descriptive research design was utilized with data collected form 150 knowledge practitioners using questionnaires. The study established that commitment of top level management to management of organizational knowledge influences the planning of policies and procedures of an organization while goal setting is important for successful knowledge management. The main deficiency of this study was that it was highly theoretical. There is need for field study to test its postulates.

Roland and Kulkarni (2007) examined a knowledge management success model incorporating quality of existing knowledge and KM systems built for knowledge management. Descriptive research design was used and data was gathered from 150 knowledge practitioners using

interviews and questionnaires. The study uncovered that leadership commitment enhanced knowledge utilization and organizational knowledge quality. Moreover, goal setting was found to be important for eventual success of knowledge management. The study failed to link the top management commitment to knowledge management practices and organizational performance.

Ozbebek and Toplu (2011) explored into the contribution of staff empowerment and training to knowledge sharing. The study utilized descriptive research design. Questionnaires were used to collect primary data from a sample of 119 sample members. The study uncovered that there is positive correlation between employee empowerment, training and knowledge sharing. The gap of the study was its limited scope, which means the results cannot be generalized. The study did analyze how training as a component of top management commitment to KM practice influence organizational performance.

Nielsen et al (2011) investigated the association between human resource management practices (recruitment, training and development, and performance appraisal) and knowledge transfer within the context of Malaysian industry. Exploratory factor analysis and confirmatory factor analysis were utilized in the study design, whereas the theoretical framework was examined using structural equation modelling. The study found knowledge transfer and human resource management practices including training to be positively correlated. The study gap of this study is in linking training as a component of top management commitment to KM practice to organizational performance.

Amayah (2013) looked into the factors affecting knowledge sharing in public organizations. 461 participants were selected from academic institutions and descriptive research methodology utilized. Primary data was gathered from the sample members using questionnaires. The study

found negative relationship between compensation and rewards and knowledge sharing, whereas social interactions enhanced the transfer of knowledge. The study did not examine how compensation and rewards as a component of top management commitment to KM practice affect organizational performance indicating a research gap which the current study sought to address.

Pour et al. (2018) undertook a study on the role of strategic planning in knowledge management (KM) implementation. The study argued that top level management need to create plans to guide the implementation of knowledge management processes in an organization. Pour et al (2018) assert that most KM initiatives fail to poor strategic planning however large the investments are. The study collected data using semi-structured interviews with KM consultants. The study findings indicate strategic planning methodology for knowledge management to involve strategy review, orientation, implementation and evaluation. The study was theoretical, did not have a specified sample and lacked clear quantitative analysis. The study provided a framework for strategic planning for KM, and thereby creates opportunity for further study to establish the relevance and effectiveness of the framework in improving organizational performance.

Victor and Kathaluwage (2019) explored on influence of training and development in knowledge management within banking sector. Quantitative research was employed in the study and data collected through questionnaires from 196 participants gathered from 12 banking institutions. The results of the study suggest high correlation between training and development and knowledge management. The main gap of the study was in its failure to link training to organizational performance.

2.4 Summary of Literature and Study Gaps

2.4.1 Summary of Literature

Research has been done on correlation between firm's performance and knowledge management. Most agreed that there exist a notable link between the two variables. Gold et al. (2001) asserted that knowledge management process capabilities positively affect effectiveness in an organization, an assertion that Lee and Choi (2003) agree with especially in stimulating creativity and innovation. According to Mills and Smith (2010), a company's performance is positively impacted by knowledge process together with infrastructural competences. In addition, KMCs were found to directly influence a firm's competitive edge in a study undertaken by Chuang (2004). KMCs, like culture, people structure and technology influences processes and this, affect financial, organizational productivity and customer satisfaction. Moon and Lee (2014) established existence of a substantial relationship between KMICs, knowledge management processes, and a firm's performance. According to Seleim and Khalil (2007), knowledge application affects organizational performance of all knowledge management processes. Therefore, there exist needs to conduct a research on knowledge management infrastructure capabilities, knowledge management process capabilities and top management commitment as variables and their effect on organizational performance in milling industries.

Table 2.1 Research Gaps Summary

Researcher	Research	Methods	Study Results	Study Gaps	Present Study
Kuo (2011)	The study examined the link between Human Resource Management, organization learning, KM capability and organizational performance in industrial companies in Taiwan	The study employed questionnaire to gather data from 659 employees from electronic industrial listed companies in Taiwan	HRM strategies result in better organizational learning while KM infrastructure capability results in improved organizational performance	The study did not consider top management commitment as an organizational variations that might affect organizational performance	This study examined the link between top management commitment to KM practices and performance.
Hndzic (2011)	The study the impact of social and technical initiatives on the knowledge management and acquisition of public sector in Europe	Descriptive research was employed in this study and primary data was gathered from a sample of 185 European senior civil servants using questionnaire	The study suggested that social factors have greater impact on creation and acquisition of knowledge than technical factors. Leadership was found to enhance activities that create new, and transfer existing, knowledge	The study focused only on knowledge acquisition which is one element of knowledge management process capabilities. This study failed to analyze the impact of knowledge management process capabilities on organizational performance.	The current study analyzed the influence of other knowledge management process capabilities namely knowledge application, transfer and protection on organizational performance
Ahoorani & Banihashemi (2011)	Role of information technology (IT), networks, and human resources in establishing knowledge generation,	The study utilized descriptive research methodology, and information was gathered through interviews,	The study concluded positive significant correlation exist between levels of IT infrastructures and establishment of	The study did not investigate the role of IT in the knowledge protection which is an element of knowledge management process	This study analyzed impact of knowledge management process capabilities

	transfer, and application processes in Communications Company of Sistan and Bauchestan Province.	questionnaire and observation from a selection of 240 responders.	knowledge management process capabilities	capabilities. It also did not analyze the influence of KMPC on performance of an organizational.	(acquisition, application, transfer and protection) on organizational performance in milling industries
Kiseli et al., (2016)	Effect of knowledge management capabilities on competitive advantage in the Kenya hospitality industry	Data was gathered from 172 employees sampled across the top, middle level and low level management staff of five star hotels based in Nairobi using structured questionnaire	Knowledge management processes capability is crucial in accomplishment of organizational competitiveness as it encourages promotes knowledge discovery, application, detection, acquisition and sharing. Strong technical knowledge management infrastructure capability promotes efficiency	The study failed to acknowledge how KMIC and KMIC affect organizational performance. This research did not focus on the milling sector but focused on the hospitality industry	The study investigated how performance is affected by KMC with a focus in the milling industry
Ajanaku (2018)	The study explored the effect of knowledge management processes on effectiveness with which nursing care was provided.	Descriptive research methodology was used in this study. Questionnaires were used to gather primary information from a sample of 319	The study found that knowledge management processes have a significant effect on effectiveness of nursing care.	The study failed to analyze the influence of knowledge management process capabilities on organizational performance. The study focused on the health sector only	This study probed the influence of knowledge management process capabilities on organizational performance

		nurses from UCH Ibadan and Oyo State and Obafemi Awolowo University Teaching Hospital Complex.			
Nguyen and Neck (2010)	The Critical Role of Knowledge Management in Achieving and Sustaining Organizational Competitive Advantage	Survey questionnaires were used to collect data from 148 senior managers participating in exhibition of construction firms	The study concluded that knowledge management infrastructure capabilities have great impact on a firm's competitive effectiveness. Organizational culture and technology have distinctive and notable contribution to an organization competitive advantage. Organizational structure on its own did not have a significant impact on a firm's competitiveness.	The study failed to identify the situational factors which affect the relationship between KMC. In addition, it failed to analyze the influence of KMC on organizational performance.	This study analyzes top management commitment as a situational factor in the relationship between KMC and organizational performance.

Cheruiyot et al (2012)	The study examined factors influencing institutionalization of knowledge management in manufacturing firms in Kenya	Data from 60 senior managers in three selected manufacturing enterprises was gathered using questionnaire	institutionalization of knowledge management infrastructure is strongly influenced by organizational practices, management support and technology	The study did not consider knowledge management process capabilities as a factor in the use and implementation of KM	The study examines the effect of KMC both infrastructural and process capabilities on firm's performance
Seba et al (2012)	The study examined knowledge sharing in the Dubai Police Force.	The study employed descriptive statistics and data was collected using questionnaires from a sample of 15 senior police officers of the Dubai Police Force.	The study found that organizational structure and leadership are hugely significant in the transmission of knowledge within an organization. Trust, an important part of organizational structure was found to be a barrier to knowledge sharing especially to bottom-up knowledge transfer.	The study did not analyze how organizational structure and culture influence organizational performance of firms in the private sector and milling industries.	The current study analyzed organizational structure and culture as elements of knowledge management infrastructure capabilities influence performance of milling industries
Obeidat et al (2015)	The role of knowledge management (KM) infrastructure capabilities (culture, structure, technology, and human resources) in boosting innovation	Descriptive research design was utilized. Data was collated using questionnaires from a sample of 300 participants.	The study affirmed that knowledge management infrastructure positively impacts innovation, which is vital to competitive	The study failed to analyze the influence of KMIC on organizational performance of local milling firms.	The current study analyzed the influence of KMIC on organizational performance in milling firms.

	in mobile telecommunication companies in Jordan.		advantage in modern markets.		
Choe (2016)	The study examined the relationship between technology (information systems, information technology) and organizational performance.	Empirical data from a sample of 117 private firms was gathered by use of Interviews and questionnaires	The study indicated the information systems and information technology enhance the construction of an IT infrastructure for collaboration on knowledge management.	The study failed to analyze the influence of other elements of KMIC apart from technology on organizational performance.	There is need for further study into other factors of KMIC in relation to organizational performance in diverse organizations.
Pee and Kankanhalli (2016)	The study examined the interaction amongst factors influencing knowledge management within public organizations	Descriptive research design was used in this study. To collect Primary data from 101 respondents using questionnaires.	The study found that technology, in conjunction with human capital and organizations assets, enhances KMC	This study failed to analyze the linkage between knowledge management infrastructure capabilities and performance of an organization	The current study explored the influence of KMIC on the performance of an organizational
Masad'eh et al (2019).	Relationship between KM infrastructure and job satisfaction from the perspective of a developing country.	Descriptive research was used in the study, and questionnaires were administered to a sample of 168 respondents to collect primary data	The study observed that technology and culture have significant positive impact on job satisfaction whereas structure had marginal effect.	The study did not analyze the relation between KMIC and performance.	The current study examined effect of KMIC on organizational performance in milling industry
Pour, Zadeh, & Zadeh (2018).	The role of strategic planning in knowledge management (KM)	Descriptive research. Semi-structured	Strategic planning methodology for knowledge	Study was mainly theoretical, sample not specified, and lacks clear	The current study examined how strategic planning

	implementation.	interviews with consultants.	management involves strategy review, orientation, implementation and evaluation	quantitative analysis	as an element of top management commitment to KM practice influenced organizational performance in milling industries
Roland & Kulkarni (2007)	The study examined a knowledge management success model incorporating quality of existing knowledge and KM systems built for knowledge management	Descriptive research design was used and data was gathered from 150 knowledge practitioners using interviews and questionnaire	Leadership commitment enhanced knowledge utilization and organizational knowledge quality.	The study failed to link the top management commitment to knowledge management practices and organizational performance.	The current study probed on how top level managers' commitment to KM practice influenced organizational performance
Ozbebek & Toplu (2011)	Impact of staff empowerment on knowledge sharing.	Descriptive research design was used. Data was collected from 119 respondents through questionnaires.	Positive correlation between employee empowerment and knowledge sharing	The study had limited scope hence results cannot be generalized. Also, it did not analyze how training as a component of top management commitment to KM practice influence organizational performance.	The current study examined how training as a component of top management commitment to KM practice influenced organizational performance
Kulkarni, Ravindran, & Freeze	KM success model based on quality of available knowledge	Descriptive research design with data collected	Commitment of top level management to management of	The paper is highly theoretical. There is need for field study to test its	The current study sought to collect data relating to

(2006)	and knowledge management systems built to manage knowledge.	form 150 knowledge practitioners using questionnaires.	organizational knowledge influences the planning of policies and procedures of an organization. Goal setting is important for successful knowledge management.	postulates	effect of top management commitment to KM practices on organizational performance in milling industry
Victor & Kathaluwage (2019)	Influence of training and development in knowledge management within banking sector.	Quantitative research through questionnaires from 196 participants	High correlation between training and development and knowledge management.	Relationship between training in KM and performance not examined.	The current study analyzed the training as an element of top management commitment to knowledge management practices and organizational performance
Nielsen, Rasmussen, Fong, Ooi, Tan, Lee, & Chong. (2011).	The association between human resource management (HRM) practices (recruitment, training and development, and performance appraisal) and knowledge transfer.	This study utilized Exploratory factor analysis as well as confirmatory factor analysis	Positive correlation between knowledge transfer and HRM practices.	Link between training as a component of top management commitment and organizational performance not established.	The current study examined training as a component of top management commitment to KM practice to organizational performance.

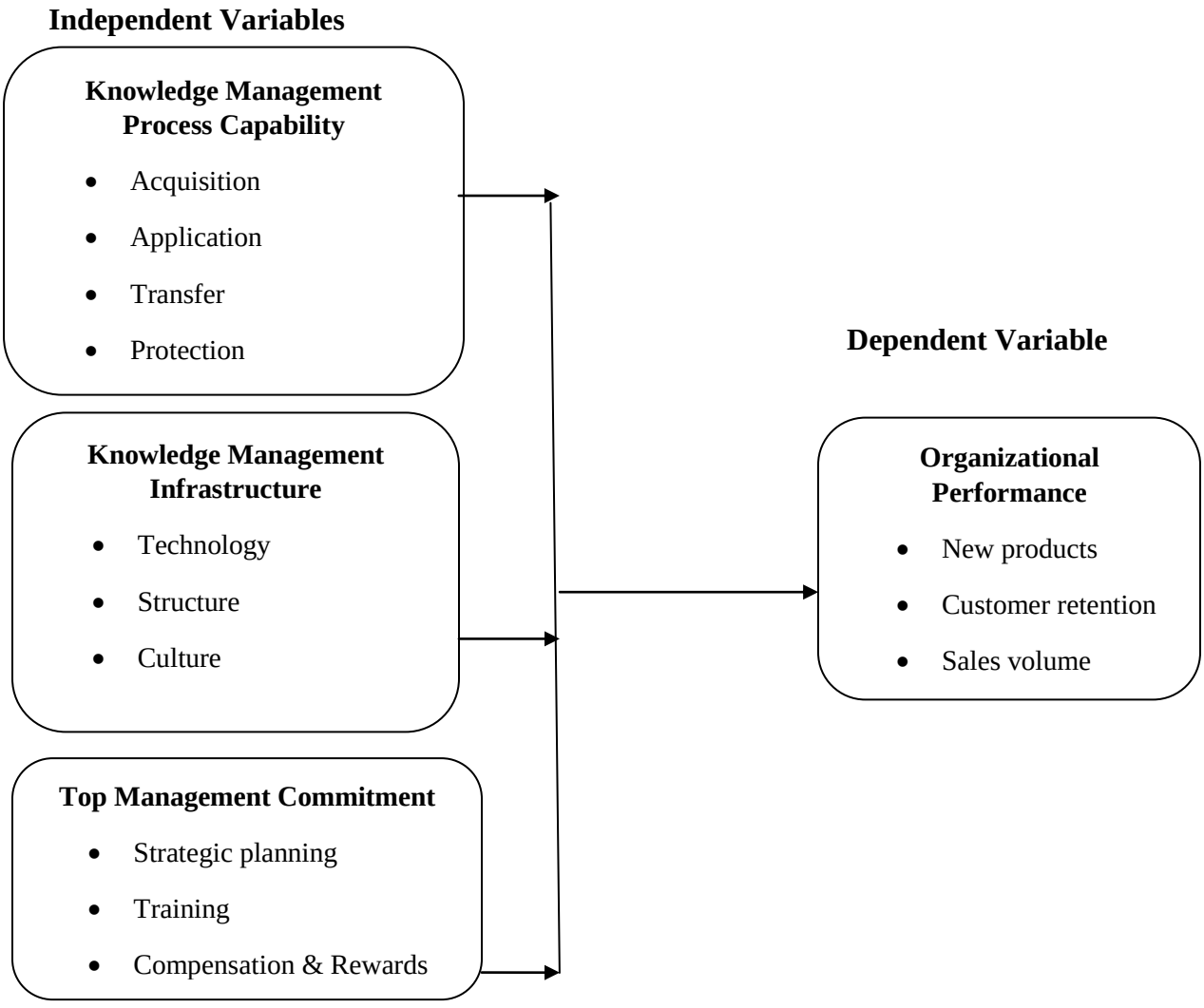
Amayah (2013)	Factors affecting knowledge sharing in public organizations.	Questionnaires were utilized to gather primary data from 461 participants. This study also used descriptive research methodology.	Negative relationship between compensation and knowledge sharing	The study did not examine how compensation and rewards as a component of top management commitment to KM practice affect organizational performance indicating a research gap which the current study sought to explore.	This research investigates top brass commitment role in KM as well as its effects on company performance
Gold et al (2001)	Effects of knowledge management processes and enablers on organizational effectiveness	Data from 1000 senior executive from American organizations was collected by use of a formal survey	Infrastructure and process capabilities contribute to the achievement of organizational effectiveness	The study ignored the role played by top management commitment in KM practices and its effects on performance of an organization.	This research investigates top brass commitment role to KM as well as its effects on company performance
Mills & Smith (2010)	Effect of knowledge management enablers and processes on organizational performance in Jamaican organizations	Data was collected through an internet-based survey on 180 respondents enrolled in Masters-level and working in Jamaica Service and manufacturing industries	Knowledge process capabilities and Knowledge infrastructure capabilities affect organizational performance significantly.	The study did not acknowledge the role played by top management commitment in KM practice. The study did not examine the link between process infrastructure capability that that consists of knowledge resources and performance of a firm.	Current study uses the Deming's theory to analyze the role of top management commitment to KM practices and organizational performance. The study also scrutinizes correlation between processes

					capabilities and organizational performance in milling sector
Lee and Choi (2003)	Relationship among the components of knowledge management, enablers, knowledge creation process, organizational creativity and organizational performancein Korean organizations	Questionnaires were used to gather data from 203 middle managers in different organizations in Korea	Knowledge management enablers have a conclusive and notable impact on knowledge management processes and knowledge management processes increase organizational and performance creativity.	The results of this study were generalized to organizations with different levels of internal capabilities in various firms without giving consideration to their particular context	This study focuses on the milling companies and the results will be generalized to the similar milling companies in Kenya

Source: Researcher (2018)

2.5 Conceptual Framework

Responding variable in the study was organizational performance which was controlled by the changes in the independent variables which included Knowledge Management Process Capability, Knowledge Management Infrastructure and Top Management Commitment. Figure 2.1 below represented the correlation of variables in the research.



Source: Survey data (2018)

Fig.2.1: Conceptual Framework

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlined method of research which included, study techniques, techniques of obtaining a representative sample, research instrument, target populace, data collection as well as analysis.

3.2 Research Design

Descriptive research design was employed in the research since observation of subjects was in their natural environment. It entailed collection of data to respond to research queries and hypothesis (Orodho, 2003). The descriptive research approach attempted to explain people's behaviour, values, habits, and opinions on social and educational topics by administering questionnaires and interview schedules to a sample population (Orodho and Kombo, 2002). This study used descriptive research design to accomplish its aims as it was used to find out 'how' knowledge management capabilities affect performance at Unga Group Limited and it provided tools for describing data that was collected for statistical observations and summarized the collected data to a reasonable amount.

3.3 Target population

Target population is defined as a whole group of people with unifying and similar characters from which sample is selected (Borg & Gall, 1989). The study population comprised of 127 middle level managers and 13 top managers of Unga Group Limited (Unga Group Limited Human Resource Staff Records – June 2018). The study population was selected from all the five departments in the company namely: Finance Division, Human Resource and General

Administration, Production and Quality Assurance; Sales, Marketing and Customer Service; and Procurement.

Table 3.1: Target Populace

	Populace	**Percentage %**
Top management level	13	9.29
Middle management level	127	90.71
Overall	**140**	**100%**

Source: Unga Group Limited Human Resource Staff Records- June 2018

3.4 Sample and Sampling Procedure

Sample size is a fraction drawn from the populace. Sample representative was chosen by use of Stratified random sampling approach. This was because stratified random sampling method was the most suitable when the population where a sample size is drawn from does not consist of an identical group. The target population was stratified according to their ranks of management namely top level managers and middle level managers. The sample size was chosen at random from each stratum (level of management) taking part in the research .Gay (2001) pointed that a sample of more than 40 units is representative and sufficient.

Slovin formula given below was applied to decide sample size.

$$n = \frac{N}{\{1+N(e)^2\}}$$

n being sample size

N= Total populace

e = error of tolerance or margin of error

The sample has been computed as follows:

$$n = \frac{N}{\{1+N(e)^2\}} = \frac{140}{\{1+140(0.05)^2\}} = 104$$

Table 3.2: Sample size

Category	Total Population	Frequency	Percentage %
Top management	13	9	8.65
Middle level managers	127	95	91.35
Total	**140**	**104**	**100%**

Source: Survey Data (2018)

3.5 Data Collection

3.5.1 Instruments of Data Collection

The study utilized primary and secondary data to collect data. Primary data enabled the researcher to collect first-hand information from the respondents. A questionnaire was used to collect primary data from the various categories of staff. Sapsford and Japp (2006) argue that the questionnaire is a standardized method of data collection where each respondent is asked the same questions, carrying the same meaning so that responses are comparable across. It was advantageous to use a questionnaire since it was cheap and far quicker to conduct an investigation. The questionnaire contained closed and open –ended items for each variable generated using a five point Likert scale was used to measure the items where 1 represented 'strongly disagree' and 5 'strongly agree'. The primary data was important to the researcher since it was more dependable and precise from the study participants. In addition, the secondary crucial for research and has been gathered from annual reports, journals and publications from research institutions in the field of knowledge management and the library books.

3.5.2 Data Collection Procedure

Administration of research instrument was done by hand delivery and retrieval technique. The questionnaire gathered data that addressed challenges of the research in order to achieve study objectives. Data gathering lasted for fifteen (15) days.

3.5.3 Pilot-testing of the Research Instrument

A trial study was conducted on the questionnaire before distributing it to the sample population. According to Kothari (2004), a pilot test is done to bring out the weaknesses (if any) in the questionnaire and take corrective revisions to ensure data collected is reliable and valid. Pre-testing was done on ten respondents not involved in the actual study. The ten respondents chosen represent 10% of the sample which Mugenda and Mugenda (2003) asserted that is adequate for piloting. Comments from the respondents were used to evaluate correct errors and refine the research instrument.

3.5.4 Reliability of the Instrument

A trial test was conducted to discard all non-essential, strenuous or ambiguous questions to establish that feedback can be construed as per required data. Cronbach's alpha method was adopted to analyze the results of trial test facts in order to establish the internal consistency of the queries as per questionnaires. Cronbach’s alpha coefficient was employed to determine the dependability of the data collection tool. Coefficients value scales from 0 to 1. A high score implies a reliable questionnaire. After pilot study, questionnaires were further refined on the basis of information received.

Cronbach’s Alpha was used in evaluating the reliability of the research tool and its internal consistency. Cronbach’s alpha was also used to assess if elements within a scale measure the

same construct. The value of 0.7 is accepted lower limit for α, where $0.7 \leq \alpha < 0.9$ means that there is good internal consistency and $\alpha < 0.7$ means there is questionable internal consistency.

Table 3.3: Reliability Test

Variable	Cronbach's Alpha	Number of items	Assessment
KM processes	0.764	8	Reliable
KM infrastructure	0.791	8	Reliable
Top level management support to KMC	0.776	8	Reliable
Performance	0.739	8	Reliable

Source: Survey Data (2020).

From the table aabove, all the variables had high internal consistency with KM infrastructure having the highest α=0.791, followed by top level management support with α=0.776, then KM processes with α=0.764, and performance with α=0.739. All the values for Cronbach's Alpha lie above the accepted range for internal consistency for the scale used in the study.

3.5.5 Validity of the Research Instrument

Mugenda and Mugenda (1999), assert that validity is the correctness of inferences grounded on the outcomes of the research. According to Borg and Gall (1989), validity, is the extent to which the measurement is accurate signifies that the data obtained is relatively free from error. It will measure the extent to which a research correctly assesses the identified idea from the researcher. The research employed content validity to assess the degree to which the questionnaire addressed the research topic. Experts in the field of knowledge management and especially the supervisor were consulted by the researcher to ensure content validity. Feedback given by the experts aided

in establishing the research instrument validity by the researcher. Recommendations and clarifications were used in makings required changes. The piloted questionnaire was examined to determine items that seemed dispensable. Such items were evaluated and re-written, thereby improving the validity of study tool.

3.6 Data Analysis and Presentation

To analyze numerical data Inferential and descriptive statistics was adopted. Application of descriptive statistics was used to derive the mean, percentages and standard deviation together with co-efficient variation where and when deemed appropriate. Statistical Package for Social Sciences (SPSS) facilitated the analysis. Multiple linear regressions were used as part of inferential statistics to determine the relationship amongst variables.

The regression equation was as follows:

$$\mathbf{Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon}$$

Where:

Y = Company performance

β_0 = Constant

β_1 - β_3 = Intercepts of Independent variables

X_1 = Knowledge management processes

X_2 = Knowledge management infrastructure

X_3 = Top Management Commitment

ε = Standard error

Analysis of qualitative data was done through coding and organization of collected information to similar concepts and themes that addressed the research questions. Graphs and tables were used to present the coded data in relation to the specific objectives.

3.7 Ethical Consideration

Ethics entails deliberate choice between what is correct and wrong. Confidentiality was of ethical consideration since the data pertinent to the inquiry was of cardinal value. Consequently, the participant's names and departments were concealed. In addition, responses attributed to particular persons were treated with strict confidence. The usage of demeaning language as well as strenuous queries was avoided. To conduct the research, permission was obtained from Unga Limited and the subjects. This was to ensure all human subjects chose to participate of their free will and maintain objectivity in data collection.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSIONS

4.1 Introduction

This section contains results of the data analysis on the knowledge management capabilities and performance in milling companies with a special emphasis on Unga Limited. The chapter also provides an interpretation of the results based on the literature reviewed in chapter two.

4.1.1 Response Rate

A total of 104 responders were sampled from each level of management at Unga Limited. One questionnaire per respondent was administered to the 104 respondents. Among the 104 distributed questionnaires, 81 questionnaires were successfully filled and returned translating to a rate of response of seventy seven point nine percent (77.9%) as displayed by table 4.1

Table 4.1: Results of Response Rate

Respondents	**Questionaries' Administered**	**Questionnaires Filled and Returned**	**Percentage (%)**
Top Level Managers	9	6	66.7
Middle Level Managers	95	75	78.9
Total	**104**	**81**	**77.9**

Source: Survey Data (2020)

The response rate of 77.9% was good and conforms to Orodho (2009) who stipulated that a rate of response of 50% and above is sufficient for evaluation, making inferences as well as conclusion from the data collected.

4.2 Demographic Characteristics of the Respondents

The study endeavored to analyze the bio data of the respondents in terms of their gender, age, work experience, designation, and level of education.

4.2.1 Gender of the Respondents

Gender distribution results of the respondents are as presented in Table 4.2.

Table 4.2: Gender of the Respondents

Respondents	Frequency	Percentage
Male	46	56.8
Female	35	43.2
Amount	**81**	**100**

Source: Survey Data (2020)

From results in Table 4.2, greater numbers of the respondents were male amounting 56.8% while remaining were females amounting to 43.2%. The results indicate that there was a fair selection of both genders for the study.

4.2.2 Age Bracket of the Respondents

This section presented the age bracket of the respondents as illustrated in Table 4.4

Table 4.3: Age Bracket

	Rate of occurrence	Percentage %
21-30	7	8.6
31-40	16	19.8
41-50	41	50.6
51 and above	17	21.0
Amount	**81**	**100**

Source: Survey Data (2020)

Table 4.3 illustrates that 50.6 % of the respondents were between 41-50 years, 21 % were 51 years and above, followed by 19.8% and 8.6% for both 31-40 and 21-30 years respectively. Most respondents were between 41-50 years of age reflecting skewness towards older employees at the middle level management and top management. This can be attributed to the fact that top level managers and middle level managers should be people who have more tactical knowledge in terms of experience and learning. According to Davenport and Prusak (2000), experienced employees are considered to be more knowledgeable which influences how they handle problems and comprehend new situations.

4.2.3 Work Experience at the Organization

The study endeavored to investigate the length of service responders had at Unga Limited. Figure 4.1 shows results analysis.

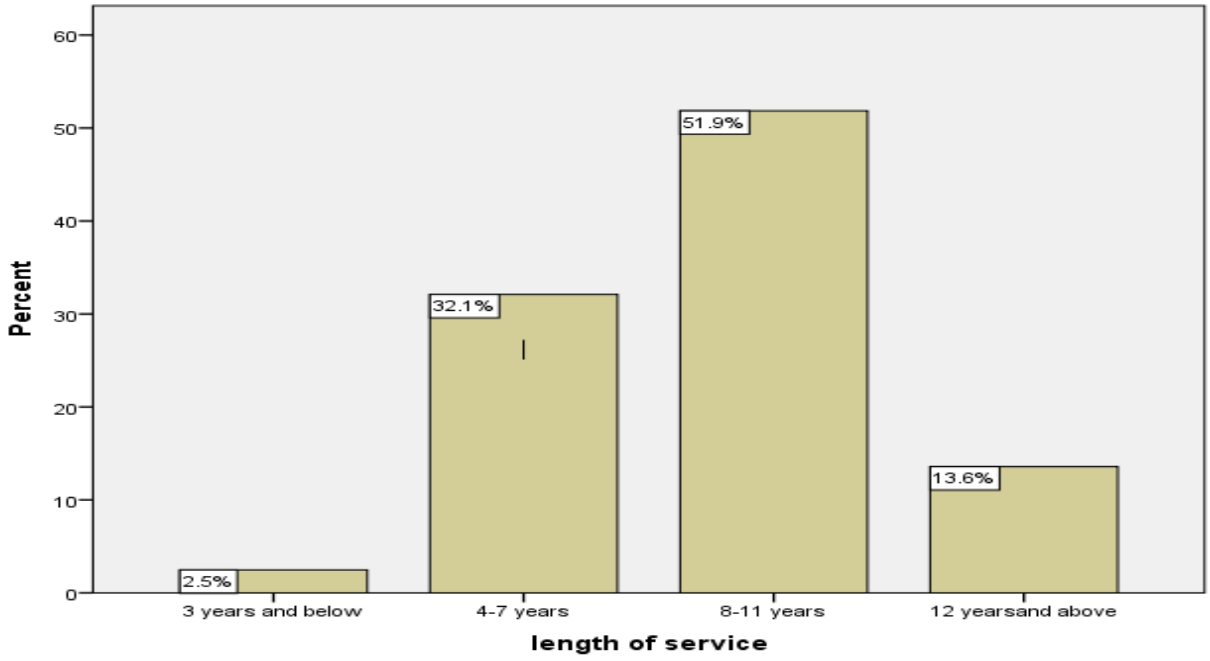


Figure 4.1: Work Experience

Source: Survey Data (2020)

Figure 4.1 illustrates among the respondents, those who served for a span of 8-11 years constituted majority at 51.9%. Respondents who had served for 3 years and below comprised of the smallest group at 2.5%. The rest of the respondents at 32.1 % and 13.6% had worked at Unga Group Limited for 4-7 years and 12 years and above respectively. The results indicate that the respondents could be able to give objective data for research purposes. According to O''Dell and Hubert (2011), knowledge is acquired through work experience and exit by experienced employees results in loss of technical knowledge on key procedures and competencies.

4.2.4 Position in the Company

This study also probed to uncover the ranks held by responders in the organization. Results of the data are displayed on table 4.4 below.

Table 4.4: Position in the Company

	Rate of occurrence	**Percentage (%)**
Middle Management	75	92.6
Top Management	6	7.4
Total	**81**	**100.0**

Source: Survey Data (2020)

In accordance with the findings, 92.6% of the respondents were in middle management, whereas 7.4% of them were in top level management positions. This is in line with the conventional hierarchical pyramid found in large organizations.

4.2.5 Academic Qualifications

The study assayed to uncover the highest rank of education obtained by the respondents as shown below in Table 4.5.

Table 4.5: Academic Qualifications

	Frequency	Percentage (%)	Cumulative percentage%
Certificate	8	9.9	9.9
Diploma	32	39.5	49.4
Bachelors	14	17.3	66.7
Postgraduate Studies	27	33.3	100
Total	**81**	**100**	

Source: Survey Data (2020)

The findings uncovered that 9.9% of the interviewees had the highest academic qualification as a certificate, 39.5% a diploma, 17.3% a bachelor's degree, 32.1% a postgraduate certification, 1.2% (one respondent) reported no post high school qualification. By the findings, 90.1% of the respondents had a diploma qualification. Notably, the academic qualifications with the highest frequencies are diploma and postgraduate certification. This may be because people who are educated tend to be competent. According to Bogdanowicz and Bailey (2002), employees bring to a company their prior education, experience, knowledge and skills which adds value to the organization

4.3 Knowledge Management Processes Capabilities at Unga Group Limited

4.3.1 Knowledge Acquisition

During the study, responders were requested to fill out a 5-point Likert scale determining degree of agreement with statements therein concerning knowledge acquisition at the company. Knowledge acquisition was evaluated in terms of resources for capturing new knowledge from consumers, use of feedback in projects to improve future projects, availability of processes for acquiring knowledge from products and services within the industry, and ability of the

organization to develop new knowledge from preexisting knowledge. Table 4.6 displays the responses

Table 4.6: Descriptive Statistics on Knowledge Acquisition

Statement	**n**	**Mean**	**Std. Deviation**
Organization boasts of resources used to capture latest knowledge amongst customers	81	3.8272	.77120
My organization uses feedback from projects and teams to improve subsequent projects	81	3.8025	.71449
Organization has processes for acquiring knowledge about new products/services within our industry	81	4.1481	.57252
My organization has ability to generate new knowledge from existing knowledge	80	4.2125	.52032
Aggregate score for knowledge acquisition		**3.9976**	**0.64463**

Source: Survey Data (2020)

Table 4.6 indicates a mean of 3.9976 on agreeableness with regard to knowledge acquisition strategies at Unga Group limited. The mean rounds off to 4 (agreement) on the 5-point Likert scale. The standard deviation of 0.64463 indicates that opinions range from 3 (neutral) to 4 (agree) with regard to knowledge acquisition strategies in use at the company.

Descriptive statistics of the sample data shows low variability around the mean, indicating general agreement among the respondents that data acquisition greatly contributes to the performance of Unga Group Limited. Mills and Smith (2010) asserts that capturing data from customers, use of feedback, and generation of new knowledge boosts an organization's competitive edge. Given the low variability of sample results from the mean, the sample mean makes a reliable estimator for the mean of population responses.

4.3.2 Knowledge Application

The effect of knowledge application to organizational performance in the case of Unga Group Limited was assessed based on the company's use of stored knowledge to solve newly encountered problems, the organization's drive in utilizing newly acquired knowledge, accessibility of knowledge to users, and the use of knowledge in improving efficiency. The study data are displayed in table 4.7.

Table 4.7: Descriptive Statistics for Knowledge Application

Statement	**n**	**Mean**	**Std. Deviation**
The company makes use of stored knowledge it has stored to solve new problems	81	4.0000	.59161
The company endeavors to acquire new knowledge and utilizes it	81	4.0988	.60425
My organization makes knowledge accessible to those who need it	81	4.1728	.58716
My organization uses knowledge to improve efficiency	81	4.4568	.52558
Aggregate score for knowledge application		**4.1821**	**0.57827**

Source: Survey Data (2020)

Table 4.7 indicates that an average score of 4.1821 and a standard deviation of 0.57827 on agreeableness with knowledge application measures being crucial to the performance of UNGA Group Limited. The aggregate score approximates to 4 (in agreement) on the 5-point Likert scale used within the study. Low standard deviation of 0.57827 as compared to mean indicates that most responses fall under 4 (agree) and 5 (strongly agree), which affirms that knowledge application is crucial to organizational performance.

From the survey findings, it is evident that responses on the role of knowledge application are bunched around the mean as depicted by the low standard deviation. In essence, this makes the mean a sufficient and reliable estimator for the population mean. Although there is strong agreement that Unga Group Limited utilizes knowledge in improving efficiency, the narrow variance from the aggregate mean of the responses affirms that knowledge application is crucial to performance. Notably, organizations that excel at applying knowledge rank better in performance metrics than those that do not (Bhatt, 2002). Furthermore, table 4.8 indicates that 98.7% of 79 respondents agree that knowledge application is critical in Unga Group Limited. From the responses, many respondents asserted that knowledge application helps in sharing and exchange of ideas resulting to improvement of operations.

Table 4.8: Importance of Knowledge Application to the Organization

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	78	96.3	98.	98.7
	NO	1	1.2	1.3	100.0
	Total	79	97.5	100.0	
Missing	System	2	2.5		
Total		81	100.0		

Source: Survey Data (2020)

4.3.3 Knowledge Transfer

Responders were asked to fill out a 5-point Likert scale on the degree of agreement with statements therein concerning knowledge transfer and organizational performance. Knowledge transfer was evaluated in terms of a process of information identification being in place, the existence of information evaluation and error correction processes, dissemination of crucial information to requisite departments and employees, continuous capturing of information to identify hidden knowledge, and there being open discussions to facilitate the exchange of ideas

Table 4.9: Descriptive Statistics on Knowledge Transfer

Statement	**n**	**Mean**	**Standard Deviation**
There exists a process of information identification	81	3.7654	.69411
A process exists where information is evaluation and mistakes corrected and eluded.	81	3.7407	.77100
Useful information is disseminated to necessary personnel and departments	81	4.2469	.68064
There is continuous capturing of information which facilitates identification of hidden knowledge	81	4.0123	.53605
There are open discussions to allow exchange of ideas and experiences among employees	81	4.3704	.62138
Aggregate score for knowledge transfer		**4.0271**	**0.66064**

Source: Survey data (2020)

Table 4.9 indicates an average score of 4.0271 and a standard deviation of 0.66064 on the 5-point agreeableness scale of knowledge transfer policies being in place in the company. The aggregate score approximates to 4 (Agreed) on the 5-point Likert scale used for survey. Standard

deviation of 0.66064 to the mean indicates most responses fall under 3 (neutral) and 4 (agree), which affirms that knowledge transfer is crucial to organizational performance.

From the findings above, the process of information identification and evaluation of knowledge and correction mistakes had relatively low averages and higher variability than other variables surveyed. Continuous capturing of knowledge, dissemination of knowledge to necessary departments, and discussions for exchange of experience and ideas had high means and low variability of responses. In total, the sampling data for knowledge transfer had low variance to the mean, making it dependable estimator for the true mean. In addition, the high average rank of the responses and narrow variance indicate that knowledge transfer is crucial in organization performance. This findings concurs to the finding of Gold et al., (2001) which asserts that knowledge transfer facilitate utilization of knowledge for more efficient innovation and better performance. In addition, table 4.10 indicates that 95.0 % of 80 respondents agree that there are open channels of information flow at UNGA Group Limited. Respondents agree that information is shared across different levels of management in a timely manner making it easier to implement action points.

Table 4.10: Availability of Open Channels of Information Flow

		Rate of response	Percent	Valid Percent	Aggregate Percent
Valid	YES	76	93.8	95.0	95.0
	NO	4	4.9	5.0	100.0
	Total	80	98.8	100.0	
Missing	System	1	1.2		
Total		81	100.0		

Source: Survey Data (2020)

4.3.4 Knowledge Protection

The study assessed the degree to which respondents believe that knowledge protection is crucial to performance based on controls to protect knowledge from theft and inappropriate use both internally and externally, use of technology to restrict access to sensitive knowledge, presence of procedures and policies for the protection of trade secrets, and communicating the importance of protecting knowledge to employees. The responses are shown in Table 4.11.

Table 4.11: Descriptive statistics for Knowledge Protection

Statement	n	Mean	Standard Deviation
Does organization has controls to protect knowledge from theft and inappropriate use inside and outside	81	4.3827	.69943
My organization has technology that restricts access to some sources of sensitive knowledge	81	4.4691	.65358
My organization has extensive policies and procedures for protecting trade secrets	81	4.5062	.59421
My organization clearly communicates the importance of protecting knowledge to employees	81	4.5556	.54772
Cumulative score for knowledge protection		**4.4784**	**0.62374**

Source: Survey Data (2020)

Table 4.11 indicates a mean of 4.4784 on the agreeableness scale of knowledge protection policies being applied with regard to Unga Group Limited. The mean rounds off to 4 (agreed) on the 5-point Likert scale. The standard deviation of 0.62374 indicates that opinions range from 4 (agree) to 5 (strongly agree) with regard to knowledge protection measures being applied at the company.

From the survey findings, it is evident that responses are tightly bunched around the mean as is illustrated by the standard deviation. In essence, this makes the sample mean a sufficient and reliable estimator for the population mean. Moreover, the average of responses shown above suggests that knowledge protection is a key contributor to performance. This is in line with Lee et al. (2005) who found out that knowledge protection is necessary for a firm to maintain its competitive advantage in the business environment.

4.4 Knowledge Management Infrastructure Capabilities and Performance of Unga Group Limited

4.4.1 Technology

The study evaluated the importance of technology as a component of the knowledge management capabilities of Unga Group Limited in terms of the availability of technology to monitor competition and business partners, use of technology in aiding the use and retrieval of knowledge by employees, use of technology to search for and generate new knowledge, and use of technology to enable employees to interact with persons within and outside company. Table 4.12 displays the responses.

Table 4.12: Descriptive statistics for the role of technology in knowledge management

Statement	**n**	**Mean**	**Standard Deviation**
My organization has technology that allows it to monitor its competition	81	3.9383	.67723
My organization uses technology that allows employees to retrieve and use knowledge about its products/processes	81	4.0864	.59577
My organization uses technology to generate new opportunities and search for new knowledge	81	4.0988	.62460
My organization uses technology that allows employees to interact with persons within and outside organization	81	4.1358	.64717
Accumulative score for technology		**4.06483**	**0.63619**

Source: Survey Data (2020)

Table 4.12 indicates mean of 4.06483 as well as standard deviation of 0.63619 of how much responder agree about the application of technology in knowledge management. The aggregate score approximates to 4 (Agree) and the standard deviation of 0.63619 indicates that most

responses fall under 3 (neutral) and 4 (agree), which affirms that technology is a key component of the knowledge management infrastructure at the company. From table 4.12 the findings are clustered around the mean, with the low standard deviation indicating that the results can be used to infer the average responses for the population. The findings also confirm that the respondents find technology to be vital to the knowledge management infrastructure capabilities of Unga Group Limited. This result is consistent with Powell and Dent-Micallef (1997) observation that information technology facilitates and supports knowledge management through creation, transfer, storage, and protection of knowledge resources of an organization.

4.4.2 Organizational Structure

This study looked into organizational structure with regard to performance of Unga Group Limited in terms of accessibility to information, facilitation of discovery and creation of new knowledge, management's examination of errors and mistakes in knowledge sources, and facilitation of interdepartmental knowledge exchange. Table 4.13 outlines the findings of the study.

Table 4.13: Descriptive statistics for the role of structure in knowledge management

Statement	n	Mean	Std. Deviation
In my organization's structure, employees can readily access information if need be	81	4.0988	.70009
My organization structure facilitates discovery and creation of new knowledge	81	4.0000	.61237
In my organization managers frequently examine knowledge sources for errors/mistakes	81	3.9383	.63925
My organizational structure has processes to facilitate knowledge exchange across departments	81	4.2840	.59654
Aggregate score for structure		**4.0803**	**0.63706**

Source: Survey Data (2020)

Table 4.13 presents 4.0803 as mean, 0.63706 standard deviation about the level of agreement by responders on role of organizational structure in knowledge management. The aggregate score approximates to 4 (Agree) and the standard deviation of 0.63706 shows that most responses fall under 3 (neutral) and 4 (agree), which confirms that most respondents agreed on the importance of organizational structure to knowledge management. In accordance with the aggregate standard deviation, the study findings are bunched around the mean revealing that the sample mean can be used as a reliable estimator for the population mean. Even though the respondents do not all agree that managers check knowledge sources for errors and mistakes, there is agreement that organizational structure is critical to performance.

4.4.3 Organizational Culture

The research assessed on the role of organizational culture in relation to knowledge management in the company in terms of the understanding the employees have on the importance of knowledge to performance and success, how valued employees are for their expertise, employees being encouraged to interact, share and develop ideas, and management's appreciation of the role of knowledge in the company's success. The responses are outlined in table 4.14.

Table 4.14: Descriptive Statistics for the Role of Culture in Knowledge Management

Statement	**n**	**Mean**	**Standard Deviation**
In my organization, employees understand the importance of knowledge to corporate success and performance	81	4.1111	.54772
In my organization, employees are valued for their individual expertise	81	3.9136	.65570
Employees are encouraged to interact, share, and develop ideas	81	4.3580	.61864
In my organization, senior management clearly supports the role of knowledge in the success of the company	81	4.3704	.55777
Aggregate score for culture		**4.1883**	**0.59496**

Source: Survey Data (2020)

Table 4.14 displays 4.1883 mean 0.59496 standard deviation about responder's level of agreement about the role of culture in knowledge management. The aggregate score approximates to 4 (Agreed) and the standard deviation of 0.59496 shows that most responses fall under 4 (agree) and 5 (strongly agreed), which confirms that most respondents agree on the purpose of culture in knowledge management.

From the findings above, the high mean and low variability make for a stable reliable estimator on the role of culture in the performance of Unga Group Limited. Respondents agree that culture has a strong positive relationship with organizational performance. This is in line with Sin and Tse (2000) who found out that positive cultural change such as innovation, improved service quality, and customer orientation enhance organizational performance.

4.5 Top Level Management Commitment to Knowledge Management Practices at Unga Group Limited

The study investigated the influence of top level management commitment to knowledge management practices on the performance of Unga Group Limited. This was evaluated in terms of the company having knowledge management in its strategic plan, management pioneering and driving knowledge management capabilities adoption and use, having training and skill development on KMCs, and the company rewarding staff for generating, sharing and utilizing knowledge. Table 4.15 shows the result of the survey.

Table 4.15: Descriptive Statistics for the Relationship between Top level Management Support to KM practices

Statement	n	Mean	Std. Deviation
My company has knowledge management on its strategic plan	81	4.3457	.57360
Company management has pioneered and driven knowledge management capabilities adoption and use	81	4.3210	.52027
My company has training and skill development on knowledge management capabilities	81	4.3951	.56301
Our company rewards staff for knowledge generation, sharing and utilization	81	4.1481	.70907
Aggregate Score for Senior Management Commitment		**4.3025**	**0.59149**

Source: Survey Data (2020)

Table 4.15 indicates a mean of 4.3025 on the agreeableness scale of the influence of top level management commitment to knowledge management application with regard to production at UNGA Group limited. Mean rounds off to 4 (agree) on the 5-point Likert scale. Standard deviation of 0.59149 indicates that opinions range from 4 (agree) to 5 (strongly agree) with regard to managerial support for KMCs at the company.

From the survey findings, it was surmised that Unga Group Limited has knowledge management in its strategic plan, trains and develops knowledge management skills, encourages the use and adoption of knowledge management capabilities and rewards employees for generating, utilizing and sharing knowledge. It is in those areas that top level management commitment to KM practices influences performance. This is consistent with Weil and Woodall (2004) who found out that top management commitment to knowledge management practices creates a spirit of cooperation which necessitates a cultural change through improvement in quality, greater productivity, and efficiency.

4.6 Organizational Performance at Unga Group Limited.

The study looked into the impact of Unga Group Limited's knowledge management capabilities (KMCs) on its performance with regard to development of new products, faster responsiveness to market setbacks, improvement of current products, development of new operations, improvement of presently existing processes, and enhancement in regard to retaining customers. Table 4.16 shows the interviewees' responses.

Table 4.16: Descriptive Statistics for the Contribution of KMCs to Performance

	N	Mean	Std. Deviation
KMC has led to development new products	81	4.0247	.90796
KMC increases the rate of response to market setbacks	81	4.2593	.62805
KMC improves presently existing products	81	4.2963	.55777
KMC gives rise to new operations	81	4.3457	.59499
KMC improves existing application	81	4.2840	.55305
KMC helps in retaining customers	81	4.2716	.68943
Aggregate Score		**4.2469**	**0.65521**

Source: Survey Data (2020)

Table 4.16 indicates an average score of 4.2469 and a standard deviation of 0.65521 on the extent to which respondents agree on the effect of KMCs on the performance of the company. The aggregate result is comparable to 4 (Agree) on a 5-point Likert scale, and standard deviation of 0.65521 indicates that most responses fall under 4 (agree) and 5 (strongly agree), which confirms that knowledge management capabilities are critical to organizational performance.

According to the study results, it can be ascertained that KMCs have resulted to new products and processes, increased the rate of response, improved existing products and processes, and enhanced customer retention. Notably, there was general consensus that KMCs positively affect organizational performance. Table 4.16 indicates that all of 80 respondents who responded to the question whether knowledge management capabilities play crucial role in the performance of Unga Group Limited concurred with the statement.

Table 4.17: Do KMCs play a key role in the performance of Unga Group Limited

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	80	98.8	100.0	100.0
	NO	0	0.0	0.0	100.0
	Total	80	98.8	100.0	
Missing	System	1	1.2		
Total		81	100.0		

Source: Survey Data (2020)

According to research data, the respondents asserted that KMCs play a critical role in performance by enhancing customer satisfaction since it allows sharing of ideas, storage of tactical knowledge, flow of communication, adherence to strategic plan and commitment by top management that lead to product improvement.

4.7 Regression Analysis

Multiple regression analysis was employed to describe the relationship between knowledge management capabilities (KMCs) and performance at Unga Group Limited. The functional relationship between knowledge management processes, knowledge management infrastructure and top level management commitment to performance as per the findings of the study are described below.

4.7.1 Model Summary

Table 4.18: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.547[a]	.299	.272	.3159323	.299	10.951	3	77	.000

a. **Predictors:** (Constant), top level management commitment , knowledge management processes, knowledge management infrastructure

Source: Survey Data (2020)

The model fit shown on table 4.18 indicates how best model equation agrees with the data. Adjusted R^2 value of 0.272 means that at a confidence level of 0.95, 27.2% of variations in the performance of Unga Group Limited are attributable to knowledge management (KM) processes, knowledge management infrastructure, and top level management commitment to knowledge management practices. The remaining 72.8% of variations in the performance of Unga Group Limited are due to other factors. These factors present an opportunity for further study.

4.7.2 ANOVA Analysis

ANOVA analysis between performance and KM processes, KM infrastructure, and top level management commitment to KM practices was done at $\alpha=0.05$

Table 4.19: ANOVA

Model		Sum of Squares	df	Mean Square	F	Significance
1	Regression	3.279	3	1.093	10.951	.000[b]
	Residual	7.686	77	.100		
	Total	10.965	80			

a. Dependent Variable: Performance

b. Predictors: (Constant), top level management commitment, KM processes, KM infrastructure

Source: Survey Data (2020)

Since F-calculated (3, 77) = 10.951 and calculated probability of 0.0000 is higher than the F-tabulated of 2.72, the model is concluded to be statistically significant.

4.7.3 Coefficient of Determination

Table 4.20: Coefficients of Determination

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.505	.520		2.896	.005
	KM processes	.460	.146	.398	3.163	.002
	KM infrastructure	.211	.146	.204	1.446	.152
	Top level management commitment	.381	.113	.342	1.944	.004

Source: Survey Data (2020)

From the analysis, the study model was:

$Y=1.505 + 0.460 X_1 + 0.211 X_2 + 0.381 X_3$

From Table 4.20, organizational performance was 1.505 when KM processes, KM infrastructure, and top level management commitment to KM practices held at zero. Holding all other factors constant, KM processes accounted for 0.460 in every unit change of performance, KM infrastructure accounted for 0.211 of every unit change in performance at Unga Group Limited and top level management commitment to KM practices contributed 0.381 in every unit change in performance in the company.

The findings indicated that knowledge management processes had the greatest impact on performance, followed by top level management commitment to knowledge management practices and knowledge management infrastructure had the lowest impact on performance of the three variables. This is in agreement with Gold et al (2001) argument about knowledge management processes affecting performance by ensuring that an organization has the right policies and strategies in place, knowledge management infrastructure impacts performance since it provides the tools for actualizing strategies and policies, and top level management commitment to knowledge management practices influence performance by setting standards for the consistent application of KM practices.

4.8 Discussion

The first aim of the survey was to determine the relationship between knowledge management processes capabilities and performance of milling companies with focus on Unga Limited. The elements of knowledge management processes namely knowledge acquisition, knowledge application, knowledge transfer and knowledge protection were found to be crucial to the performance of Unga Group Limited. This was in accordance with what the study anticipated. Statistical analysis of the study data confirmed that there exists a positive linkage between performance and knowledge management processes. The second objective established association linking knowledge management infrastructure and performance of Unga Group Limited. All the elements of knowledge management infrastructure namely technology, organizational structure, and organizational culture were found to have a significant effect on the performance of Unga Group Limited. Having good management infrastructure was found to

correlate with better performance as this facilitated the conversion of knowledge into financial outcomes.

The final objective of the study was establishing the impact of top level management commitment to knowledge management practices on the performance of Unga Group Limited. Statistical analysis confirmed that top level management support for knowledge management practices positively impacts performance of an organization. This is in accordance with the expectations of the study and the statistical model used. In addition all interviewed respondents strongly agreed that knowledge management capabilities play a crucial role to the performance of the company.

CHAPTER 5

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This section entails a sum-up and conclusion as well as research outcomes made from the research. It also provides suggestions for policy as well as practice and proposal for further study.

5.2 Summary of findings

The research was pursued to establish the impact of KMC on accomplishment and performance performance of milling companies. This study found that knowledge management capabilities and top management commitment to KM practices are statistically significant and influence performance. Therefore, the study goals were realized. This study established that Unga Group Limited has resources to capture new knowledge and utilized stored knowledge to solve problems. In addition, Unga Group Limited transfers knowledge to the necessary personnel and department. Knowledge is protected from inappropriate use and access. The company has policies and procedures that guide usage of information and protects trade secret. The study established that Unga Group Limited uses technology to create, share, and manage knowledge which allows it to relate and reach out to consumers. The study ascertained that technology influences on the adoption as well as usage of knowledge management in milling companies. The relationship between technology and knowledge management was found to be statistically significant which in turn improved performance. Technology facilitates knowledge capturing, sharing protection, and organizational processes which enhance learning and competitive

advantage. Access to relevant technology and policies that encourage usage of information technology directed towards increasing knowledge management pursuits within organization.

The study found out that organizational culture influences the use of knowledge management capabilities at Unga Group Limited. Culture was viewed as important because it generated the context for social interaction establishing how knowledge is portioned out, created, legitimized, as well as distributed in organizations. Congruous performance of KM undertakings occurs through organizational culture that recognizes, encourages, and rewards KM activities. Organizational structure was found to have an influence on performance. A firm where employees can easily access, share and exchange knowledge leads to feelings of obligation and reciprocation on the part of the employee which enhances productivity.

The study established that top management commitment to knowledge management practices influences production. The connection linking top management commitment and production was ascertained to be statistically significant. The top management needs to live by example and develop a culture that can inspire employees to generate, portion out, and leverage knowledge. The spirit of leadership commitment obliges one to know when to develop a culture that supports business aims. Managers need to develop and promote a culture that promotes knowledge management through training, rewards, and provision of necessary resources.

5.3 Conclusion

In conclusion, the research ascertained that knowledge management capabilities influence performance in milling companies. On the basis of study outcomes, one can infer that knowledge application, acquisition, application, transfer, organizational structure, culture, technology, and top management commitment to KM practices influence performance at Unga Ground Limited.

Knowledge is a strategic resource and organizational asset which is accumulated through experience, exchange of information and communication. The study concludes that knowledge management capabilities are important to milling companies because it allows them to remain competitive in a dynamic market. Unga Group Limited uses information to create knowledge management to improve productivity and business performance. Organizational performance is of strategic in many firms. The study concludes that culture and structure of firm is critical in generation and division of knowledge in an organization. Organizational structure has incentive systems that reward knowledge creation and sharing which intrinsically motivates employees to develop a culture that supports knowledge management capabilities. Technology fails to directly affect performance but it is important to facilitating knowledge management capabilities.

The study concludes that top management commitment to KM practices influences performance. Managers should provide for the communication of ideas knowledge and experience ,encourage teamwork and generation of ideas through, meetings, workshops, and open forums. The researcher concludes that having knowledge management on the strategic plan allows the top managers to set aside resources to promote KM activities.

5.4 Recommendations for Policy and Practice

Results of the research possess a significant implication on policy and practice deduced with an aim of intensifying knowledge management capabilities at Unga Group Ltd. as well as milling companies within Kenya. Knowledge management process capabilities particularly acquisition, application, transfer and protection were found to positively influence performance. Milling companies ought to intensify practices connected with the above components to make knowledge more available and its flow enhanced to facilitate its application. Furthermore, knowledge

management infrastructure capabilities were found to have a significant impact on performance. Organization structure expedites transformation, conveyance and implementation of knowledge. Culture model employees conduct enabling them to manage knowledge within the backdrop of organizational production. Technology enhances the integration of knowledge and information in an entity.

The commitment of top management to knowledge management practices influences planning of good policies and procedures. Strategic plans helps in guiding the implementation of knowledge management processes. Employee training on knowledge management has a positive correlation to knowledge sharing. The management of Unga Group Ltd. should intensify all activities relating to KMCs. This will aid in enhancing comprehension and movement or transfer of knowledge (explicit) into its implementation (tacit knowledge).

5.5 Recommendations for Further Study

The research probed on knowledge management capabilities and performance in Unga Group Ltd. In respect to this, results and deductions are limited to Unga Group Ltd. It is recommended therefore, that future similar researches should be conducted in other milling companies within Kenya to find out similarity of results for broader generalization of the findings.

REFERENCES

Alavi, M., & Leidner, D. E. (2001). Knowledge management and knowledge management systems: Conceptual foundations and research issues. *MIS quarterly*, 107-136.

Ambula, R. (2015). *Learning organization, knowledge management, employee outcomes and performance of large manufacturing firms in Kenya.* (Doctoral dissertation, University of Nairobi).

Armstrong, M. (2000). *A handbook of personnel management practices*. London: Kogan Page Limited.

Awad, E. M. & Ghaziri, H. M. (2003). *Knowledge management.* New Jersey: Prentice Hall.

Barba-Sánchez, V., & Atienza-Sahuquillo, C. (2010). Integration of the environment in managerial strategy: Application of the resource-based theory of competitive advantage, dynamic capabilities and corporate social responsibilities. *African Journal of business management*, *4*(6), 1155-1165.

Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of management*, *17*, 99-120.

Bhatt, G. D. (2002). Management strategies for individual knowledge and organizational knowledge. *Journal of knowledge management*, *6*(1), 31-39.

Borg, W. R., & Gall, M. D. (1989). *Educational research: An introduction* (5th ed.). New York, NY: Longman. ISBN: 0-801-0334-6

Cheruiyot, C., Jagongo, A., & Owino, E. (2012). Institutionalization of knowledge management in manufacturing enterprises in Kenya: A case of selected enterprises. *International Journal of Business and Social Sciences,* Vol 3.

Chuang, S. H. (2004). A resource-based perspective on knowledge management capability and competitive advantage: An empirical investigation. *Expert systems with applications*, *27*(3), 459-465.

Cohen, W. M., & Levinthal, D. A. (1989). Innovation and learning: The two faces of R & D. *The economic journal*, *99*(397), 569-596.

Daud, S., & Yusoff, W. F. W. (2010). Knowledge management and firm performance in SMEs: The role of social capital as a mediating variable. *Asian Academy of Management Journal*, *15*(2).

Davenport, T. H. (1998). *Knowledge management at Ernst & Young.* Retrieved from http://www. bus. utexas. edu/kman/E&Y.

Gay, L.R. & Diehl, P.L. (1992). *Research methods for business and management*. New York: Macmillan Publishing Company.

Gold, A. H., Malhotra, A., & Segars, A. H. (2001). Knowledge management: An organizational capabilities perspective. *Journal of management information systems*, *18*(1), 185-214.

Gordon, B. 1992. Are Canadian firms under investing in training? *Canadian Business Economics 1*(1), 25–33.

Helfat, C. E., & Winter, S. G. (2011). Untangling dynamic and operational capabilities: Strategy for the (N) ever-changing world. *Strategic management journal*, *32*(11), 1243-1250.

Heisig, P., Suraj, O. A., Kianto, A., Kemboi, C., Perez Arrau, G., & Fathi Easa, N. (2016). Knowledge management and business performance: global experts' views on future research needs. *Journal of knowledge management*, *20*(6), 1169-1198.

Kagiri, C. M. (2008). *A study of knowledge management application in property management in Kenya*. (Unpublished master's thesis). University of Nairobi, Kenya.

Kalya, S. K. (2013). Competitive strategies adopted by Winnie's pure health products ltd in Kenya (Doctoral dissertation, University of Nairobi).

Kerridge, I., Lowe, M. & McPhee, J. (2005). Ethics and Law for the Health Professions (2nd ed.). Sydney: The Federation Press.

Kiessling, T., Richey, R. G., Meng, J., & Dabic, M. (2009). Exploring knowledge management to organizational performance outcomes in a transitional economy. *Journal of world business, 44*(4), 421 – 433.

King, W. R. (2001). Strategies for creating a learning organization. *Information Systems Management, 18*(1), 12-20.

Kiseli, J. M., Senaji, T. A., & Eng, R. (2016). Effect of knowledge management capabilities on competitive advantage in the Kenya hospitality industry: The case of five star hotels in Kenya. *International Academic Journal of Human Resource and Business Administration, 2*(2), 106-129.

Kovačić, A., Bosilj Vukšić, V., & Lončar, A. (2006). A process-based approach to knowledge management. *Economic research-Ekonomska istraživanja*, *19*(2), 53-66.

Lebans, M & Euske, K. (2006). A conceptual and operational delineation of performance. *Business performance measurement: Unifying theories and integration practice*, 125-139. 10.1017/CBO9780511805097.008.

Lee & Yang (2000). '*Knowledge value chain', Journal of Management Development*, Vol. 19, No. 9.

Lee, H & Choi, B. (2003). Knowledge management enablers, processes, and organizational performance. *Journal of Management Information Systems, 20*, 179-228.

Lee, K. C., Lee, S., & Kang, I. W. (2005). KMPI: measuring knowledge management performance. *Information & management, 42*(3), 469-482.

Liao, S. H., & Wu, C. C. (2009). The relationship among knowledge management, organizational learning, and organizational performance. *International journal of business and management, 4*(4), 64-76.

López, S. P., Montes, J. M., & Ordás, C.J. (2005). Organizational learning as a determining factor in business performance. *The learning organization*, *12*(3), 227-245.

Mills, A. M., & Smith, T. A. (2011). Knowledge management and organizational performance: a decomposed view. *Journal of knowledge management*, *15*(1), 156-171.

Moon, H., & Lee, C. (2014). The mediating effect of knowledge-sharing processes on organizational cultural factors and knowledge management effectiveness. *Performance Improvement Quarterly*, *26*(4), 25-52.

Mosoti, Z., & Masheka, B. (2010). Knowledge Management: The Case Kenya. *The Journal of LAnguage,Technology & Entrepreneurship in Africa, 2(1).*

Mugenda, A. & Mugenda, O. (2003). *Readings in research methods: Quantitative and qualitative* approaches. Nairobi: African Centre for Technology Studies.

Mugenda, O. M., & Mugenda, G. A. (1999*). Research Methods: Qualitative and Quantitative Approaches.* Nairobi: Acts Press.

Nguyen, Q. & Neck, P. (2009). Knowledge management as dynamic capabilities: Does it work in emerging less developed countries*? Journal of knowledge management, 3*(3), 505-520.

O"Dell, C., & Hubert, (2011). *The new Edge in Knowledge: How knowledge management is changing the way we do business. USA: John Wiley.*

Onyango, D. A. (2016*). Knowledge management capabilities and performance of international humanitarian organizations in Kenya*. (Doctoral dissertation, University of Nairobi).

Orodho, A. J., & Kombo, D. K. (2002). *Research methods*. Nairobi: Kenyatta University, Institute of Open Learning.

Orodho, A.J. (2003). *Essentials of educational and social sciences research method*. Nairobi: Masola Publishers.

Powell, T. C., & Dent-Micallef, A. (1997). Information technology as competitive advantage: The role of human, business, and technology resources. *Strategic management journal*, *18*(5), 375-405.

Richardson, G. B. (1972). The organisation of industry. *The economic journal*, *82*(327), 883-896.

Seleim, A., & Khalil, O. (2007). Knowledge management and organizational performance in the Egyptian software firms. *International Journal of Knowledge Management (IJKM)*, *3*(4), 37-66.

Sapsford, R. and Japp, V. (2006). *Data Collection and Analysis* (2nd Ed.). Sage Publications Ltd.

Senge, P. M. (1990). The fifth discipline, the art and practice of the learning organization. *Performance+ Instruction*, *30*(5), 37-37.

Sin, L. Y., & Tse, A. C. (2000). How does marketing effectiveness mediate the effect of organizational culture on business performance? The case of service firms. *Journal of Services Marketing*, *14*(4), 295-309.

Webb, B., & Schlemmer, F. (2006). *Resilience as a source of competitive advantage for small information technology companies. In the transfer and diffusion of information technology for organizational resilience.* Springer US.

Wernerfelt, A. B. (1984). Resources-based view of the firm. *Strategic management journal* 5, 171–180

Weil, A., & Woodall, J. (2005). HRD in France: the corporate perspective. *Journal of European Industrial Training*, *29*(7), 529-540.

Zheng, W. (2005). A conceptualisation of the relationship between organizational culture and knowledge management. *Journal of Information & Knowledge Management*, *4*(02), 113-124.

Zheng, W., Yang, B., & McLean, G. N. (2010). Linking organizational culture, structure, strategy, and organizational effectiveness: Mediating role of knowledge management. *Journal of Business research*, *63*(7), 763-771.

Penrose, E. T. (1959). The Theory of the Growth of the Firm. New York: John Wiley.

APPENDICES

Appendix I: Letter of Introduction

Teresia Njoki Kamau
P.O Box 283, 00232
RUIRU
15th November 2019

Dear Sir/Madam,

SUBJECT: PERMISSION TO COLLECT DATA

This letter is in relation to a research project am writing on Knowledge Management Capabilities and Performance of Milling Companies: A case of Unga Group Limited at Kenyatta University School of Business Studies.

In partial fulfilment of the requirements of MBA program I would like to ask for your help in filling out the distributed questionnaire with an assurance that the data obtained will be treated with utmost confidentiality and exclusively used for academic purposes. I will avail a copy of this letter to you and your organization on demand. I would greatly appreciate your assistance.

Thank you.

Yours Sincerely,

Teresia Kamau

Appendix II: Questionnaire

Section A: General Information

Instructions

Please mark or write in the spaces provided appropriately.

1. What is your gender?

   Male [ ] Female [ ]

2. What is your age?

   21 - 30 [ ] 31 – 40 [ ] 41 – 50 [ ] 51 and above [ ]

3. What is your length of service within company?

   3 years and below [ ]

   4-7 years [ ]

   8-11 years [ ]

   12 years and above [ ]

4. Your rank in the company?

   Top management ( ) Middle level management ( )

5. Indicate your highest academic attainment.

   Certificate [ ] Diploma [ ] Bachelor's degree [ ] Post graduate [ ]

SECTION B: Effects of knowledge management process capabilities on performance of UNGA Group Limited

6. To what extent do you agree with the statements given on the knowledge acquisition in your company. Tick the appropriate cell or box against each statement.

Knowledge Acquisition					
	Strongly disagree	Disagree	Moderate	Agree	Strongly agree
Does your organization has resources for capturing new knowledge from customers					
My organization uses feedback from projects and teams to improve subsequent projects					
My organization has processes for acquiring knowledge about new products/services within our industry					
Does your organization has potential to generate new knowledge from current knowledge					

7. Indicate the extent to which you agree with statements below on knowledge application in the company?

Knowledge Application					
	Strongly disagree	Disagree	Moderate	Agree	Strongly agree
This company makes use of the knowledge that it has stored to solve new problems					
The company endeavors to acquire new knowledge and utilizes it					
Knowledge is made accessible to those who need it					
Knowledge is used to improve efficiency					

8. Is knowledge application critical in your organization? Yes [ ] No [ ]

Please explain? ……

9. Tick your level of agreement with the statements given below on knowledge transfer within your company?

Knowledge Transfer					
	Strongly disagree	Disagree	Moderate	Agree	Strongly concur
There exist a system of information identification					
System of evaluating information and avoidance of comparable errors is available					
Applicate information is ddiffused to the necessary personnel and departments					
There is continuous capturing of information which facilitates identification of hidden knowledge					
There are open discussions that allow exchange of ideas and experience among employees					

10. Are there open channels of information flow? Yes [ ] No [ ]

Kindly elaborate? ……..

11. How would you agree and rate the following statements on the knowledge protection within your company?

Knowledge Protection					
	Strongly disagree	Disagree	Moderate	Agree	Strongly agree
There are controls for protection of knowledge from theft and inappropriate usage within and outside the organization					
Technology that restricts access to some sources of sensitive knowledge is available.					
There are extensive policies and procedures for protection of trade secrets					
My organization clearly communicates the importance of protecting knowledge to employees					

SECTION C: Effects of knowledge management infrastructure capabilities on performance of UNGA Group Limited

12. Tick your level of agreement with the statements given on technology within your company.

Technology					
	Strongly disagree	Disagree	Moderate	Agree	Strongly agree
technology that allows monitoring of competition and business partners is available					
My organization uses technology that allows employees to retrieve and use knowledge about its products/processes					
My organization uses technology to generate new opportunities and to search for new knowledge					

My organization uses technology that allows employees interact with persons within and outside the organization					

13. Do you agree with following statements on organizational structure of the company?

Organizational Structure					
	Strongly disagree	Disagree	Moderate	Agree	Strongly agree
Organization structure allows employees to readily access information if need be					
My organization structure facilitate discovery and creation of brand new knowledge					
There is frequent examination of knowledge sources for errors/mistakes by managers.					
organization structure accommodates processes that facilitate knowledge exchange across departments					

14. To what extent do you agree with following statements on the culture of the organizational in the company?

Organizational Culture					
	Strongly disagree	Disagree	Moderate	Agree	Strongly agree
Employees understand the importance of knowledge to corporate success and performance					
In my organization, employees are valued for their individual expertise					
Worked are inspired to interact, share and develop ideas					

Senior managers approves the role of knowledge company's benefit					

Section C: Influence of top management commitment to KM practices in Unga Group Ltd.

15. How would you rate the following statements when comparing the organizational performance of the company in terms of top management commitment to KM practices?

	Strongly disagree	Disagree	Moderate	Agree	Strongly agree
My company possesses knowledge management on its strategic plan					
Company management has pioneered and driven knowledge management capabilities adoption and use					
My company has training and skill development on knowledge management capabilities					
Our company rewards staff for knowledge generation, sharing, and utilization					

Section D: Performance

16. Indicate whether you agree with the given statements.

	Strongly disagree	Disagree	Moderate	Agree	Strongly agree
KMC has culminated to new products					
KMC accelerate the rate of response to market crisis					
KMC enhances products					
KMC enhances existing processes					

KMC improves existing processes					
KMC improves customer retention or satisfaction?					

17. In your view, do knowledge management capabilities play a crucial role in the performance?

Yes [ ] No [ ]

Give details? **.....**