KNOWLEDGE MANAGEMENT STRATEGIES AND PERFORMANCE OF COMMERCIAL BANKS IN KENYA

JANE NJERI NJENGA

DOCTOR OF PHILOSOPHY

(Human Resource Management)

JOMO KENYATTA UNIVERSITY

OF

AGRICULTURE AND TECHNOLOGY

2022

Knowledge Management Strategies and Performance of Commercial Banks in Kenya

Jane Njeri Njenga

A Thesis Submitted in Partial Fulfilment of the Requirements for the Degree of Doctor of Philosophy in Human Resource Management of the Jomo Kenyatta University of Agriculture and Technology

2022

DECLARATION

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

Signature…………………………….………………. Date ………………………

      Jane Njeri Njenga

This thesis has been submitted for examination with our approval as University Supervisors.

Signature…………………………….………………. Date ………………………

      Professor Karanja Ngugi, PhD

      JKUAT, Kenya

Signature…………………………….………………. Date ………………………

      Professor Romanus Odhiambo, PhD

      JKUAT, Kenya

DEDICATION

I give thanks to the Almighty God for having brought me this far. This thesis is dedicated to my ever loving and supportive family who have demonstrated their sincere and relentless support towards creating an enabling environment to enable me further my studies.

ACKNOWLEDGEMENT

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

ABBREVIATIONS AND ACRONYMS

AFDB	African Development Bank
AFI	Alliance for Financial Inclusion
ANOVA	Analysis of Variance
BP	Business Performance
BPM	Business Process Management
CBN	Central Bank of Nigeria
CBR	Central Bank Rate
CEO	Chief Executive Officer
CFA	Confirmatory Factor Analysis
CoP	Community of Practice
CR	Concentration Ratio
EFA	Exploratory Factor Analysis
GCC	Arab Gulf Co-operation Council
GLM	General Linear Model
H_a	Alternate Hypothesis
H_o	Null Hypothesis
HCM	Human Capital Management
HRIS	Human Resources Information Systems

IC	Intellectual Capital
IC-KM	Intellectual Capital Knowledge Management
ICT	Information Communication Technology
IPR	Intellectual Property Right
IS	Information System
IT	Information Technology
JLP	Joint Learning Programme
JM	Jeddah Municipality
KBE	knowledge Based Economies
KBT	Knowledge-Based Theory
KBV	Knowledge Based View
KE	Knowledge Economy
KIBS	Knowledge-Intensive Business Services
KM	Knowledge Management
KNBS	Kenya National Bureau of Statistics
MOU	Memorandum of Understanding
NACOSTI	National Commission for Science Technology and Innovation
NPLs	Non-Performing Loans
NSE	Nairobi Securities Exchange

OC	Organizational Capabilities
OKMS	Organization Knowledge Management Strategies
OLC	Organizational Learning Capabilities
OLS	Ordinary Least Squires
PCA	Principal Components Analysis
PPP	Progress, plans, progress, and problems
PRs	Property Rights
Q-Q	Quantile by Quantile
R&D	Research and Development
RBT	Resource Based Theory
RBV	Resource Based View
RLS	Reweighted Least Squares
ROA	Return on Assets
ROE	Return on Equity
SCP	Structure-Conduct-Performance
SHRMPs	Strategic Human Resource Management Practices
SEM	Structural Equation Model
SET	Social Exchange Theory
SME	Small and Medium Enterprises

THs	Technological Hubs
UAE	United Arab Emirates
VIF	Variance Inflation Factor model
VUCA	Volatile, Uncertain, Complex and Ambiguous

DEFINITION OF TERMS

Boundary spanner   Boundary-spanning is defined as a set of communication and co-ordination of activities which is performed by employees (boundary-spanners) within an organization and between organizations. The objective is to integrate activities across multiple cultural, institutional and organizational contexts" (Schotter, Mudambi, Doz, & Gaur, 2017).

Communities of practice   refer to groups of people who genuinely care about each other. They interact regularly and are united by a common goal. The success of the group involves mutual engagement popularly referred to as thinking together (Pryko, Dorfler, & Eden, 2017).

Explicit-oriented knowledge management strategy refers to extracting explicit knowledge for its storage in knowledge databases, where it can be accessed and re-used simply by employees in the organisation (Yousif, 2013).

External-oriented organizational knowledge This is the knowledge that lies beyond the boundaries of a firm (Criscuolo, Laursen, Reichstein & Salter, 2018).

Human capital   Refers to the personal knowledge, skills, experience, and capabilities of workers" (Ramadan, Dahiyat, Bontis, & Al-dalahmeh, 2017).

Job satisfaction   is a gratifying emotional state that arises from ones' appraisal for his/her job (Colquitt et al., 2017).

Knowledge   is a combination of personal judgment, skills, competencies, and capabilities (Mahdi, Nassar & Almsafir, 2019).

Knowledge culture A company's knowledge culture refers to a set of knowledge-related behaviors (Rothberg & Erickson, 2017).

Knowledge management strategy is a detailed approach outlining how an organization intends to implement knowledge management principles and practices in order to achieve the vision and the mission (Gitonga, 2015).

Organizational knowledge refers to capacity of members of an organization to develop differentiation in the process of their work through collective participation and understanding (Marques et al., 2019).

Organizational performance is a multi-faceted construct that compares the actual output against indented output (Katou, 2021).

Performance Laihonen (2013) defines performance in an organization as the organizations' ability to achieve its set objectives.

Strategic HRM entails the deliberate quality practices and activities that are vertically linked with organizational business strategies. Such strategies are parallel with each other to attain a strategic fit (Uysal, 2019).

Tacit knowledge Knowledge that is highly personal, context specific, and therefore, hard to formalize or communicate (Tacit knowledge is personalized and hard to formalize (Chen et al., 2018).

Tacit-oriented (or human-oriented KM strategy) refers to the movement and transmission of tacit information from one individual to another. The tactic internalizes and puts into practice explicit knowledge. skills, prowess,

expertise, and understanding in a particular field (Massingham, 2018; Levallet & Chan, 2019).

ABSTRACT

The purpose of this study was to understand the relationship between knowledge management strategies and performance of commercial banks in Kenya. Specifically, the researcher examined tacit-oriented, explicit-oriented, internal oriented and external- oriented knowledge management strategies and how the strategies related to performance of commercial banks. In contemporary knowledge-based organizations of today's fast-moving sectors, banks are rated among the knowledge intensive firms. Such firms employ knowledge-oriented workers whose main task is to find creative solutions to complex problems and create new knowledge. Human capital is rated as the most important resource that has the capability to contribute to the bottom line of an organization. The resource is a means of improving financial as well as non-financial performance. The study examined the moderating role of strategic human resource management practices in the relationship. Further, the study focused on a descriptive analysis of the 43 commercial banks licensed by the Central Bank of Kenya (CBK) as at December 2017. The study relied on primary as well as secondary data, which helped the researcher to explain the study's findings, conclusions, and recommendations. The researcher targeted 30 respondents during pilot testing from five of the licensed microfinance banks by the CBK as at December 2017 and 384 respondents from the banks listed by CBK as at December 2017. The research design combined qualitative and quantitative methods. The target population was 43 banks and data were collected through a census. Management and staff from various operational departments and units in commercial banks and microfinance institutions served as the unit of analysis. The study used self-administered, semi-structured questionnaires to gather primary data. 296 valid replies were received. Descriptive statistics were used to analyse the data through the Statistical Package for Social Sciences. The research analysed data using multivariate regression model. In the regression model, tacit- oriented, explicit- oriented, internal-oriented and external–oriented knowledge management strategies were found to have a statistically significant influence on performance of commercial banks. The findings pointed out that the odds of commercial banks which has put knowledge management strategies in place were more than commercial banks without such strategies. The study concluded that banks that put in place a combination of strategies are likely to record better performance as opposed to banks that do not have such strategies in place. The study findings pointed out that the moderating effect of strategic human resource management practices offers commercial banks the opportunity to harness the strategies in place. Such measures significantly improve performance in turn. The study findings pointed out that external-oriented knowledge management (KM) strategy was the highest predictor of performance. Explicit-oriented KM strategy took the second position of this influence. Tacit-oriented KM strategy recorded a moderate effect while internal-oriented KM strategy was found to have the lowest impact on performance. The study therefore, recommends that banks use a combination of the strategies for better performance.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The primary objective of this study is the empirical analysis of the influence of knowledge management strategies and performance of commercial banks in Kenya. Further, the study seeks to enrich the understanding about the moderating effect of strategic human resource management practices in this relationship. The chapter expounds the background of the study, statement of the problem, study objectives, research hypothesis, significance and the scope of the study.

Knowledge is a combination of personal judgment, skills, competencies, capabilities, attitudes and values (Mahdi, 2019). Knowledge is obtained from staff and leadership of the firm, who are commonly referred to as internal stakeholders (Abbas & Riaz, 2018). In the context of working environment, it entails grouping of experience, value, contextual information and expertise that provides a framework for evaluating and integrating experiences as well as information (Ahmed, Sheikh & Akram, 2018). Knowledge is acknowledged as the most valuable resource in corporate operations, Singla, Shrivas and Sharma (2020) it is a strategic asset and a critical enabler for prosperity and maximum outcome (Abubakar, Elrehail, Alatailat & Elçi, 2019). The intangible assets, often referred to as intellectual capital are an organisation's knowledge-based assets (Kweh, Ting, Hanh & Zhang, 2019). Asiaei and Bontis (2019) recognizes the strategic importance of intangible resources as a basic component of business strategy and practices.

In a Volatile, Uncertain, Complex and Ambiguous (VUCA) acknowledges the significance of knowledge resources due to a shift in power from tangible to intangible resources (Jahmani, Fadiya, Abubakar & Elrehail, 2018). The era of knowledge-based economy presents new challenges for organizations that undertake their operations in the intensive knowledge-based sector. Knowledge is a critical enabler of efficiency of an organization's capability and decision-making ability (Andriani et al., 2019). Knowledge management helps to leverage on the knowledge

base of the organization along with human capital skills, competencies, thoughts and innovations to build an effective organization (Dalkir, 2017). Organizations should establish necessary conditions to ensure that employees with specific knowledge are placed in strategic positions to create collective knowledge and to implement it to achieve superior performance (North & Kumta, 2018).

Over the past 20 years and until recently, strategic human resource practices (SHRMs) have been acknowledged as a critical enabler in supporting KM process to improve innovativeness which is necessary to translate to superior performance (Iqbal et al., 2020). SHRMs such as performance-based compensation, team and skill-based staffing, competence-oriented training and enriching job experience can develop employee's knowledge as well as experience (North and Kumta, 2018). Firms that have put in place strategic SHRMs practices have the capabilities to expand the employee's awareness, co-operation and knowledge sharing within the organization. A firm may consider having in place SHRMs linked with innovation as well as strategy to align the knowledge of human capital to create value (Waheed et al., 2019). An important task of a firm is to establish conditions necessary to support employees with specific knowledge to create collective knowledge and to implement it to ensure business growth and success (North & Kumta, 2018).

1.1.1 Knowledge Management Strategies

Organizational knowledge refers to capacity of members of an organization to develop differentiation in the process of their work through collective participation and understanding (Marques et al., 2019). According to Chatterjee, Rana, and Dwivedi (2020), managing knowledge is a strategic challenge. As organizations seek to improve their operational effectiveness, enhance regulatory capacity, modernise systems and processes, they are driven by different needs and hence use and influence diverse strategies to capture and share knowledge for effective delivery of their mandate (Anand, 2016).

In 2008, Korea established a Ministry of Knowledge Economy and since then, other countries including Brazil, Finland, Ireland, and Malaysia have articulated use of explicit knowledge-based development strategies and policies. Bettiol, De Maria and

Grandineti (2012) articulate that highly creative knowledge-intensive business services (KIBS) such as Bain, Boston Consulting Group (BCG), and McKinsey underscore the importance of tacit-oriented strategy, while firms such as EY (formerly Ernst & Young) emphasises on knowledge explicit-oriented knowledge management strategy as a strategy to manage knowledge. In Ford, the idea is to examine the knowledge of others, learn from it, and modify such knowledge to fit the intended context.

Yakowicz (2014) observes that Google has put in place a peer-to-peer bonus system that empowers employees to express gratitude and share knowledge. It also recognises and rewards positive behaviour to encourage knowledge sharing. The Southwest Airlines has the 'agent of the month' award, which recognizes employees who have worked as a team to do great work (Gavett, 2014). Today, Embraer of Brazil is not only a principal manufacturer in the under-100 passenger region jet, but has its own design and research and development (R&D) capabilities prerequisite to knowledge management (Contractor, 2013). In Italy, Eni, a global energy company is flanked for the adoption of a knowledge management strategy that creates an environment which in turn facilitates knowledge exchanges between professionals at some local production site (Bolisani, 2015). In Italy and the United States of America, Eurotech has embarked on the acquisition of some innovative small organizations which has led to an expansion of the knowledge stock in the company.

Averweg (2012) confirms that eThekwini municipality's intranet in South Africa uses Intranet technology to enable the effective acquisition, sharing and presentation of knowledge. The African Development Bank (AfDB) appreciates its Knowledge Management Strategy (KMS) as important part of the organization's strategy (AfDB, 2015). The strategic objective of the KMS is to raise its development effectiveness by providing and exchanging innovative knowledge solutions for Africa's the transformation of African countries. Africa Union Commission, the Common Market for Eastern and Southern Africa Secretariat among other agencies, recognise knowledge as a fundamental asset in people's way of life (Kisira, 2016).

De Toni and Fornasier (2012), posit that the objective of knowledge management is to ensure that a company sustains continuous improvement and maintenance of the knowledge base. The South African banking environment heightens the creation, ownership, protection and use of difficult-to-imitate commercial and industrial knowledge assets for sustainable competitive advantage (Chigada, 2014). Exploration (high resource-augmenting modes) is rated among the techniques that can be successfully employed to share tacit knowledge. The approach requires the search for and experimentation of new resources, but the results are uncertain (Pla-Barber, Villar & León-Darder, 2014). Such activities track the advancement of new knowledge and development of different products and services to meet diverse customer needs. Management can support the process of knowledge exploration by implementing a range of activities such as formal and informal meetings. Different organizations have successfully adopted knowledge management strategies and the practice has enabled them to create an ecosystem necessary tap into different sources of knowledge that is necessary to subsist in a complex environment in the world of work (Milton, 2015).

In Nigeria, Osazevbaru and Osayande (2022) reported that creation of knowledge is essential for the survival of any organization. Omotayo (2015) acknowledges that tacit knowledge is embraided knowledge and is at the ontological dimension in which exposition requires the use of metaphors and an extensive process of socialization. Tacit knowledge is personalized hence, it is hard to formalize. Tacit-oriented knowledge management strategies seek to improve knowledge flows through networking and interactions. The main objective of this strategy is to achieve the best informal transfer of tacit knowledge at the individual level in an organisation. Tacit-oriented strategy defines who knows what, and if someone needs some particular knowledge, he or she can contact the people possessing it and learn from the knowledge. Among the methods that can employed in an organization to share such knowledge with others include brainstorming, storytelling, peer assist and after-action review (Osazevbaru & Osayande, 2022).

Kenya's vision of knowledge-based economy aims at shifting the current industrial development path towards innovation where creation, adoption, adaptation and use

of knowledge remains a key source of economic growth in the country (Kenya, Vision 2030). The Alliance for Financial Inclusion (AFI) is a global network of financial policy makers in which the Central Bank of Kenya is a member. In 2013, the Central Bank of Kenya (CBK) approved a request by the AFI to host a Joint Learning Programme (JLP), a knowledge exchange programme for AFI members to share and learn about Kenya's financial inclusion experiences. AFI has similar collaborations with the central banks of Brazil, Mexico, and Malaysia (CBK, 2015).

Locally, one of the best rated performing banks; Equity bank offers integrated financial services Equity bank (2017) and has identified its intellectual capital as part of its brand which includes products and intellectual property in Information Communications Technology (ICT) systems, procedures, protocols and software. Report by (KCB, 2015) indicates that its experience and research has led to the development of products that best suit the segments and establish a niche with the highest need. In the communications industry, Safaricom Limited, the leading communications company in Kenya with the widest and strongest coverage has put adequate strategies that seek to ensure that staff share their knowledge through training and workshops in areas of their specialization among them technology, finance, team building, soft skills and curriculum development (Safaricom, 2013).

The evolution of ICT companies in Kenya is commonly associated with success and knowledge as the major success factors. Knowledge is rated as the most valued available resources to these companies because it not only embodies the best practices and routines but also encourages creative processes of problem-solving methods that are rarely easy to duplicate. According to Nyaga and Bett (2018) majority of the ICT companies in Nairobi owe their success in business performance on effective management of knowledge than deployment of tangible assets. Ndiege and Wamuyu (2019) avow that knowledge management strategies may be critical resources to ICT firms but may demand high costs and investments in delivering effective transfer of knowledge.

1.1.2 The Concept of Performance

Performance refers to the execution or achievement of work or other activities for a person, machine, company and so on (Cambridge University, 2020). Performance is a multi-faceted construct that compares the actual output against indented output (Katou, 2021). It is a mechanism to implement organization strategy for the purpose of constantly improving the probability levels (Dulanjani & Priyanath, 2020). Lee and Ha-Brookshire (2018), aver that an organization that achieves a high level of sustainable performance is more likely to realize the stakeholders' needs, and achieve a higher competitive advantage in the market environment.

High performance entails overall firm performance which is higher than the performance of the peer group (competitors, comparable organisations). Such performance is measured by productivity, efficiency, customer satisfaction, profitability, market value and competitive advantage, among other indicators (Do & Mai, 2020). High Performance is relative, and the term is used to refer to companies that outperform competition. The process of measuring relative performance and determining the key drivers of performance is however, difficult. Many studies define success differently and it is therefore challenging to decide which companies to study more closely. Performance of commercial banks is a critical concern to organizations based on the reasoning that low performance results into low international competitiveness on the basis of price, quality, flexibility, delivery time and after sales support (George, Karatu & Edward, 2020). Such performance is likely to translate to total collapse of the organization.

1.1.3 Strategic Human Resource Management Practices

Strategic human resource management (SHRM) has been termed as the deliberate set of quality practices and activities that are vertically linked with organizational business strategies. Such practices are parallel with each other (Uysal, 2019). SHRM is a strategic and coherent approach to the management of an organization's most valued assets-the people who individually and collectively contribute to the achievement of its objectives (Mousa & Othman, 2020). Yusoff, Nejati, Kee and Amran (2020) regards HRM as a set of interrelated policies with an ideological and

philosophical underpinning. In this age of rapid technological development, the importance of human resources holds the key to the development and growth of an organization. SHRM goes beyond administrative approaches in managing people (Delery & Roumpi, 2017). SHRM helps in aligning the skills present in the employees with the goals to be achieved by the organization. SHRM is a branch of HRM (Yusoff et al., 2020). SHRM seeks to ensure that the organization has skilled, knowledgeable and engaged manpower who are empowered with knowledge, competencies and skills to achieve business objectives (Armstrong and Brown, 2019). In India, for instance, tire manufacturing company's managers are encouraged to apply SHRM practices to enhance the effectiveness of total quality management, employee satisfaction and performance (Pratima et al., 2021).

SHRM links organizations' strategic human resource management function as a strategic partner to organizational growth in the formulation and implementation of the organization's strategies through human resource activities such as recruiting, selecting, training and rewarding of human capital (Dixit & Sinha, 2021). SHRM aligns human resource function to core business objectives. Effective HRM requires that organizations recognize their people as their most important asset. Resources are the inputs or the factors available to a company which help to perform its operations or carry out its activities to achieve set objectives (Alolayyan, Alyahya, & Omari, 2021). SHRM is designed to help organizations best meet the needs of their employees while promoting organizational goals. SHRM requires thinking ahead, and planning ways for an organization to better meet the needs of its employees, and for the employees to better meet the need of the organization. SHRM reflects a more flexible arrangement and utilization of HR to achieve the organizational goals and accordingly helps organizations gain a competitive advantage (Roumpi, Magrizos & Nicolopoulou, 2020). South Korea has established formal and informal institutions to govern HRM practices (Horak and Yang, 2019). Mekonnen, Worku; Azaj, Endehsaw (2020) propose that insurance companies in Ethiopia should place more emphasis on strategic HRM practices to gain enhanced organizational effectiveness.

1.1.4 Commercial Banks

Commercial banks are knowledge -intensive organizations that are driven by skilled, competent and knowledgeable human resource to achieve trust-based goals (Limba et al., 2019). Commercial banks are highly dependent on employee skills, competencies and expertise. According to Andriani (2019), the banking industry is highly rated as a strategic pillar of a national economy. The industry plays a significant role in payment of taxes, job and wealth creation and credit access. Banks have to align their knowledge management strategy for making full use of their knowledge-related resources and capabilities to improve organizational performance. Therefore, banks provide a suitable context to examine the relationship between knowledge management strategies and organizational performance.

In Arab Gulf Cooperation Council (GCC) countries, such as Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and United Arab Emirates (UAE), commercial banks are acknowledged as the second highest contributor to the Gross Domestic Product after oil and gas (Al Musali & Ismail, 2016). Today, the GCC banking sector controls the financial systems. This control accounted to 82% of the financial system's total assets in the region for the period between 1998– 2017 (Saif-Alyousfi, Saha & Md-Rus, 2020). In Jordan, the banking sector is a cornerstone to the economy, as it makes a significant contribution to the gross domestic production (GDP) in addition to job creation. The sector proved its stability during Gulf Wars I and II, and during the global economic recession of 2008 (Jordanian Banks Association, 2020). The numerous reforms in the banking system in China such as the opening up to foreign investors, reducing state ownership, and listing previously state-owned banks have resulted in remarkable development of the commercial banking system since the 2000s (Zhang & Wang, 2014).

In Kenya, Uganda, Rwanda and Tanzania (KURT) banks are known to play a critical role in facilitating sustained economic growth (EABS, 2014). As at December 31, 2020, the Kenyan banking sector comprised of the Central Bank of Kenya (CBK), as the regulatory authority, 43 banking institutions (42 commercial banks and 1 mortgage finance company), As at 1st August 2017, the Central Bank of Kenya had

listed 43 banking institutions. That is, 42 Commercial banks and one mortgage finance company, eight representative offices of foreign banks, 13 Microfinance Banks, three credit reference bureaus, 17 Money Remittance Providers and 77 foreign exchange (forex) bureaus. Out of the 43 banking institutions, 40 are privately owned while the Kenya Government had majority shareholding in the other three institutions. Of the 40 privately owned banks, 25 were locally owned (CBK, 2017). For the period ended 31st December 2016, there were eight large banks with a market share of 65.32 %, 11 medium banks with a market share of 25.90% and 20 small banks with a market share of 8.77% (the controlling shareholders are domiciled in Kenya) while 15 were foreign-owned (CBK, 2016).

1.2 Statement of the Problem

Commercial banks in Kenya have witnessed improved performance in the years after financial liberalization (CBK, 2014). However, The Central Bank of Kenya (CBK) Annual Supervision Report (2015) postulates that the banking sector registered weakened profitability in 2015 with 5.03% decline in pre-tax profits during the year. The decline was the biggest recorded since 1999. The health of commercial banks came under scrutiny following the placement of three banks under statutory management by the CBK (Deloitte, 2016). Slowdown in credit to the private sector aggravated; January 2016 (16.8% growth); August 2016 (5.4% growth); December 2016 (4.3% growth). Credit risk was evident as reflected in growth of non–performing loans. Profitability declined in 2017, limiting banks' ability to build strong capital buffers through retained earnings. Employee satisfaction and productivity are rated among the key drivers of various performance parameters in commercial banks in Kenya.

Extensive theoretical and empirical literature have, to a large extent discussed the influence of knowledge management strategies on performance in other countries. Studies undertaken by Wang and Lin (2013); Mahapa (2013); Shehata (2015); Wang et.,(2016), Santoro and Dezi, (2017); González, Sáez, López and Verde (2014), Al Shahzad (2016); Marouf (2016) by Uzkurt et al., (2013); Daneshgari et al., (2016); (Odhon'g & Omolo (2015), Ochieng et al., (2015); Gathuku and Njeru (2016)

demonstrate that there is scarcity of documented empirical studies showing the actual relationship between knowledge management strategies employed by commercial banks and how the relationship influences performance of commercial banks in Kenya. Many studies are undertaken in the context of developed countries. These findings do not, to a large extent explicitly indicate how knowledge can be managed in developing nations and how they differ from developed markets. Further, empirical literature in local and global studies generates inconsistent results.

The research provided a dynamic empirical and theoretical perspective which can be integrated in a systematic, deliberate and systematic manner. The conflicting findings and the low explanatory power reported in the literature motivated the researcher to conduct the research. While a number of studies indicate the moderating role using other indicators, little attention has been paid to the role of strategic human resource management practices in the relationship. The conflicting findings and the low explanatory power reported in past literature motivated the researcher to conduct the research. In spite of having importance of contribution of KM on performance, no single study is found relating to this topic in this sector. This study will contribute in existing literature and through the analysis of the banking sector in Kenya.

1.3 Objectives of the Study

1.3.1 General Objective

The purpose of this study was to establish the relationship between knowledge management strategies and performance of commercial banks in Kenya.

1.3.2 Specific Objectives

The specific objectives of the study are as follows:

1. To determine how tacit-oriented knowledge management strategy affects performance of commercial banks in Kenya.
2. To establish the relationship between the explicit-oriented knowledge management strategy and performance of commercial banks in Kenya.

3. To determine the effect of internal–oriented knowledge management strategy on performance of commercial banks in Kenya.

4. To examine how external–oriented knowledge management strategy relates with performance of commercial banks in Kenya.

5. To evaluate the moderating influence of strategic human resource management practices on the relationship between knowledge management strategies and performance of commercial banks in Kenya.

1.4 Research Hypotheses

The following hypothesis guided the study;

1. **H$_0$**: Tacit-oriented knowledge management strategy does not have a significant relationship with performance of commercial banks in Kenya.

2. **H$_0$:** Explicit-oriented knowledge management strategy does not have a significant relationship with performance of commercial banks in Kenya.

3. **H$_0$**: Internal-oriented knowledge management strategy does not have a significant relationship with performance of commercial banks in Kenya.

4. **H$_0$**: External-oriented knowledge management strategy does not have a significant relationship with performance of commercial banks in Kenya.

5. **H$_0$**: Strategic human resource management practices do not significantly moderate the relationship between knowledge management strategies and performance of commercial banks in Kenya.

1.5 Justification of the Study

The banking industry is knowledge intensive and its success calls for availability of knowledgeable workers. Strategic management of explicit and tacit knowledge is therefore, a critical success factor for banks. Such knowledge may be obtained from within the borders of the organization hence, internal or across the border hence, external. The deliberate use of SHRM as a set of quality practices and activities enhances this relationship. The stakeholders who are likely to benefit from the findings arising from this study include; the Central Bank of Kenya, The Institute of Human Resource Management, Human Resource Management Professionals

Examinations Board, National and County Government, researchers and scholars, Small Medium enterprises (SME) as well as non-banking financial institutions.

1.5.1 Policy Making

The Government may be interested on policy formulation towards management of knowledge in the banks through the regulations by the Central Bank of Kenya. This interest underpins the commitment by the Government to implement sound policies to guide all sectors of the economy. Deliberate strategies may help to strengthen the on-going reforms by the Government in policy formulation towards financial deepening and overall economic development in the economy. Kenya's Vision 2030 and the Big Four Agenda initiatives have captured different facets of development dynamics. These include; social, political, technological economic aspects and the underpinning foundations such as infrastructure, energy, food security, universal health care, provision of affordable and decent housing, manufacturing and public sector reforms and research being translated into a coherent framework.

A fundamental thread that runs through Vision 2030 and Big Four Agenda is the commitment by the Government for Kenya to become a middle and knowledge-based economy in the long run. In such an economy, technology, knowledge and skills play a more profound role in economic growth and competitiveness than other factors of production such as labour, capital, and natural resources. Findings arising from this study may be critical in providing acumen in strategic management of knowledge in all sectors. Such action is necessary to place Kenya at a global arena which is a critical factor to propel the country to a middle level economy. Further, the findings are critical to the Institute of Human Resource Management, and the Human Resource Management Professionals Examinations Board in policy formulation. The institutions were established under the HRMP Act (2012). The institutions were established to govern the practice of HR profession in Kenya, enhance competencies and capabilities of HR practices, develop curricula, manage examinations and certify HRM professionals respectively.

1.5.2 Human Resource Practitioners

Knowledge management strategies help to improve employee job satisfaction, employee productivity, enhance market share as well as profitability levels. Such an understanding may be instrumental for human resource practitioners to develop competencies which is essential to   address human resources management related problems at global and local levels. Such competencies can transform human resources managers into knowledge practitioners or business partners. The strategic positioning of the human resources department within an organizational set up ensures that there is a strategic fit and link which has the capability to translate the success of knowledge management programs. Such efforts are directed at capturing, using as well as re-using employees' knowledge. The human resources department is instrumental in building a culture that encourages the free flow of knowledge across the organization and across the borders of an organization. The free flow of knowledge within an organization helps to meet set goals and objectives.

The human resource department plays a significant role in ensuring that knowledge is strategically positioned within an organization. It is widely accepted that human resources management requires a combination of skills, knowledge, competencies as well as attitudes with capabilities to exploit not only tacit but also explicit knowledge. Human resource practitioners leverage on both types of knowledge to manage human resource management related activities such as employee recruitment, selection, performance management, employee appraisals, business intelligence, people analytics and conflict resolution. A practitioner requires a mixture of tacit and explicit knowledge to undertake such duties and responsibilities effectively. Understanding of knowledge management strategies can help human resource practitioners to make informed decisions regarding what knowledge is important; develop a knowledge vocabulary and refine knowledge categories.

1.5.3 Researchers and Scholars

Contemporary researchers and scholars face challenges in reference to questions related to how well knowledge can be effectively managed and the benefits it could bring to an organization. The research framework and findings presented in this

study not only have practical and theoretical significance but may also guide scholars undertaking knowledge management studies to develop their research in new directions. The findings of this study may serve as a model for other researchers who are working to operationalize knowledge management techniques and their importance to performance of Kenyan commercial banks. These findings, will probably be relied upon by future academics as a benchmark for best practice to pinpoint areas that need further research. This study offers a chance to the researcher to empirically evaluate the study's hypotheses in underdeveloped nations, especially those on the African Continent such as Kenya.

1.6 Scope of the Study

The study concentrated on the relationship between Kenyan commercial banks' performance and knowledge management practices. The study concentrated on the performance effects of tacit-oriented, explicit-oriented, internal, and external knowledge management techniques in Kenyan commercial banks. Since knowledge management strategies are essential for producing and utilizing knowledge that has already been stored in order to obtain a competitive advantage, the study was biased in favour of them. The unit of observation was restricted to the 43 licensed commercial banks by the Central Bank the period between 2010 and 2017(CBK, 2017). The unit of statistical analysis was commercial banks operating in Kenya as at 31st December 2017. During this period, the Kenyan banking sector comprised of the Central Bank of Kenya (CBK), as the regulatory authority, 43 banking institutions (42 commercial banks and 1 mortgage finance company) (CBK, 2017). The study focused on a target population of 384 respondents drawn from management and employees in different operational departments and units. The management is considered to be members with extensive knowledge of company operations and decision-making abilities while the operations staff execute management decisions in realization of business strategy. Commercial banks provide important financial intermediation function by converting deposits into productive investments which in turn translate to job and wealth creation. The period of study is significant because commercial banks recorded a significant economic growth and a sizeable increase in number during the period.

1.7 Limitations of the Study

Kothari and Garg (2014) contend that a research is likely to encounter several limitations during the study. To meet the objectives, mitigation measures were put in place to unsure that the limitations did not negatively impact on final results. Commercial banks in Kenya are highly regulated, competitive and prone to global influence. As a result, some respondents were not keen to share information citing fear of legal implication and exposure. Consequently, a number of respondents declined to respond to the questionnaire citing confidentiality of information, busy schedules and personal reasons. The study mitigated the limitations by constructing the questions in a generalized manner.

The researcher was keen to ensure that anonymity and confidentiality of the respondents was maintained at all time during the research. The names of the respondents are anonymous to enhance confidentiality. Further, the researcher obtained a Research Authorization Permit from National Commission for Science Technology and Innovation and an introductory letter from the university to demonstrate that the objective of the study was for academic purposes in addition to the validation of the student. The sample size of the study was 384 respondents. 296 of the respondents successfully filled and returned the questionnaires. The researcher made use of email and telephone communication as well as on-line meetings using appropriate channels such as google meets. The researcher maintained a frequent follow up to increase the response rate. The researcher maintained a chronological order in record keeping at all time during the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter provides a review of the main theories that informs the study. Further, the chapter presents a conceptual relationship between knowledge management strategies and performance of commercial banks and the moderating role of strategic human resource management practices. The chapter examines the empirical literature that investigates the relationship between the study variables and concludes by conducting an empirical review of the existing literature, critique of the literature, summary and highlights the research gaps. Study literature is obtained from text books, scholarly journals, thesis, dissertations, government reports and conference papers.

2.2 Theoretical Framework

Theoretical framework refers to concepts, ideas and relationships that describe a given phenomenon (Miles et al., 2020). From the ideas, relationships and assumptions of the explanation, a number of possible hypotheses can be tested in order to provide support for, or challenge the theory. Such a framework is significant in situations where there is plenty of data to be explored. The framework is instrumental in providing attention to a particular phenomenon, concept or idea of interest (Miles et al., 2020).

This study adopted studies undertaken by De Vaus, (2013) which state that knowledge management strategies are divided into two facets; namely knowledge sourcing and knowledge focus. Sourcing strategies are divided into two dimensions namely internal- and external-oriented strategy. The second facet is knowledge focus, by which KM strategies is categorized into explicit- and tacit-oriented strategy. This study adopted the two facets to categorize KM strategy. The classification presents a more detailed typology with various types of KM strategy. Theoretical underpinning was anchored on Knowledge Based Theory and Dynamics

Capabilities Theory. The study is further supported by Nonaka and Takeuchi Knowledge Spiral Model, Von Krogh and Roos Model of Organizational Epistemology, Open Innovation Model, Self-Efficacy Theory, Social Exchange Theory and Expectancy Theory.

2.2.1 Knowledge-Based View of the Firm (KBV)

The Knowledge-Based View of the Firm, which serves as the foundation for this study, contends that successful knowledge management methods foster the growth of distinctive talents, which in turn improve organizational performance (Kane, 2017). This viewpoint advances and broadens KBV, which was first put forth by Penrose (1959) and later developed by (Wernerfelt 1984, Barney 1991 & Conner, 1991). The theory assumes that knowledge, as an intangible asset resource, is a critical strength whose appropriate exploitation could translate to long term sustainable competitiveness. The bottom-line of this theory is that the primary source of competitiveness and performance is found within the application of knowledge and not just the possession of knowledge in itself. The theory argues that the knowledge owned by any organization is under the risk of being imitated or transmitted (Lungu, 2019). In this study, commercial banks, as well, are running under jeopardy as there is unmatched knowledge in the industry. KBV affirms that an organization's sustainable and viable competitive advantage can be brought by an amalgamation of various activities/business functions witnessed across several functional units (Thongpapanl et al., 2018).

The theory argues that the knowledge owned by any organization is under the risk of being imitated or transmitted (Lungu, 2019). In this case, commercial banks, as well, are running under jeopardy as there is unmatched knowledge in the industry. The implication of such an unmatched knowledge is related to the corporate image, reputation, copyright, profits, market share, shareholders' wealth, and bank performance. The implementation of KBV, in knowledge management, falls into the scope of human resources. The bottom-line of this this theory in this study is that the primary source of organizational performance is found within the application of knowledge and not just the possession of knowledge in itself.

2.2.2 Dynamic Capabilities Theory

The theory of dynamic capabilities was propounded by Teece and Pisano, (1994); Teece, Pisano, and Shuen (1997) who emphasised that in a turbulent environment, a firm's competitive advantage is likely to rest on the firm's internal processes and routines that enable it to renew and change its stock of organizational capabilities thereby making it possible for the firm to supply a constant stream of differentiated and innovative products and services to customers.

Dynamic capabilities are well-thought-out organizational strategic routines by which firms achieve new resource reconfigurations as markets emerge, collide, split, evolve and collapse and incorporate "the management of capabilities and resources of all functions of the firms. The ultimate goal is to gain a competitive advantage (Arranz, Arroyabe, Li, & Fernandez de Arroyabe, 2020). A hyper-turbulent business environment underscores the importance of firms to develop the ability to build, integrate and reconfigure internal and external competencies to address the dynamic environments," and this ability is usually termed as dynamic capabilities (Teece et al., 1997). The survival of organizations or firms mainly depends upon the combination of existing resources and capabilities so as to explore new avenues for long-term growth and competitiveness (Rhemananda et al., 2020). The dynamic capability perspective is an advanced assessment of the resource-based view (Peteraf, Di Stefano & Verona, 2013).

In organizational theories, dynamic capabilities allow organizations to adapt an organization's resource base firmly. Teece, Pisano and Shuen (1994) proposed that the adoption of the dynamic capability's theory was indispensable for an organization that seeks to survive in a disruptive environment coupled with new challenges. One of the fundamental suggestions of dynamic capabilities theory is that organizations are not only competing on their ability to activate and exploit their existing resources and organizational capabilities, but also focused on their ability to continuously renew and develop these capabilities. For example, new technological advances and global demands might make the current technologies of the firm obsolete. Even where such technologies are part of a VRIN-resource or capability, a

firm will require adopting a new technology and phase out the old one to enhance its competitiveness and survival (Bogodistov & Wohlgemuth, 2017).

This research is anchored on the preposition that establishing strong dynamic capabilities to seize strategic opportunities is significant in developing knowledge capabilities and knowledge assets. The study adopted dynamic capabilities approach with the anticipation that through integration, reconfiguration and renewal of knowledge, commercial banks would achieve superior performance.

2.2.3 Nonaka and Takeuchi Knowledge Spiral Model

This study adopted Socialisation, Externalisation Combination, and Internalisation (SECI) model of knowledge creation developed by Nonaka and Takeuchi (1995) to explore the knowledge-creation process. The SECI model, is an organizational knowledge creation theory, and is the most dominantly cited model in support of knowledge creation (Mani, Mubarak & Choo, 2014). They describe a knowledge creation model that consists of four processes thus: a) Socialization (Tacit to Tacit): b) Externalization (Tacit to Explicit): c) Combination (Explicit to Explicit): This is the process of merging different bodies of explicit knowledge. Reconfiguration of existing information through sorting, adding, combining and categorizing of explicit knowledge as conducted in computer databases is likely to lead to new knowledge; d) Internalization (Explicit to Tacit): This is the process of embodying explicit knowledge into tacit knowledge.

The flow aspect of knowledge is emphasized in Nonaka's "SECI" Model (Nonaka & Takeuchi, 1995) in which knowledge is said to be created through a repeating (spiral) interaction between tacit and explicit in four phases. After Internalization the process continues at a new level and hence the metaphor of a spiral of knowledge creation. It has been argued that coping with the uncertainty of a dynamic environment requires the capability to create new knowledge, disseminate it through the organization, and embody it in products, services, as well as systems (Nonaka & Takeuchi, 1995).

In the SECI model, movement through the four modes of knowledge conversion is a spiral, and not a circle (Nonaka, Toyama & Konno, 2001). Having evolved through

several cycles, the organisation may consider that it has developed sufficiently to be able to document a new set of organizational characteristics. It is acknowledged that different cycles and different quadrants within each cycle may be more critical during knowledge management (Nonaka & Takeuchi, 1995). Tacit–oriented knowledge strategy zero-in on the socialization and internalization processes, and explicit-oriented strategy zero-in on the externalization and combination processes in the Nonaka model (Nguyen & Pham, 2017).

SECI Model of Knowledge Dimensions
(Ikujiro Nonaka)
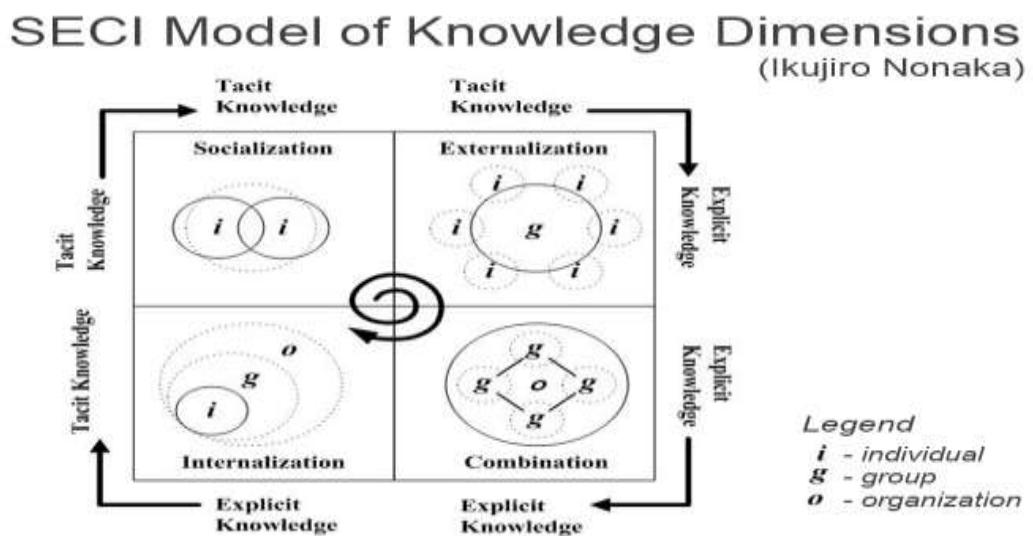
Figure 2.1: Summary of the SECI Model

SECI Model of Knowledge Dimensions (Nonaka & Takeuchi, 1995).

Nonaka's (1991) SECI model, Nonaka (1995) further proposed the requirement to build an enabling environment in which knowledge can be created and transferred with ease. This is referred to as "ba". The term means a shared space for emerging relationships, which might be physical, virtual, or mental, providing a platform for advancing individual and/or collective knowledge. From this idea, it is understood that by creating the right climate for the interaction of those elements, the organisation also establishes the conditions for the development of its intellectual capacity, whether creating new intangible resources or through increasing the value of current ones (Verbano & Crema, 2016). This study views the cycle characteristics

as a set of options available to the different banks to manage both the tacit and explicit knowledge.

The model provides a framework to support that sharing of knowledge and experience means that it is possible to identify knowledge workers and use a strategy necessary to support effective use of their knowledge. For example, through the framework, senior workers and experts can share their knowledge with juniors and new entrants with ease. When retirees leave, their knowledge is likely to be retained by new and young employees who remain behind. When tacit knowledge is converted to explicit (externalization), knowledge it can be captured in the organizational system and retained in repositories and databases for immediate and future use. Retention of knowledge includes all activities that preserve knowledge and allow it to remain in the system. It also includes those activities that maintain the viability of knowledge within the system.

2.2.4 Von Krogh and Roos Model of Organizational Epistemology

Von Krogh and Roos (1995) Model of Organizational Epistemology differentiates between individual knowledge and social knowledge. The model states that knowledge is found in the mind of the people and in the links between them. Such knowledge can only be exploited through connections and interactions with such people (Cristea & Căpaţînă, 2009). The Model examines the role of employees, communication and connection, organizational structure and layout, relationship between members, management of human resources and concludes that the factors are critical dimensions necessary to exploit knowledge. These dimensions are likely to produce difficulties which may hinder the efficiency of knowledge management.

Where employees fail to perceive knowledge as being a critical part of the company, their work output may be a reflection of this behaviour. The company may find it difficult to keep new knowledge if it does not have common language in place. In the case members of the organization do not have the opportunity to share their experiences and expectations, generation of collective knowledge becomes difficult. For success, organizations should purpose to put knowledge measures that serve to

stimulate knowledge development, knowledge sharing retention of valuable knowledge (Dalkir, 2011).

2.2.5 Open Innovation Model

Chesbrough (2003) proposed the concept of open innovation, having confidence that in today's business environment an increasing need to adopt an open innovation model persists. The model encourages the use of both inflows and outflows of knowledge to improve internal innovation and expand the markets for external exploitation of innovation (Cheng & Huizingh, 2014). Open innovation is a paradigm that assumes that firms should use a combination of external and internal ideas as well as internal and external paths to market, as the organization seek to advance the technology in use (Chesbrough & William, 2003).

Organizations should pay attention on acquiring the resources and knowledge they require to compete effectively in the environment without the complexity and cost of attempting to do everything in-house (Williamson & De Meyer, 2012). The focus not only helps to develop new ideas but also creates more innovative ideas qualified for external use so they can be effective and enhance performance. In contrast to out-dated innovation, "open innovation" defines a core concept of enterprises breaking through their previously closed borders to take in more innovative ideas from the external environment while sharing unused innovative ideas with other organizations, producing innovative flows and encouraging open sharing. In open innovation, boundaries become more blurred and permeable between organizations and their surrounding environments as creative ideas flow through different organizations.

In the modern business environment, knowledge is widely distributed and hence, organizations are not encouraged to entirely rely on their own research. Instead, they are advised to benchmark for best practice and buy or license processes or inventions (i.e. patents) from other organizations. In addition, internal inventions not being used in a firm's business should be taken outside the company for example, through licensing, joint ventures, mergers and acquisitions or spin-offs (Chesbrough & William, 2003). To reduce organizational inertia and maintain adaptability to the

environment, organizations attempt to use open innovation to innovate internal business functions and management functions (Chiaroni, Chiesa, & Frattini, 2011).

The model represents an   open innovation paradigm that can be interpreted to go beyond the use of external sources of innovation such as customers, rival organizations, and academic institutions to use of intellectual property. Through the model, an organization does not struggle to generate all ideas from within. Rather, it seeks to take advantage of the ideas that exist within its context. Hence, it seeks to leverage   internal and external sources of knowledge in the best way possible.

2.2.6 Social Exchange Theory (SET)

SET theory was introduced in 1958 by the sociologist George Hormans. He defined social exchange as the exchange of activity, tangible or intangible, and more or less rewarding or costly, between at least two persons (George, 1961). From the theory, it has been proven that employee's level of commitment correlates with the company's level of commitment towards them (Oparaocha, 2016). Likewise, a key assumption of SET is that different forms of social interactions are built upon reciprocal exchanges and which also facilitates reciprocity, psychological contracts and mutual obligations (Colquitt, Scott, Rodell, Long, Zapata, Conlon & Wesson, 2013).

Work across boundaries is largely influenced by the nature and kind of relationship that exist between employees. Such relations cannot be forced to happen but should arise out of a mutual agreement between the parties. SET provides a framework for deciphering the rules and norms that shape organizational transactions, resource exchanges and quality of the reciprocal obligations that is reflected in the emergent relationship behaviours in organizations (Lioukas & Reuer, 2015).

 The extrapolation of this theory is that all relationships have given and take, although the balance of this exchange is not always equal. The theory rests on norms of reciprocity within social relationships and posits that employees who receive economic or socio-emotional benefits from their organizations feel obligated to reciprocate with positive attitudes and behaviours (Alfes, Shantz, Truss, & Soane, 2013; Yang, 2012). SET seeks to explicate how we feel about a relationship with

another person and the balance between what we put into the relationship and what we get out of the kind of relationship. This in turn might influence the kind or the volume of knowledge that we share in such a relationship.

2.2.7 Expectancy Theory of Motivation

Expectancy theory is a motivation theory first proposed by Victor Vroom in 1964. The theory describes the behavioural process of why individuals choose to adopt one behavioural option compared to the other. The theory explains that there is a likely hood of individuals getting motivated towards a certain goal if they are persuaded that there exists a positive correlation between efforts and performance. The outcome of a favourable performance is likely to result in a desirable reward, a reward from a performance will satisfy an important need, and/or the outcome satisfies their need enough to make the effort worthy.

Vroom presented three variables namely; valence (V), expectancy (E) and instrumentality (I). The three elements are important in selecting one element over another because they are clearly defined: effort-performance expectancy (E>P expectancy), performance-outcome expectancy (P>O expectancy). Therefore, Motivational Force = Expectancy x Instrumentality x Valence. The theory proposes that an individual is likely to behave or act in a certain manner because they are motivated to select a specific behaviour over other behaviours due to what they expect the result of that selected behaviour will be (Oliver, 1974). Although the theory is primarily focused on motivation, it likewise explains the link between motivation and performance of commercial banks.

The theory amenably proposes that at individual level, superior performance to a large extent depends on high motivation, possession of key skills, competencies and abilities a suitable role and understanding of that role. It is imperious to stipulate the HRM practices that encourage high skills and abilities, for example strategic selection and heavy investment in employee training and development, employee involvement and engagement and possibly pay contingent with performance. In this study, the theory provides groundwork for developing a rationale about the moderating role of HRM practices on performance of commercial banks in Kenya.

2.3 Conceptual Framework

A conceptual framework refers to the overall, logical orientation and associations which formed the underlying thinking, structures, plans and practices that guided the implementation of the research study (Ravitch & Riggan, 2017). The literature reviewed was anchored upon knowledge sourcing and knowledge focus to categorize KMS based on two dimensions, namely, internal- and external-oriented. The second strategy was knowledge focus, by which KM strategies was categorized as explicit- and tacit-oriented (Choi, Poon, and Davis (2008); (Choi & Lee, 2002). The studies categorized KM strategy primarily based on the two important aspects. The research adopted the scale developed by Lopez-Nicolas and Merono-Cerdan (2011) in addition to findings by Zhining (2016) who contend that KM strategy is categorized based on two critical considerations. The first category is knowledge sourcing, which signifies a logical pattern regarding decisions of firms on where to acquire the most valuable knowledge (De Vaus, 2013). In this category KM strategy is divided into two dimensions namely internal- and external-oriented strategy (Hughes, Hughes & Morgan, 2007). The internal-oriented approach underscores the importance of creating, sharing and accumulating knowledge within an organization while the external oriented strategy focuses on the transfer of knowledge beyond the boundary of a firm (Choi et al., 2008).

The second strategy is knowledge focus, by which KM strategies is categorized as explicit- and tacit-oriented strategy. Explicit-oriented strategy focuses on improving work efficiency by use of explicit-oriented knowledge management strategy. Tacit-oriented strategy pays attention to tacit knowledge by person-to-person contact and socialization processes (Choi & Lee, 2002). This study, has adopted the two approaches to categorize KM strategy namely; explicit- and tacit-oriented strategy, internal-and external-oriented to conceptualize the KM strategy. The study is further supported by Hansen et al. (1999) classification of KM strategies that differentiates between the explicit-oriented and tacit-oriented KM strategy. This combination presents a more detailed typology with four various types of KM strategy.

The moderating variable is drawn from (Takeuchi, Lepak, Wang & Takeuchi, 2007; Leana & Van Buren, 1999) who contend that SHRMPs entail selective staffing, self-managed teams, decentralized decision making, training and development, job security, flexible job assignments, open communication, collaborative work environment and performance-based compensation. The assumption is supported by (North & Kumta, 2018) who argue that knowledge management requires management and rewards systems that promote competence of knowledge workers, integrates knowledge sharing and creation into rewards and appraisal system and bring collaboration in organization. These studies are supported by Karishma and Kailash (2021) who contend that strategic practices, such as team and skill-based staffing, performance contingent to compensation, competence-oriented training and enriching job experience are enablers of employee's individual knowledge and experience.

The dependent variable was adopted from Dyer and Reeves (1994) who aver that organizational performance is a multi-dimensional formation constituting to three kinds of assessment namely; financial outcomes (market value, company profit), organizational outcomes (customer satisfaction or productivity) and human resource effect (job satisfaction). The questionnaire, adopted from Lopes et al. (2005), paid attention to six indicators namely; return on assets, return on equity, sales growth, net profit, profit growth and market share. To measure performance of commercial banks, seven items were adopted from (Delaney & Huselid, 1996). The question items of job satisfaction were adopted from the Minnesota satisfaction questionnaire George and Zakkariya (2015) while the questionnaire on employee productivity was adopted from (Harris & Fleming, 2017). The constructs were slightly adjusted to the research context. These hypothetical relationships are diagrammed in Figure 2.2

Tact-Oriented Knowledge Management Strategy
- Coaching
- Mentoring
- Job rotation
- Exit interviews

Explicit-Oriented Knowledge Management Strategy
- Manuals
- Data Bases
- Progress Reports
- Human Resource Information Systems

Internal-Oriented Knowledge Management Strategy
- Knowledge Creation
- Knowledge Accumulation
- Knowledge sharing
- Knowledge culture

External-Oriented Knowledge Management Strategy
- Co-Managed HR Innovation Hubs
- External Communities of Practice
- Knowledge Process Out Sourcing
- Boundary Spanners

Independent Variable

Performance of Commercial Banks
- Job Satisfaction
- Employee Productivity
- Market Share
- Profitability

Dependent Variable

Strategic Human Resource Management Practices
- Skills-based Staffing
- Employment Security
- High Compensation Contingent Performance
- Self-Managed Teams

Moderating Variable

Figure 2.2: Conceptual Framework

2.3.1 Tacit-Oriented Knowledge Management Strategy

Tacit oriented (or human-oriented) KM strategy refers to the mobilization and transfer of knowledge in tacit form from person to person. Tacit knowledge is nebulous and personalized making it hard to formalize and commute (Chen et al.,

2018). Extant literature reveals that critical knowledge resides within employees and is hard to access when required within a firm. The strategy embodies explicit knowledge in action and through internalization. Skills, abilities, experience and professional knowledge (Massingham, 2018; Levallet & Chan, 2019). This state makes such knowledge more challenging to manage and incorporate with processes and systems. The strategy embodies explicit knowledge in action within internalization. Individuals acquire and change it into tacit knowledge through learning by doing (Song & Sun, 2018). The strategy assists human resource in improving incremental innovation within training programs, coaching and mentoring processes and exploitative learning. In the contemporary business environment, organizations need to execute various processes aimed at improving organizational performance as well as achieving competitive advantages (Maamari, Achi, Yahiaoui & Nakhle, 2022).

Coaching is an approach that is intended to "assist to learn" rather than to "assist to teach" (Vrontis, & Christofi, 2020). To realize this, coaches need to recognize that knowledge is not in them, but somewhat in the coachees' thus, a coach has to support and encourage the coachee to learn through a Socratic method, which is described as a methodical and rational questioning in which contributors are provoked to pursue and discover responses for themselves (Yuan, Wang, Huang, & Zhu, 2019). Coaching needs to be altered and customized according to the precision and needs of the organization, therefore, qualifying to be a change-seeking process.

Coaching plays a critical role in the development of employee knowledge, capabilities, skills hence boosting organizational performance (Dahlan & Dewasiri, 2019). As a human resource management practice, coaching encompasses innovative and result-oriented practices that directly inspire self-development while indirectly nurturing the profitable and sustainable development of organizations (Yuan, Wang, Huang & Zhu, 2019). In the business context, coaching can be described as a collaborative, straight, and sound approach through which a coach and coachee endeavor to find the most operational means of attaining goals while creating remarkable adjustments within an organization by use of its capabilities as well as resources (Vrontis & Christofi, 2020). There is growing attention to coaching in the

business context, a superior consideration of this approach is vital in boosting an organization's attractiveness (Maamari et al., 2022). Additionally, coaching holds some inimitableness that makes it distinct and different from the traditional staff development and training practices. For example, coaching endeavors to strengthen the coachees' current proficiencies, redeeming all of their potentials to achieve uttermost performance.

One of the long-established approaches to imparting knowledge, skills, and abilities in a business locale is mentoring. Mentoring is acknowledged as a respected tool for employee and/or self-development, the spread of organizational culture as well as enculturation. A well-designed mentorship program is a valuable, well-thought-out way of connecting and transferring facts related to the outlooks of diverse management methods to new entrants and present employees (Malek Abdul Malek, & Bakar, 2020: Iqbal, & Ul Haq, 2020). It is an approach to enabling effective learning at the workplace; it employs a directed learning method aimed at developing knowledge, capabilities, and skills required for effective performance at the workplace (Jammulamadaka, 2020). It is modeled with explicit necessities of any business at all times. It emphasizes assisting an employee to assess their know-how, weaknesses, strengths, offering leadership, and cares to empower them to make the most out of the opportunities present ((Siengthai, Pila-Ngarm & Sorakraikitikul, 2020). Mentoring has been adopted by countless businesses to address several challenges related to employee turnover, engagement, satisfaction, and employee diversity (Siengthai et al., 2020).

The various aspects that affect the usefulness of a mentorship system and/or programs include vibrant institutional policies, human resource management practices, mentorship assessment, certitude veracity, and unproven risks (Hosomi, Sekiguchi, & Froese, 2020: Gannon, Clayton, & Klenert, 2021). Another move aimed at enhancing the mentorship relationship is reverse mentoring which is becoming a strategic human resource initiative in present-day organizations. It is done by depicting numerous and appropriate dimensions among them organizational culture, economic and socio-cultural factors (Jammulamadaka, 2020). The idea of reverse mentoring is adopted as a strategy predominantly relevant in the digital era.

Managers are teamed up with their juniors who assist them in understanding and leveraging new inclinations in social media, mobile technology as well as consumer preferences (Siengthai et al., 2020: Jammulamadaka, 2020).

Workforces contribute greatly to the accomplishment of competitive advantage. Emam, Fahmy, & Gaafar, (2019) cited several approaches involved in the recruitment, selection, placement, training, and motivation of employees in the quest to enhance their global competitiveness. These HR functions include job enrichment, job design, employee participation, and involvement as well as job rotation. Al-Romeedy, 2019 affirms that job rotation can also be described as an HR tool that is used by most employees to boost their performance at work. Besides, it is through effective training methods that staffs acquire additional skills and knowledge without incurring an extra charge.

Ayough, Farhadi, and Zandieh, (2021) agree that companies that execute job rotation techniques efficaciously are deemed 'High-Performing Work Organizations' as job rotation influences the behavior of employees at work. Knowledge and information sharing is therefore made possible via the benefits that come with job rotation. So, job rotation acts as an active tool in shifting tactic facts and knowledge from one employee to another (Emam, Fahmy, & Gaafar, 2019). A company's capacity to innovate and revolutionize is closely associated with its intellectual capital. This asset constitutes the imperceptible resources of any organization that is entrenched in its workforce, corporate processes, procedures, and culture (Thongpapanl, Kaciak, & Welsh, 2018).

Organizations incorporate particular skills, knowledge, and capabilities of the staff to co-generate fresh ideas and knowledge needed in the production of various goods and services as well as to attain a viable competitive edge. To realize such an objective, companies are required to inspire interdivisional fusion through the sharing of knowledge across different units (Elsetouhi, Hammad, Nagm, & Elbaz, 2018). Knowledge creation is settled through combination and exchange. The creation of knowledge depends on the interchange of formerly independent facts that exist in diverse functional units (Ayough, Farhadi, & Zandieh, 2021). A cross-

functional amalgamation of HR activities amongst them job rotation is vital to the development of new and advanced knowledge amongst employees. Nonetheless, this amalgamation could face several challenges that arise from the disparities in the cultures and attitudes that relate to the HR, R&D as well as marketing functional units (Tolera, 2018). Therefore, the management of organizations are required to understand how to facilitate integration among firm functions to create new knowledge and offerings through innovation and other entrepreneurial activities. The company converts knowledge embedded in employees into new goods and services that constitute its competitive advantage (Ayough, et al., 2021; Emam, Fahmy & Gaafar, 2019). To enable employees, leave the professional comfort zone, rotation of professional roles can promote the sharing of tacit knowledge and transform it into explicit knowledge (Olaisen & Revang, 2018).

Employee Turnover is a major concern in present-day organizations as bringing new employees on bond necessitates an investment of additional resources into the recruitment, selection, placement as well as training and development processes (Farooq, 2021). In some cases, particular turnover is advantageous to the firm. For instance, when incompetent staff exits, logical and critical evidence points to a primarily undesirable rapport and association amid employee turnover rates and the firm's performance (Booth-LeDoux, LeDoux, & Champagne, 2019). To understand the mass exit of the workforce, firms substantially rely on information obtained from staff exit interviews. The leaving staff is cross-examined on their levels of motivations besides their pay packages. This dialogue takes place at the end of their time at work and is aimed at getting adequate and quality information (feedback) from the employees that are leaving. Employee exit interviews fit into the split-up phase of the employees' life cycle. This starts when an employee becomes detached from his/her work and their departure from the company. Firm can use such a time to administer interviews to capture all the necessary information (Farooq, 2021). The response acquired is used in identifying the challenges that if addressed, would reduce subsequent employee turnover rates.

The benefits of well-crafted employee exit interviews include boosting human resource (HR) innovation, sustaining employee performance, shortening the

recruitment and selection process, and reducing litigations/lawsuits if the issues raised during the process are addressed (Brosy, Bangerter, & Sieber, 2021). Exit interviews might be conducted by the manager of the departing employee, someone from the human resource department, or an external consultant. Enhanced configuration and alignment of exit interviews with HR and business strategies can boost the usefulness of procedures and processes through constructing a swiftly adaptive corporate culture that advocates for a 'continued employee voice' (Booth-LeDoux et al., 2019). Employee exit interview procedures and activities significantly influence the honesty and usefulness of the facts drawn from the process. Although most companies rely on informal interviews steered by human resource managers, some organizations prefer formal, outsourced, or a combination of internal and external interviews as well as surveys (Beutell, et al., 2019). Exit interviews should be taken as an opportunity for leaving employees to share their voice concerning their viewpoints of the firm (Brosy, et al., 2021).

2.3.2 Explicit Oriented Knowledge Management Strategy

Explicit- oriented strategy (also referred to as system-oriented KM strategy) contends how well explicit knowledge can be extracted from employees for storage in knowledge databases for reuse (Sun, 2018). The strategy creates an environment which allows employees to have an opportunity to real time and permanent access to organizational memory at any given time. This strategy enables prior decisions to be detailed in procedures, standards, manuals and of the lessons learned from gaps observed in previous projects (Hayaeian et al., 2021; Levallet & Chan, 2018) Knowledge such as business plan, working guidance, project plan, IT manuals operation, etc. help to foster business innovation in global market environment by means of explicit-oriented knowledge management strategy knowledge transfer (Li, Saide, Ismail & Indrajit, 2021). In a VUCA world, explicit-oriented knowledge management strategy is an enabler for the firm to align its knowledge capabilities with business goals. Firms require to have in place business-related knowledge management strategies to manage and reuse their documented knowledge. The underscores the importance of documenting human capital expertise and knowledge for the purpose of making it more transferable and accessible through IT (Cheng,

2017). Proactive strategies can help to establish the extent IT enable the strategic link between knowledge and business transformation (Verhoef et al., 2021).

In the recent past, various enterprises have incorporated various supportive engagements as strategic reactions and tools to counter uncertainties that close rising global hyper-competition, development of new marketplaces, in addition to swift high-tech revolution. This is made possible through the content of employees' manuals/handbooks to facilitate and fast-track employees' information. Employee manuals typically stipulate the company's mission or purpose, values, and company policies not required by law, policy summaries, as well as rules, disciplinary and grievance procedures, and other information modeled from employment laws or regulations. An employee manual, therefore, stipulates the requirements and necessitates of a valuable employee. Parjanen, Saunila, Kallio, & Harmaakorpi (2021) aver that the existence of creative employees is vital for the growth of any business. The capacity to create, dream, resolve and link in, new approaches are critical to a firm's success. By cultivating creative philosophies, the members of staff deliver new solutions and options that help the company (Parjanen, et al., 2021). The manner in which business entities reminisce, evoke, and utilize and evocations (memory) has invited scholarly curiosity, mainly in the past three decades. Organizational Memory (OM) can be described as acquired or attained knowledge from prior experiences, amongst them previous happenings, possibilities, objectives, expectations, and behaviors which contribute to contemporary resolutions and judgments (Aladwan, AL-Yakoub, & Adaileh, 2022). It is a declarative, holding factual knowledge and information, procedural schemes and plans, comprising of routine knowledge, developments, processes, techniques, or abilities.

Based on the technological point of view, OM is built on a knowledge warehouse, for example, a communal database or knowledge base, that encapsulates and amasses knowledge for easy retrieval (Aladwan, AL-Yakoub, & Adaileh, 2022: Kmieciak, 2019). Organization Memory is associated with enhanced decision-making processes as well as new product development (Kmieciak, 2019). This means that previous facts, information, and knowledge stands with contemporary happenings that are made available by organizational reminiscences amongst them attainment,

retention, maintenance, and retrieval of knowledge. Additionally, OM has a negative and positive influence on a firm's performance as it keeps inventories of information, factual data, and knowledge from past organizational failures and successes. For business establishments, it is an instrument used to recall what works fails and the contributing factors to the same, so that such knowledge can influence immanent processes of decision making (Kmieciak, 2019). This is how memories at the organizational level help in leveling up past inaccuracies. Founded on past know-how, business entities can use verified, acknowledged, and efficacious working ways. Contrastingly, OM can impede the firm's sustainability as Knowledge from prior practices can deter ingenuity, creativeness, and tractability. Employees may avoid new and progressive innovative approaches to things if they identify with efficacious past activities, the effect described as routine rigidity or competency trap (Martínez-Costa, Jimenez-Jimenez & Castro-del-Rosario, 2019).

OM is experienced at an individual and firm-level. In the firm's business setting, individual-level OM denotes the employees' memories that recollect the proficiencies, rules, assignments, happenings, and capabilities that are required in performing their duties. At the organizational level, OM captures the corporate culture, procedures, job situations, and evidence-based records (Martínez-Costa, Jimenez-Jimenez and Castro-del-Rosario (2019): Aladwan, AL-Yakoub & Adaileh, 2022). Organizational memory can also be categorized as soft and OM. Soft-OM deliberates on inferred knowledge in addition to employees' memories associated with the rules and practices and is incorporated in numerous corporate procedures, alignments, and processes. Hard-OM encompasses digital-based viewpoints and perceives the firms' memory as communal databases that store and disseminate clear and enunciated facts (Martínez-Costa, Jimenez-Jimenez & Castro-del-Rosario, 2019). For creative, effective, and meaningful operations of business establishments, it is essential to bring up-to-date the necessary databases to add value to managers as well as employees. Updating databases is not an easy task because it requires motivation, effort, and commitment. OM containing databases need to be subjected to a crucial assessment, which is predominantly significant in the ever-changing corporate settings. Thus, interrogating the principal facts should pave the way for the usage by employees (Aladwan, AL-Yakoub, & Adaileh, 2022).

Knowledge is a crucial and great resource that keeps business entities working proficiently and resourcefully (Butt, Tariq, Weng, & Sohail, 2019). Companies inspire and hearten members of staff to take part in the sharing of knowledge processes to realize enhanced corporate performance, superior innovative ways, and a reduced number of replicated efforts (Jiang, Hu, Wang, & Jiang, 2019). There is a budding appreciation that effective knowledge management activities are crucial in boosting corporate as well as financial performance. As a result, the learning and development function of human resources is under investigation and review to add value to the business. So, knowledge sharing and creation initiatives are key in promoting employee innovative ideologies that are tracked through employee progress reports (EPR).

Abubakar, Eurehail, Alatailar and Elei (2019) described employee progress reports as an outline of team and /or employee guidance mechanisms that heighten managerially as well as organizational business acumen. They facilitate the monitoring of employee achievements, enhance the decision-making processes and improve employee focus. Resourceful and well-crafted employee progress reports are anchored on the scales of intolerable, peripheral, average, worthy as well as meritorious employee performance (Chun, Brockner & De Cremer, 2018). EPR explains how far an employee has gone en route to the conclusion of an assignment. It summarizes the undertakings of individual employees, the tasks concluded, and the highlights of how far an employee has gone concerning project strategies EPR explains the advancement, strategies, growth, and difficulties faced by employees in modern organizations. Progress, plans, progress, and problems (PPP) which form part of the employee progress reports describe a managerial and administrative approach for periodic stature reporting. They are conscripted on a monthly, weekly, and daily basis. Employee reports capture objectives and challenges faced by employees while accentuating their accomplishments. The reporting process includes coming up with the easiest reporting process, setting up objectives for an individual team, being aware of the employee plans, knowing employees' progress, discovering problems faced by them, and adopting software to save on time (Butt et al., 2019).

With the advent of science and high-tech progression and development, the corporate business environment will continue evolving. Currently, Information Communication Technology (ICT) is applied in all commercial praxis. Management help to manage knowledge abilities within an organization which enables a seamless flow of knowledge abilities from an individual, team and organizational level. This is instrumental in integrating knowledge resources with technology adoption and business operations (Muwardi et al., 2020). Knowledge is not always easy to codify, but use of ICT tools plays a significant role in its management (Santoro & Usai, 2018). Explicit-oriented knowledge management strategy of knowledge via ICTs creates an avenue for the target to have a shared knowledge repository that is easily accessible to all the target's employees (Annosi, Casprini, Martini & Ramón Torres, 2021). Furthermore, ICT can also stimulate employee's ability to build new relationships or to share and create new knowledge, because of increased connectivity and interpersonal interactions (Bencsik, 2021). Advances in information and emergence of new digital technologies, including enterprise resources management systems, video-conferencing and other internet-based collaboration tools, have further aided knowledge sharing across organizations (Stallkamp & Schotter, 2019).

Certainly, significant enhancements and progressions have been recognized at the firms' leadership side as ICT provides backings to all decision-making prototypes at the organizational level. Human Capital Management (HCM) has therefore been influenced by IT among them internet-based technological applications and HR intelligent systems which add value to the human capital. Zhao and Rabiei (2022) affirms that contemporary soft wares related to HCM do not only deal with payrolls but also incorporate recruitment, learning, coaching, and performance management in the HRM processes that have revolutionized HRM from a task-driven process to a people-oriented approach. Presently, Human Resources Information Systems (HRIS) and electronic HRM (e-HRM) are being made use of by numerous companies globally and so play a deliberate and strategic role in all organizational decision-making progressions for meaningful and efficacious HCM (Colakoglu, Erhardt, Pougnet-Rozan, & Martin-Rios, 2019).

Human resources information system (HRIS) necessitates commissioning information technology initiatives in coordinating and directing all HR functions (Zhao, & Rabiei, 2022). It integrates, assembles, processes, and links precise data about employees and the associated undertakings within the company promptly (Bilgic, 2020). It is fashioned to provide backing on the role of HR, top management, and supervisors saving on time for other planned, strategic, life-changing as well as developmental activities (Bilgic, 2020). A multi-layered view by Al-Dmour et al. (2015) operationalized HRIS efficiency as facilitating improvements at the strategic level of management thus enhancing the financial capability of the firms, premeditated decision-making models, management of knowledge as well as improved competitive advantage, operative level of management via efficient handling of HCM administrative activities electronically, and interactive level through pertinent stakeholders thus endorsing and supporting the value of HR services.

Almomani and Alkhalayleh, (2021) argue that HRIS has the capability to promote innovative ways through knowledge management systems that boost employee assignments thus, facilitating their capability in becoming the company's strategic assets. Technology should be aimed at delivering creative and innovative ways of driving competencies and productivities through the automation of the administrative workload, knowledge acquisition, creation, accumulation, and sharing resulting in overall corporate growth and development (Adel & Younis, 2021). Consideration should be put on all workflow activities and the serviceable needs of the contemporary work environment which include HR preeminent practices that increase talent procurement, expansion, retention, growth, besides organizational learning technologies that involve and empower members of staff. Technology should uphold and preserve intelligent placements and orientations aligned to the firms necessitates (Colakoglu, Erhardt, Pougnet-Rozan, & Martin-Rios, 2019; Adel, & Younis, 2021).

In the present knowledge-based economy setting, the innovation procedures and progressions power business establishments to cultivate a robust knowledge-sharing base besides collaborative-based initiatives with all stakeholders. Starting with the

necessity to open up businesses to the market, introducing global, regional as well as local collaborative arrangements, the establishment of shared networks allows for candid and communal paybacks, amongst them learning and development, management of knowledge, and innovative viewpoints for the firms involved (Adel, & Younis, 2021).

2.3.3 Internal –Oriented Knowledge Management Strategy

Knowledge creation process comprises of two dimensions namely; social and dynamic. The social dimension involves social interactions among people while the dynamic dimension focuses on people as thinkers (Canonico et al., 2020). Stojanovic-Aleksic et al. (2019) recognizes the critical role played by networking and intra-organizational process for knowledge creation. Knowledge creation is an antecedent to generation of innovative ideas in an organization (Al-Omoush et al., 2020). Knowledge creation calls for collaborations, partnerships and linkages among people and should pay attention beyond the formal boundaries of an organization (Tripathi et al., 2021). Knowledge creation is affected by creativity (Yoon et al., (2020) and trust Goyal et al. (2020) among other factors. Collaborative workplace learning, high performance teams (Grimsdottir et al., 2019), transformational leadership and a supportive learning culture (Yoo et al., 2021) significantly influence knowledge creation activities. Cauwelier et al. (2019) concluded that psychological safety and team learning significantly impact knowledge creation.

In today's knowledge-based economies, the facts that rest in corporate entities are progressively recognized as chiefs' factors of production. Accumulation of knowledge has an unswerving demeanor on a company's attractiveness and growth possibilities (Yi, Stieglitz & Knudsen, 2018). Knowledge is one of the key intangible resources controlled by human beings. Unlike the economist's predictable resources (factors of production) like labor, land, and capital, Knowledge is an immeasurable resource that produces cumulative earnings through organized use and application (Al-Ajmi & Al-Busaidi, 2022). In modern businesses, knowledge is deemed the primary resource of production, after capital and labor. The combination of knowledge amongst employees culminates in new and innovative HR practices.

Knowledge accumulation is a critical enable of organizational growth and development potential (Inkinen, 2016). Migdadi (2021) aver that the formation of new knowledge entails knowledge accumulation as well as internalization.

Knowledge sharing is described as a set of activities that comprise of conveyance of support to others as well as an exchange of meaningful information (Yoo, JooI, & Noh, 2022). Personal factors, employee level of engagement, commitment and trust and organizational factors are critical factors relevant to foster knowledge sharing among knowledge workers (Javaid et al., 2020). The formation and extraction of new knowledge capture all learning activities (capacity building initiatives). Efficacious sharing of knowledge enhances learning amongst individuals at work. Therefore, learning is the attainment and usage of new knowledge, a feature of knowledge sharing (Cao, Ali, Pitafi, Khan, & Waqas, 2020). Learning ushers in behavioral modifications as well as an enhanced employee. Operational learning practices are linked to searching, utilization, and sharing of employee knowledge (tacit and explicit) with the help of suitable expertise, technology, and productive cultural settings that boost a firm's knowledgeable capital and performance (Yoo, JooI & Noh, 2022; Al-Ajmi & Al-Busaidi, 2022). This description connects knowledge sharing to corporate learning. Theories of organizational learning make available rich perceptions, procedures, and practices that create and transform a firm's knowledge base.

Sharing of knowledge models should be collaborative and communal. Therefore, developing employees' and teams' capability through collaboration mechanisms is critical to efficacious sharing of knowledge. The practice of KS organizations is encircled by numerous risks and challenges. These threats and trials are greater when knowledge is exchanged amongst business establishments (Cao, Ali, Pitafi, Khan, & Waqas, 2020). Nevertheless, sharing knowledge could lead to several challenges which include undesired threats at the firm's levels such as leakage of knowledge, knowledge spillage, and loss of knowledge. To mitigate the risks, various control measures need to be put in place. These controls are categories based on three elements, which are technology, people, and processes. Al-Ajmi, and Al-Busaidi, (2022) explored the management of knowledge about processes (practices),

people (employees), and technology (automation). Organizations inspire and hearten members of staff to take part in the sharing of knowledge processes to realize enhanced corporate performance, superior innovative ways, and a reduced number of replicated efforts (Jiang, Hu, Wang, & Jiang, 2019). Organizations exercise high level of knowledge sharing to achieve the expected performance target (Zhu, He, Yang, Luo, & Ding, 2016). The North Atlantic Treaty Organization Communication and Information Agency (2019) acknowledges that knowledge is power when shared.

Knowledge combination offers an interactive platform for interaction between the management and the employees to transfer knowledge. Further, it creates an opportunity that helps employees to share their skills through a method that all employees can gain access to (Bhatti, Vorobyev, Zakariya & Christofi, 2020; Wang & Zatzick, 2019). The North Atlantic Treaty Organization Communication and Information Agency recognizes people's knowledge as the most critical asset. Therefore, it requires that people develop a culture of responsibility-to share as much knowledge as possible (NATO Communications & Information Agency, 2019). Since employees play a critical role in executing knowledge management processes, assessment of organizational culture and its people is paramount (Wikstrom, et al., 2018). Knowledge sharing can be divided into explicit and tacit knowledge sharing. Explicit knowledge sharing denotes to the behaviour of enterprises to share documents, work-related tools, operation specifications, training and other materials with other partners. On the other hand, tacit knowledge sharing refers to the behaviour of sharing knowledge by use of informal communication methods, employee interaction use of influence (Shan & Li, 2015; Zhu et al., 2016).

A company's knowledge culture refers to a set of knowledge-related behaviors (Rothberg & Erickson, 2017). Knowledge-centered culture is the key and decisive player in creating an appropriate climate that significantly facilitates the willingness of employees for sharing knowledge (Lei, Do & Le, 2019). Culture is composed of the dynamic set of collectively shared values and norms that have been embraced over time. Differences of organizational culture may lead to dissimilarity in providing sources of knowledge, opportunities and motivation for knowledge management and innovation (Waheed, Miao, Waheed, Ahmad, & Majeed, 2019). Le

and Lei (2019) indicated firms can foster innovation capability by creating a supportive culture that encourage employees to discuss and share innovative ideas and approaches with ease. Culture is considered to be the "key ingredient in shifting from knowledge to intelligence" (Rothberg & Erickson, 2017).

2.3.4 External-Oriented Knowledge Management Strategy

It is critical for firms to integrate external knowledge into their knowledge base (Criscuolo, Laursen, Reichstein & Salter, A., 2018). External organizational knowledge is the knowledge that lies beyond the boundaries of an organization. Elia, Petruzzelli and Urbinati (2020) aver that firms, may leverage on outside-in activity, to absorb and internally use external knowledge. They may exploit the new, innovative ideas and leverage the relationships with external stakeholders to access and exploit their knowledge. In some circumstances, internal knowledge sources are not adequate to realize the objectives of an interaction. Organizations focus on interacting with external environment to generate knowledge (Bereznoy et al., 2021). In some circumstances, professionals may lack adequate knowledge to address specific problems. They may, therefore, refer to external sources to access such information, proposals as well as feedback (Asare et al., 2020; Siahtiri et al., 2020). Sources of external knowledge include academia; conferences, knowledge from customers, external providers and standards.

Communities of practice are made up of individuals who are mindful and care about the welfare of one another. Such individuals connect frequently and share a shared objective. They interact frequently, share a worry or a passion, and improve at what they do as a result. The groups can take on a range of shapes, from traditional local groups that meet in person to contemporary enormous worldwide groups that gather in on-line forums, such as in multinational companies. The success of the group involves mutual engagement popularly referred to as thinking together (Pryko, Dorfler, & Eden, 2017). Furthermore, communities are designated networks of employees who share information and knowledge either face-to-face or virtually. They also share a common concern or passion for a common purpose.

Communities have the capabilities to drive business strategy, generate new lines of business, solve problems and offer suitable solutions to problems. Members of such groups are united by a common purpose and are self-directed. CoPs and may seek to improve their own knowledge or skills when required to do so (Britt and Britt, 2020). Members aim to improve on the capabilities of each other and are engaged to work together to empower and educate each other, for without charging any costs (Higher Ed Learning Collective, 2020). Members hold joint discussions and activities to enhance team cohesion. They offer mutual assistance, and shared information on regular basis. Such relationships are well established and members have a mutual respect for each other. Interaction and learning are considered to be critical success factors in the group (Wenger-Trayner & Wenger-Trayner, 2015). CoPs help to facilitate knowledge mobilization between established cultures. The processes within the community are shaped by the actions, interactions and meaning-making processes of all participants in the community (Olaitan, 2020).

Boundary-spanning is defined as a set of communication and co-ordination of activities which is performed by individuals (boundary-spanners]) within an organization and between organizations. The objective is to integrate activities across multiple cultural, institutional and organizational contexts" (Schotter, Mudambi, Doz, & Gaur, 2017). Boundary-spanners are particularly critical for the coordination and adaptation of processes with substantive tacit, cognitive, creative and innovative elements. They are more relevant in settings where distances – particularly spatial distance is likely to create challenges for collaboration between different individuals or teams (Minbaeva & Santangelo, 2018). In VUCA, it is critical to recognize employees' decision-making autonomy (Colman & Rouzies, 2019). Project leaders are classic boundary spanners who have the capacity to leverage their key position in the project network. They are likely to a boundary spanning environment and promote cooperation and team work among the stakeholders (Meerkerk & Edelenbos, 2018). The nature of interpersonal interactions between boundary spanners has a significant impact on how interactions develop within an organization (Pulles & Hartman, 2017).

The need for spanning knowledge boundaries is apparent. Colman and Rouzies (2019) posit that actors outside the organization's formal hierarchies with entrenched relationships and boundary-spanning capacities, are pertinent to understanding an organization's integration processes. While advances in information technology have greatly enhanced the ability to exchange information and manage knowledge, rising external ambiguities, require more dynamic, agile and human-based coordination mechanisms, including boundary spanning. Tippmann, Sharkey and Parker (2017) aver that boundary-spanning is an enabler for creative solutions which are necessary to elevate knowledge transfer so that new knowledge can emerge through the facilitation of collective, repeated and interactive collaboration among employees. Tippmann et al. (2017) aver that boundary-spanning enables creative solutions which are necessary to elevate knowledge transfer through the facilitation of collective, repeated and iterative collaboration for generation of new knowledge.

Firms are increasingly opening their innovation processes by forming strategic alliances through partnerships and collaborating with external partners, such as industry, media, membership organizations, certification bodies, the academia, government, consumers among other relevant stakeholders (European Commission, 2013; Salmelin, 2013). Innovation requires not only research of external sources but also the development of an effective innovation solution that involves strong interaction and cooperation with knowledge partners and is founded on the sharing and combining of knowledge (Huikkola, Ylimäki, & Kohtamäki, 2013). Organizations require both incremental and radical innovation for prosperity (Obeidat, Tarhini, Aqqad, & Masa'deh, 2017). Removing the distance from the closed model, where innovation is produced inside the firm, requires managers to consider how a firm's creation of knowledge depends not only on what the firm realizes, but also on how firms interact with each other and this implies connections with external actors.

As a standard practice, standardised processes have been outsourced but it is inquisitive that organisations decide to outsource high-end processes that are important in their value creation. Such processes are termed as knowledge processes and require competitive knowledge, analytical thinking and evaluation, judgement

and highly specialised skills (Lacity & Willcocks, 2013). Examples of such processes are animation, medical processes, R&D, engineering, technical services, market research, legal processes, financial planning, human resource accounting as well as risk management (Lacity & Willcocks, 2013). These authors postulates that the justification behind this development is to gain access to expert knowledge, lower cost as well as gain access to pools of highly talented people around the world.

Brewer, Ashenbaum and Ogden (2013) states that some firms outsource goods or services as part of strategic cost reduction efforts, whereas others utilize outsourcing to offload activities in which the firm does not have a competitive advantage, thus retaining core competencies in-house. Others pursue outsourcing as a growth strategy, leveraging their supply base to meet rapidly increasing customer demand, to gain access to new markets or to gain access to external resources that are infeasible to develop in-house.

2.3.5 Strategic Human Resource Management Practices (SHRMs)

Strategic HRMs entails the deliberate quality practices and activities that are vertically linked with organizational business strategies. Such strategies are parallel with each other to attain a strategic fit (Uysal, 2019). SHRMs, goes beyond administrative approaches in managing workforce (Delery & Roumpi, 2017). SHRMs represents a framework of deliberate human resource practices that seek to ensure that an organization has knowledgeable, skilled, competent and motivated workforce (Armstrong & Brown, 2019). The objective of having SHRMs in place is to ensure that organizations align their human resource practices with strategic organizational goals (Boon, 2018). According to Katou (2021), there is no agreement between researchers about the strategic HR practices that constitute the content of an HRM system. Haque (2020) posits that strategic HR practices entail selective staffing, self-managed teams, decentralized decision making, training and development, job security, flexible job assignments, open communication, collaborative work environment and performance-based compensation, (Takeuchi, Lepak, Wang & Takeuchi, 2007; Leana & Van Buren, 1999). Managers underscore

the importance of designing SHRP to promote knowledge sharing, acquisition, creation, application and utilization among employees.

SHRMs, such as team and skill-based staffing, pay contingent to performance, competence based training and enriching job experience are antecedents to developing employee's knowledge (North & Kumta, 2018). Companies have the ability to influence the behaviour and employee motivation using strategic HR practices (Hendarsjah, Susanto, Sugianto, Handoko, & Trinugroho, 2019). Recruitment and hiring right skills is a critical HRM practice (Collins & Kehoe, 2017). Wright et al., (2018) aver that a selective hiring process reduces the possibility of job attrition and boosts employee performance and efficiency. In addition, it saves time taken during recruitment process and increases chances of recruiting the right candidate.

A competitive reward system pegged to performance may be pegged to performance to actively engages the workforce to fulfil the firm's objectives and provides employees with stimulants for the quality of performance (Desa & Asaari, 2020). Such rewards can be formal or informal (Taylor & Aldridge, 2017). An organization may employ knowledge management strategies and rewards systems that seek to promote competence of knowledge workers, integrate knowledge sharing and creation into rewards and appraisal system and bring collaboration amongst the employees (North and Kumta, 2018). Hong, Zhao and Snell (2019) posit that self-managed teams improves sense of responsibility. HRM can maintenance employee relationships and teamwork knowledge (Bouaziz & Hachicha, 2018).

Strategic HRM is a process that involves the use of overarching approaches to the development of HR strategies, which are integrated vertically with the business strategy and horizontally with one another. These strategies define intentions and plans related to the overall organizational considerations, such as organizational effectiveness, and to more specific aspects of people management, such as; resourcing, learning and development, reward and employee relations. Strategic HRM focuses on actions that differentiate the firm from its competitors (Dixit & Sinha, 2021).

According to Alolayyan, Alyahya and Omari (2021) refers HRM practices and policies that influence behaviours, attitudes and performance of employees. They are focused on several important practices which, in turn, can positively impact organizational performance, such as human resource planning, recruitment, selection, training and development, compensation, performance management and employee relations. Pfeffer reshapes these practices into seven HRM practices; these practices are expected to enhance performance and enable the organization to gain a competitive advantage. Such practices are detailed as follows (Thuo, Senaji & Kirimi, 2018). Employment security, Selective hiring of new personnel, Self-managed teams and decentralization of decision-making as the basic principles of organizational design, comparatively high compensation contingent on organizational performance, Extensive training, reduce status distinctions and barriers, including dress, language, office arrangements, and wage differences across levels, Extensive sharing of financial and performance information throughout the organization

Strategic management of human resources represents a transformation that is relatively new in the field of human resource management. An important role of strategic human resource management is about focusing the management in employees as a tool to gain competitive advantage. Now, organizations are made aware that successful human resources policies and practices of appropriate can increase performance in various areas such as productivity, quality and financial performance (Uysal, 2020).

2.3.6 Performance of Commercial Banks

Performance refers to the execution or achievement of work or other activities for a person, machine, company and so on (Cambridge University, 2020). Performance is a multi-faceted construct that compares the actual output against indented output (Katou, 2021). It is a mechanism to implement organization strategy for the purpose of constantly improving the probability levels (Dulanjani & Priyanath, 2020). According to Lee and Ha-Brookshire (2018), an organization that achieves a high

level of sustainable performance is more likely to realize the stakeholders' needs, and achieve a higher competitive advantage.

Colquitt et al. (2017) contend that job satisfaction is a gratifying emotional state that arises from ones' appraisal for his/her job. It represents how employees not only   but also think about their job. Job satisfaction represents the general attitude, emotions and personal positive feelings that an employee has towards their job. Appreciation and happiness are attributes closely related to job satisfaction (Hutahayan, 2019). A satisfied employee is eager to complete a job to the best ability while observing high work standards. On the contrary, a less satisfied employee has no enthusiasm to complete the work. It is critical for employees to feel satisfied with their jobs. Satisfied employees have the ability to bring many benefits to an organization which in turn translate to productivity increase (Siengthai & Pila-Ngarm, 2016; Dechawatanapaisal, 2018). An employee may be bored and   frustrated and more so, depict poor attitude towards work (Hutahayan, 2019). Firms that offer an environment that eliminate negative stimuli result to employee's job   satisfaction (Anglin et al., 2017). Satisfied employees are more likely to work under pressure and are more likely to be identified with the organisation. Job satisfaction is personal meaning that it pertains to individual characteristics of those who are concerned (Solimun & Fernandes, 2017).

In the literature, various terms have been used to describe employee productivity such as employee performance (Anitha, 2014). Employee productivity can be defined as the relationship between output and input or between results and sacrifice (Kale & Gawade, 2016). Productivity describes an outcome of the performance – the quantity of output that results from performance behaviors, external context as well as opportunity factors (Zhang et al., 2020). Refining employee productivity is a critical role for an organization that seeks not only achieve its objectives, but to become beneficial to its employees (Hanaysha, 2016).

Bendor-Samuel (2020) avers for an organization to improve its productivity it should put measures in place to monitor productivity on an ongoing basis. When a company puts in place measures to encourage its employees, it affects employee productivity

(EP), which in turn translates to better company performance (Peluso et al., 2017). Improving EP is rated as one of most critical objectives of the organizations. High levels of EP are not only important to employees, but to the organization as well (Hanaysha, 2016). Bendor-Samuel (2020) contend that it is important to understand that a various factors affect and drive productivity. Among these factors are communications, workforce talent and individual decision rights. Thuo et al. (2018) aver that that increasing productivity seeks to advance efficiency in production of goods as well as services. Likewise, productivity seeks to express how to maximize the use of existing resources in production of goods and services.

Market share is a measure of the performance of an organization relative to its competitors in a particular industry. Daneshgari and More (2016) aver that a market's size and characteristics have been primary indicators of any company and industry's health since the early 20th century. The power of the market allows organizations with higher market shares to achieve lower input costs; thus, these organizations act as price fixers rather than being followers of the market (Lee, 2013). Commercial banks in Kenya are classified into three peer groups using a weighted composite index. The index comprises of the following indicators; net assets, customer deposits, capital and reserves, number of net assets, reserves, number of deposit accounts and the number of loan accounts. A bank with a weighted composite index of 5% and above is classified as a large bank. A bank with a weighted composite index of between 1 % and 5 % is classified as a medium bank while a small bank has a weighted composite index of less than 1% (CBK, 2015). Market share represents the percentage of an industry or market's total sales that is earned by a particular company over a specified time period. Market share is calculated by taking this metric to give a general idea of the size of a company in relation to its market and its competitors.

$$\text{Market share} = \frac{\text{Company's sales over the period}}{\text{Total sales of the industry over the same period}}$$

The profitability concept takes the consideration and the responsibilities that firms have towards their shareholders. The main objective is achieving profit maximization

relative to shareholder expectations (Agyabeng Mensah et al., 2020). According to Jugdev, Mathur and Fung (2019) financial performance includes profitability indicators, such as sales growth rate and economic value-added, while non-financial performance includes features such as innovation performance, market share, productivity and quality. Data analysis, selection of key indicators, assessment of performance criteria, communication and reporting to decision-makers the results of these processes are undertakings that help to evaluate bank performance (Ranatunga, Priyanath & Megama, 2020). Prayudi and Daud (2013) aver that the most significant measure of profitability is net income.

2.4 Empirical Review

There are a number of related studies and theoretical literature from global and within Kenya context about knowledge management strategies. This chapter made a review of relevant past research studies. The literature analysed point out different studies that demonstrate the relationship between knowledge management strategies and performance of commercial Banks. The research model illustrated validates and examines the relations between research variables: independent variables (knowledge management strategies) dependent variable (performance), and the moderating variable (strategic human resource management practices).

2.4.1 Tacit-Oriented Knowledge Management Strategy

Shahzad (2016) sought to establish if integration between knowledge strategy and knowledge management (KM) processes has significance on creativity and performance. The study used quantitative strategy and cross-sectional survey method to collect data. Feedback was collected from 219 randomly selected respondents from 173 listed organizations through self-administered questionnaire. Hypothesis was tested using factor analysis and multiple regression techniques. Results obtained revealed that there is a significant positive impact of system-oriented KM systems strategy on KM process capabilities, creativity and organizational performance. No significant impact was found on human-oriented KM strategy (personalisation) on different KM processes and organizational performance. KM processes was established to have a significant impact on organizational creativity and performance,

and organizational creativity was found as having a strong significant impact on organizational performance. However, human-oriented strategy was found not to be instrumental toward performance of an organization.

Marouf (2016) explored the role of knowledge sharing (KS) culture in leveraging knowledge management strategy and human resource strategy to improve business performance (BP). Structured questionnaires were distributed to 120 randomly selected organizations in Kuwait. 392 valid responses were collected and tested using a structural equation model. Statistical analysis was conducted using SPSS and LISREL software to verify the research hypotheses. The results obtained revealed the influence of the mediating variable KS culture on the enhancement of BP. KM strategy and HR strategy were observed to have a positive direct effect on KS culture.

In studies conducted by Cheng (2017) a mixed-method approach was adopted as the research strategy. Across-sectional quantitative survey was conducted to collect data from 445 teachers at 13 primary schools in Hong Kong. A structural equation model (SEM) was applied to confirm the predictive effective of knowledge strategies on school IC. Interviews were conducted in a case school to explore the process for capitalising the knowledge by Lesson Study. The SEM's findings demonstrate that explicit-oriented knowledge management and personalization are effective predictors of both human and structural capital in educational institutions. The results of the principal and teacher interviews indicate that a personalized and explicitly focused knowledge management strategy might be implemented as a lesson study to use knowledge for school improvement. It has been established that personalization strategy can predict structural capital.

2.4.2 Explicit –Oriented Knowledge Management Strategy

Prior empirical studies have examined the relationship between KMS and organizational performance. For instance, Wang and Lin (2013) confirmed that knowledge management orientation played positive role in promoting organizational performance in China. Mahapa (2013) studied the impact of KM strategies on organizational performance in the hospitality industry in Zimbabwe and concluded

that organizations which have KM strategies in place are likely to develop new ideas and new products, and carry out activities in innovative ways that lead to enhanced organizational performance. The studies recommend organizations to exploit their knowledge resources so as to improve performance. This study concluded that system-oriented (explicit-oriented knowledge management   strategy is instrumental to performance.

Shehata (2015), sought to examine the impact of adopting knowledge management systems (KMSs) on firms' performance. The empirical study related to this research was conducted on knowledge-intensive firms operating in the field of ICT. The research is descriptive in nature where a quantitative research design is adopted to survey senior managers' perceptions from both national and multinational enterprises operating in Egypt on the pay-off maintained from creating an integrative KMS. Primary data was collected from 90 managers who occupied significant top positions related to knowledge management. A linear simple regression test was conducted to establish the association between the conceptual model's key variables. The studies established a significant positive association between the adopted total KMS and the perceived knowledge management performance.

Kalei (2015) sought to examine the effect of intra-firm institutionalization of explicit knowledge on employee performance in the energy sector in Kenya. The study adopted explanatory research design that focused on the use of qualitative and quantitative research design. The target population was 22,173 employees in nine organizations in the energy sector in Kenya. Survey data was collected by use of a structured questionnaire while data reliability was carried out using Cronbach's Alpha formula. Factor analysis was used to determine the validity of data.

Normality test for the dependent variable was done using Kolmogorov-Smirnov Test based on the size of the sample. The study adopted descriptive statistics, correlation analysis and multiple regression models to test whether explicit knowledge acquisition, explicit knowledge processing and explicit knowledge dissemination had a significant effect on employee performance. Study findings showed that institutionalization of explicit knowledge had a positive significant effect on

employee performance since all the identified factors were significant predictors of employee performance.

2.4.3 Internal – Oriented Knowledge Management Strategy

Wang, Wang and Zhao (2019) examined the relationship between knowledge accumulation, enterprise development potential, and production efficiency, based on financial data of A-stock listed environmental protection enterprises from 2009 to 2016. The study concluded that knowledge accumulation has a positive influence on enterprise development potential, has an indirect influence on enterprise growth. Wang et al. (2016) carried out studies whose aim was to assess the fit between intellectual capital (IC) and knowledge management (KM) strategy and its influence on organizational performance. The authors tested the research model using survey data collected from 328 high technology firms in China. The studies established that the more fit a firm's IC is to its KM strategic type, the better operational and financial performance it can achieve. The sample of high technology firms in China might limit the generalization of the findings. This study is based on and extends prior research, which provides a deepened understanding of the role of IC-KM strategy fit in organizational settings. The study proposes that to succeed, firms should harmonize their IC with KM strategy.

Uzkurt et al. (2013), sought to establish the relevance of the mediating role of innovation on the relationship between organizational culture and performance. Data were collected through a survey undertaken from 154 branches of ten prominent banks in Turkey. The responses were analysed to examine the relationship between organizational culture, firm performance and organizational innovation. The findings revealed that although organizational culture and innovation have a direct and positive effect on the firm performance dimensions, organizational culture was found to have an insignificant regression coefficient on the dimensions of firm performance in the existence of organizational innovations. The findings highlight those mechanisms to encourage and foster an innovative culture in the organization are likely to enable the introduction, adoption and diffusion of innovations which, in turn, is likely to result in the realization of superior organizational performance. Díaz

and Pérez, (2014), undertook studies aimed at identifying the external sources of knowledge that exploit internal knowledge for the purpose of innovation. A section of 1,266 firms that responded to the survey of business strategies for a five-year period was used, which represents a total of 6,330 observations. The results indicated that firms with excess of internal sources of knowledge do not obtain better innovative results because over time they tend to inertia and need external sources of knowledge to obtain new knowledge and supplement the internal knowledge.

Therefore, firms that select their strategies to combine knowledge appropriately are likely to have better results. The studies reveal that the positive effect of internal sources of knowledge on innovation decline after it reaches a high level because those firms with strong absorptive capacity may enter a state of organizational inertia that reduces their innovation. This research enhances the importance of identifying the external knowledge sources likely to be adopted, since their impact on innovation differs depending on the level of internal knowledge.

2.4.4 External- Oriented Knowledge Management Strategy

Studies undertaken by Siahtiri, Heirati and O'Cass (2020) reveal that external knowledge can improve technical competency in developing successful solutions and, in turn, translate to solution performance. Studies by González, Sáez, López and Verde (2014), sought to identify the different directions of external knowledge search and to investigate their individual effect on performance at the firm level. The empirical study is based on survey data gathered from two distinct informants of 248 large- and medium-sized high-tech manufacturing Spanish firms. Quantitative methods based on questionnaire answers were used. Findings reveal six distinct external search patterns and indicate that while market sources such as customers and competitors are positively associated with performance, knowledge acquired from general information sources other than beyond the core business, patents and databases have no significant effect. This assumption has the implication that more openness to external knowledge is not always better. It is necessary to carefully evaluate the potential gains and pains of each source.

Research conducted by Ferraris, Santoro and Dezi, (2017) with an objective of exploring the effect of knowledge management (KM) practices on the relationship between external research and development (R&D) and innovative performance uphold that firms which develop and possess superior KM capabilities are more successful in managing external knowledge in addition to combining it with the internal one. The study used a sample of 117 European MNC subsidiaries. An OLS regression analysis was conducted to assess the moderating of effect of KM on the relationship between external R&D and innovative performance.

The researchers found positive evidences in favour of a moderating effect of KM. The studies pointed out that subsidiaries with superior KM capabilities are likely to be more effective in using external R&D, augmenting the magnitude of their external sources of knowledge and, consequently, improving their innovative performance. Both corporate and subsidiaries' managers need to understand the relevance of managing knowledge effectively and efficiently at the subsidiary level. Management should increase the allocation of financial and managerial resources to the subsidiaries that are keen to promote knowledge transfer and sharing, while subsidiaries managers need to implement the KM tools, processes and methods at the subsidiary level to improve the subsidiary's innovative performance.

de Oliveira Paula and da Silva (2017) carried out a study to explain how internal and external sources of knowledge influence the innovation performance in Italian manufacturing firms and how different these relationships are for low-technology and high technology firms. The study proposed a model relating external knowledge, internal knowledge and innovative performance that was tested using Bayesian structural equation modelling with a sample of Italian manufacturing firms of Community Innovation Survey 2010. The results presented a difference between high-tech and low-tech manufacturing firms in Italy. The investments to leverage internal knowledge sources are important for high-techs and not significant for low-techs. On the other hand, the level of external knowledge strategy improves significantly the IP of low-techs and has a negative effect for high-techs. The level of absorptive capacity is central to improve the positive effect of the external knowledge on the IP for all firms, but it is still underdeveloped.

A sample of 117 European MNC subsidiaries was used to examine the effect of knowledge management (KM) practices on the relationship between external research and development (R&D) and innovative performance. Ferraris, Santoro and Dezi (2017) contend that firms which develop and possess superior KM capabilities have the ability to manage external knowledge in addition to combining it with the internal one. An OLS regression analysis employed to evaluate the moderating effect of KM on the relationship between external R&D and innovative performance. The research established that subsidiaries with superior KM capabilities are more successful in using external R&D, augmenting the magnitude of their external sources of knowledge and, subsequently, improving their innovative performance.

Studies conducted by Ham, Choi, and Lee, (2017) focused on how SMEs' innovation performance varies depending on its knowledge sourcing approaches. This study first proposed three different approaches of innovation: the internal knowledge-oriented approach, the external knowledge-oriented approach, and the open innovation approach (i.e. combining internal knowledge-oriented and external knowledge-oriented approach). As a sampling frame, 926 SMEs were identified from the Annual Corporation Report in Korea. Results indicate that an external knowledge-oriented approach has no significant effect, whereas an internal knowledge-oriented approach has a positive effect on innovation performance. This study established that open innovation has a negative effect on SMEs innovation performance. The studies concluded that there is a substitutive relationship between internal knowledge-oriented and external knowledge-oriented approaches.

2.4.5 Strategic Human Resource Management Practices

Past studies have acknowledged the critical role played by strategic human resource practices (SHRMs) in supporting knowledge management process (Iqbal et al., 2020). Farouk et al. (2016) sought to explore the impact of human resource management practices on performance in the banking sector in the United Arab Emirates (UAE). The studies sought to test the mediating impact of organizational innovation on the HRM-organizational performance relationship, in addition to testing HRM practices as mediator of the relationship between innovation strategy

and organizational innovation. Data were collected from 168 managers working in UAE banks. A structured questionnaire containing standard scales of HRM practices, innovation strategy, organizational innovation, organizational performance, and a number of demographic variables was used to collect data. Structural equation modelling technique was used to empirically test hypothesis. Findings showed that organizational innovation mediates HRM-organizational performance link. Moreover, with the presence of innovation strategy, HRM mediates the relationship between innovation strategy and organizational innovation. The results provide new understanding on the influence of HRM on organization innovation and performance by testing the role of certain mediators in influencing the relationship between HRM and organizational performance.

Likewise, Patil and Kant (2012) used a case study method to examine how various HR activities such as education, training, rewards and incentives affect organizational performance. They found that these activities facilitated organizations to overcome barriers to KM and, ultimately, to improve performance and achieve competitive advantage. Hamid (2013) used a universalistic approach to study the impact of HR practices on BP in 114 selected industrial firms. The research focused on the effect of selection, training, and incentive compensation on organizational and financial performance. The results confirmed that the implementation level of certain strategic HR practices positively influences firm performance. Based on the study, it is rational to conclude that HRM practices play an important role in harnessing core competencies and employees' performance.

Georgios, Theriou, Prodromos and Chatzoglou (2014) carried out research, in an attempt to empirically examine the relationships between best human resource management (HRM) practices, knowledge management (KM), organization learning and organizational capabilities (OC), as well as their impact on organizational performance. A structured questionnaire was designed and distributed to 212 manufacturing firms which employ at least 50 employees. The results indicated that manufacturing firms pursuing best HRM practices achieve higher performance through the interaction of these practices with KM and organizational learning capability and the creation of OC.

Similarly, Massis (2015) sought to emphasize that hiring a library employee in possession of a positive and winning attitude can pay enormous benefits for the organization far into the future. Literature review and commentary on this topic has been addressed by professionals, researchers and practitioners. Findings indicate that while it can be difficult to completely be certain that one has made the right choice with every hire, at least by developing a set of effective interview questions, listening closely to the candidate's responses and appraising any negative bent in mood or language with the objective of assessing attitude at the outset of the interview can lead to a more successful hiring.

Studies carried out by Kyambi (2015), sought to explore whether diversity recruitment diversity training, diversity retention and institutionalization of diversity were salient human resource diversity practices which if fully utilized could better the performance of non-commercial government agencies in Kenya. The study adopted descriptive research and the target was 132 human resource managers drawn from the 132 non-commercial government agencies in Kenya. Primary data was collected using semi structured questionnaires. The study adopted both qualitative and quantitative analytical techniques for data analysis.

Descriptive statistics indicated that performance in non-commercial government agencies in Kenya was to a large extent influenced by diversity recruitment, diversity training, diversity retention, and institutionalization of diversity. Senior management accountability was established to positively moderate the relationship between human resource diversity management practices and organizational performance. The study resolved that diversity recruitment, diversity training, diversity retention, and institutionalization of diversity were key human resource diversity practices likely to influence and improve performance.

In relevancy of the discussion, Figueiredo et al. (2016) sought to explain and empirically test the dependence of organizational processes related to knowledge on the nature of assumptions operating in processes of HRM in organizations. It concentrated on practices related to training, career development and retention. It was quantitative in nature and the sample made up of 5,306 collaborators in 634

organizations belonging to an economic group in the banking sub-sector. Data were collected through two sets of questionnaires; Strategic Human Resource Management questionnaire and knowledge management questionnaire. The model was tested by applying univariate and multivariate multiple regression analyses.

Further, studies by Ngui (2014) sought to examine the effect of human resources management strategies on the performance of commercial banks in Kenya. The study adopted a mixed method approach. Specifically, the study adopted the survey method using a population of 46 banks and 2,738 employees. A sample of 349 employees was selected using stratified random sampling method. Data was collected using structured self-administered questionnaires and interviews. Data analysis involved statistical computations for averages, percentages, and correlation and regression analysis. Statistical computer software (SPSS and Ms Excel) was used to analyse data.

Analysed data was presented using tables, charts and graphs. The studies concluded training and development, recruitment and selection, relations, reward and compensation strategies have a significant positive effect on performance of commercial banks in Kenya. The studies further established that when banks reward system combine both financial and non-financial rewards, employees are likely to be motivated hence, increased commitment which is likely to lead to increased performance. Results obtained in this study confirm the close relationship of dependency between organizational management processes, people and knowledge, showing the positive effect of best practices of HRM on KM processes, as opposed to traditional or transactional practices.

2.4.6 Performance of Commercial Banks

In advancing the discussion on the mediating role of innovation on the relationship between organizational culture and performance. Uzkurt et al. (2013), sought to explore data which was collected through a survey from 154 branches of ten prominent banks in Turkey. The responses were studied to evaluate the relationships between organizational culture, firm performance and organizational innovation. Results obtained from the study revealed that although organizational culture and

innovation have a direct and positive effect on the firm performance dimensions, organizational culture was found to have insignificant regression coefficient on the dimensions of firm performance in the presence of innovations. Studies by Daneshgari et al. (2016) which were conducted in a mid-size construction company with three offices in Chicago, IL; Springfield, IL; and Milwaukee, WI., transformed itself from a construction contractor to a vibrant business that strives to be an employer of choice, while increasing its productivity, profitability and market share. The study aimed to help businesses understand that as markets change, the way a company does business also must change to stay competitive in their industry. It was found that working together as a team and learning together to create standardized processes improved the company's overall profitability, increased sales and expanded their market share.

Likewise, Sahile, Tarus and Cheruiyot (2015) carried out studies whose purpose was to test market structure-performance hypothesis in the banking industry in Kenya. The structure-conduct-performance (SCP) and market efficiency hypotheses were examined to determine how market concentration and efficiency affect bank performance in Kenya. The study used secondary data of 44 Commercial banks operating from 2000 to 2009. Three proxies to measure bank performance were used while market concentration and market share were used as proxies for market structure. Market concentration was measured using two concentration measures; the concentration ratio of the four largest banks and Herfindahl-Hirschman Index, while market share was used as a proxy for efficiency.

The study made use of generalized least square regression method. The empirical results confirm that market efficiency hypothesis is a predictor of firm performance in the banking sector in Kenya and rejects the traditional SCP hypothesis. Thus, the results support the view that efficient banks maximize profitability. The study provides insights into the role of efficiency in enhancing profitability in commercial banks in Kenya. It has managerial implication that profitable banks ought to be efficient and dispels the notion of collusive behaviour as a precursor for profitability. Comparably, undertaken by Odhon'g and Omolo (2015) revealed that there exists a statistically significant affiliation between human capital investment and

organizational performance. Skills developments, education, knowledge management and training were found to have significant relation with organizational performance.

Similary, Ochieng et al. (2015) carried out a survey seeking to establish the effect of ISO 9001 implementation on the performance listed firms in Kenya. Web content analysis was used to collect data from the organizations' web sites. Data were collected on net profit, turnover and net assets over a four-year period (2010-2013). The research used statistical data analysis to investigate the association between ISO 9001 implementation and performance. The results of the survey revealed that ISO 9001 certification influenced return on net assets of the organizations thereby influencing their performance. There were significant differences in net asset value among organizations with ISO 9001 certification and those that did not possess the certification. On profit and revenue, there were no significant differences between the ISO 9001 certified and non-certified organizations.

Along the same discussion, studies carried out by Gathuku and Njeru (2016) whose main objective was to establish the effect of merger on financial performance of commercial banks in Kenya comprised of all the 14 banks that have merged between 2000-2011. The study used secondary sources of data from published audited annual reports of accounts for the population of interest. Financial data from the statement of financial position, profit and loss accounts, and cash flow statements of the 14 banks for the 11 years was used to calculate and analyse accounting ratios, also known as performance indicators. The study then used accounting ratios to analyse the financial performance of the 14 banks under study. The study concludes that Commercial banks financial performance improves with the merger/acquisition.

2.5 Critique of the Existing Literature Relevant to the Study

Analysis of literature review revealed theoretical, conceptual, contextual, methodological limitations that make the findings not applicable to the contextual application of the findings arising from the current study. The studies assessed in the empirical studies and found to be relevant to the study informed the basis for the critique. Studies by Mahapa (2013) focused on the impact of KM strategies on organizational performance and concluded that organizations which have KM

strategies in place tend to develop new ideas and new products, and do things in innovative ways that lead to improved organizational performance. This conclusion was corroborated by Shehata (2015), who aver that there is a significant positive association between the adopted total KMS and perceived knowledge management performance. These studies were further supported by Kalei (2015) who found that institutionalization of explicit knowledge can have a positive significant effect on employee performance. The findings are necessary to create an enabling environment which allows employees to have an opportunity to have real time and permanent access to organizational memory at any given time. It also helps to create a room for organizations to link performance with the strategies that they have put in place. In addition, the study concentrated on firms in a developed countries and in a different sector of the economy. The findings of these studies however, cannot be applied in the context of the current study which mainly focused on the relationship between knowledge management and performance of commercial banks in Kenya.

Studies discussion by Shahzad (2016) revealed that there is a significant positive impact of system-oriented KM systems strategy on KM process capabilities, creativity and organizational performance. However, human-oriented strategy was found not to be instrumental toward organizational performance. The studies The studies were contradicted by Cheng (2017), whose results indicate that personalisation strategy was a predictor of structural capital. The significance of these studies is that personalisation is a predictor of performance in enhancing creativity as opposed to being in similar studies, Marouf (2016), sought to establish the role of knowledge sharing (KS) culture in leveraging knowledge management strategy and human resource strategy to improve business performance (BP). The results pointed out that KS culture had a significant role to play in mediating variable KS culture on the enhancement of BP. KM strategy and HR strategy were observed to have a positive direct effect on KS culture. This study has confidence in the research findings, the generalisations and the recommendations arising from these studies. The studies however, concentrated on particular variables rather than a holistic approach to management of knowledge and particularly in the banks. The complexity and diversity of the study are likely to produce different results in a

different contextual environment. The study focused on different set of variables hence the findings cannot be extrapolated to all knowledge management strategies.

Similarly, Wang et al., (2016), focused on the fit between intellectual capital (IC) and knowledge management (KM) strategy and its influence on firm performance and suggested that firms should adjust their IC according to KM strategy they employ. Uzkurt et al. (2013), sought to examine the mediating role of innovation on the relationship between organizational culture and firm performance. The study findings emphasize that mechanisms to encourage and foster an innovative culture in the organization are likely to facilitate the introduction, adoption and diffusion of innovations which, in turn, is likely to result in achievement of superior firm performance. These studies measurements of KM were not clear and in addition, did not depict a direct relationship with this study. Tacit, explicit, internal and external oriented knowledge management strategies were not among the measures used to manage knowledge.

In Díaz and Pérez (2014), the purpose of the research was to study the external sources of knowledge that better exploit internal knowledge in order to innovate. The results reveal that the positive effect of internal sources of knowledge on innovation decline after it reaches a high level because those firms with strong absorptive capacity may enter a state of organizational inertia that reduces their innovation. Studies by González, Sáez, López and Verde (2014) sought to identify the different directions of external knowledge search and to investigate their individual effect on performance at the firm level and concluded that more openness to external knowledge is not always better and managers should thoroughly analyse the potential benefits before making additional investments devoted to learn from it. The study however, was conducted in Europe which has different contextual environment hence applications of the study findings in the context of organizations undertaking operations in emerging economies such as Kenya was limited.

Research conducted by Ferraris, Santoro and Dezi, (2017) whose purpose was to explore the effect of knowledge management (KM) practices on the relationship between external research and development (R&D) and innovative performance,

argue that the firms which develop and possess superior KM capabilities have the ability to better manage external knowledge and combine it with the internal one with an aim to improve subsidiary's innovative performance. Paula and Silva (2017) sought to explain how internal and external sources of knowledge influence the innovation performance. The results showed a difference between high-tech and low-tech manufacturing firms. Strategies required to manage knowledge in high-tech and low-tech manufacturing firms are different from the KMS in commercial banks. Therefore, the contextual difference limits the application of these study findings.

The investments to leverage internal knowledge sources are important for high-techs and not significant for low-techs. On the other hand, the level of external knowledge strategy improves significantly the IP of low-techs and has a negative effect for high-techs. Ferraris, Santoro and Dezi (2017) aimed to assess the effect of knowledge management (KM) practices on the relationship between external research and development (R&D) and innovative performance. The study findings indicated that subsidiaries with superior KM capabilities are more effective in using external R&D, augmenting the magnitude of their external sources of knowledge and, consequently, improving their innovative performance. Ham, Choi, and Lee, (2017) focused on how SMEs' innovation performance varies depending on its knowledge sourcing approaches. This study found that both internal knowledge-oriented and external knowledge-oriented approaches have a substitutive relationship. The study focused on internal and external knowledge management strategies in SMEs. Such findings are instrumental to such institutions. However, the findings may not be generalized in other sectors such as banks. SMEs organisation structure and size of the human resources is different from the structure of commercial banks hence, the findings on knowledge management strategies in SMEs cannot be extrapolated to commercial banks.

2.6 Research Gaps

From the foregoing review of relevant literature, different researchers have studied diverse topics on knowledge management and have likewise, reviewed a variety of literature. Past literature review by this study presents a number of gaps. Among

these gaps include; theoretical gaps, conceptual and knowledge gaps. Previous researchers (Shahzad, 2016; Marouf, 2016; Wang & Lin, 2013; Shehata 2015) focused on a few variables and other performance indicators, but none of the reviewed studies adopted an inclusive approach to strategic management of knowledge. In addition, none of the reviewed studies focused on the moderating effect of strategic human resource management practices. To fill the research gap, this study examined a framework of strategies variables that are considered to be significant but were not examined by previous studies. The study sought to fill the research gap by providing both theoretical and empirical supports for the link between KM strategy and firm performance in one integrated framework. The study is more comprehensive and appropriate for adoption in a dynamic environment.

The bulk of the previous studies have mainly concentrated on knowledge management strategies in developed economies leaving a paucity of literature for emerging economies such as Africa and Kenya, specifically. For instance, Wang and Lin (2013) confirmed that knowledge management orientation had a positive role in promoting organizational performance in China. Uzkurt et al. (2013), sought to establish the relevance of the mediating role of innovation on the relationship between organizational culture and performance through a survey undertaken from 154 branches of ten prominent banks in Turkey. It is appreciated that a moderator and a mediator have a different type of influence in research studies. González, Sáez, López and Verde (2014), sought to identify the different directions of external knowledge search and to investigate their individual effect on performance at the firm level in 248 large- and medium-sized high-tech manufacturing Spanish firms. It is acknowledged that the operating environment of manufacturing firms is different from that of banks. Past literature has been conducted in sectors different from commercial banks and are clearly inconsistent with this study. A comprehensive strategy may be critical in meeting the needs of a dynamic environment in which commercial banks operate as they seek to achieve different visions and become key drivers of social, economic and political growth of the country.

2.7 Summary of the Literature Reviewed

The literature reviewed knowledge management strategies and performance of commercial banks in Kenya moderated by the effect of strategic human resource management practices. The chapter presented concepts and definitions necessary to provide a context for the study. Various theories and models were reviewed and informed the basis of this study. The chapter presented a conceptual framework outlining the relationship between the independent variables, the moderating variable and the dependent variable of the study. Different empirical studies were examined and the chapter concluded with the assessment of the research gap in the literature reviewed.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The chapter describes the research methods and design that will be employed to achieve research objectives. It explores the data collection procedures and details of how pilot testing was undertaken. The chapter gives an outline of the study's sample size, population, and data gathering procedures. It presents and describes the procedure, methodology, statistical models and the techniques used to gather process, analyse and test the hypothesis formulated in the study.

3.2 Research Philosophy

A research philosophy is a belief about the way in which data relating to a phenomenon should be gathered, analysed and used. It therefore guides the research design to be adopted in the study. The research considered different research paradigms, matters of ontology and epistemology which relate to the development of knowledge, nature of the knowledge and assumptions about the way researchers view and examine it (Bryman, 2012). Epistemological issue concerns the question of what is (or should be) regarded as acceptable knowledge in the discipline. The researcher surveyed the main philosophical approaches that guide social science research, predominantly positivism and constructivism and chose the two approaches to guide the study (Creswell, 2014).

While constructivism philosophy is grounded on subjective reflection of the researcher, the positivism approach proposes an objective criterion where the observer is independent of the research methodology. These paradigms respond to the nature of the subject under study and complement each other's weaknesses. On one hand, positivists claim that there is a single, objective reality that can be observed, measured and generalized without bias using standardized instruments (Rubin & Rubin, 2011). The positivist paradigm has been selected with the suggested use of four criteria for maintaining efficient research. That is; internal

validity, external validity, reliability and objectivity. The research sought to adopt objectivism ontology as data collection was based on active involvement of the people within the organization set up.

Among the various research approaches, the qualitative research method is useful for comprehending the problem setting and focusing on culture, meaning or subjectivity. The qualitative researcher visits the "field", gathering information from interviews with individuals who can tell their stories (epistemological assumption). The objective method by contrast is useful for establishing reliability and validity by focussing on objectivity, measurement and statistics (Cooper & Schindler, 2014). A positivist philosophy is secured on the belief that reality is stable and can be observed and described from an objective view point without interfering with the phenomenon being observed. Positivism approach linked the theories with objectives in the study. The philosophy was useful in presenting the objectives in a clear and concise discussion as opposed to human feelings or subjective interpretation.

3.3 Research Design

This study adopted descriptive research design. A research design is an outstanding plan of approach to a research topic (Greener & Martelli, 2015). According to Mugenda (2013) the tenacity of descriptive research is to determine and report the way things are and it supports in establishing the current status of the population under study. The benefits of this design include the fact that it is an efficient way to collect information about a large group of people and secondly, it is a flexible medium that is standardized, so less susceptible to error, easy to administer and it can be tailored closely to the phenomena that the researcher desires to study. Research design supports the study to establish whether there exist a significant association between the variables at a particular point in time (Mugenda, 2018).

In addition, the design has enough provision for protection of bias and maximized reliability (Kothari & Garg, 2014). Qualitative and quantitative analysis was adopted whereby numerical values were used in the research process measurement to establish whether there existed a relationship between the independent and dependent

variables using structured survey questionnaires. Regression and correlation analysis was used in testing of hypotheses and subsequent generation of inferential statistics for prediction purposes (Kothari & Garg, 2014).

The provision of such a design facilitates research to be as efficient as possible in yielding maximum information. It is used to provide for the collection of relevant evidence with minimal expenditure of effort, time and money (Gitonga, 2015). Mugenda (2010) avers that this is the process that the investigator monitors from the initiation to completion of the study. It is significant because certain methods are only applicable for particular designs. The plan sets out the major processes and procedures that the researcher plans to follow (Pickard, 2013). The study design provides a reference for the collection and analysis of data and the choice of the design reflects decisions about the priority likely to be given to a range of dimensions of the research process such as; expressing connections between variables (Bryman, 2012).

3.4 Target Population

Cooper and Schindler (2014) defined a population as the total collection of elements to which the researcher wishes to make inferences. Population may also refer to all of a particular type of entity either limited by geographical location or one or more characteristics (Cramer & Howitt, 2014). The target population of study was the 43 commercial banks listed by CBK as at December 2017 (CBK, 2017). The unit of observation was management and operations staff in departments and units in the 43 banks. The target population of this study was 31,605 employees working in the 43 commercial banks in Kenya.

3.5 Sampling Frame

Mugenda and Mugenda (2010) posit that a sampling frame is a list of all sampling units for a study. The sampling frame refers to the population from which the sample was picked or the target population. Kothari and Garg (2014) aver that it is a physical representation of the target population and comprises all the units that are potential members of a sample. In this study, a census of all the commercial banks in Kenya

was conducted and data was obtained from the CBK. The sampling frame comprises of a list of all employees working in all the commercial banks in Kenya at various levels.

3.5.1 Sample Size and Sampling Technique

Sampling may be defined as the selection of some part of an aggregate or totality on the basis of which a judgment or inference about the aggregate or totality is made. In other words, it is the process of obtaining information about an entire population by examining only a part of it (Kothari, 2017). A sample is the subset of a population selected to participate in the study (Polit, 2017). Sampling techniques are the methods used to select a sample from the population by reducing it to a more manageable size (Saunders, Lewis & Thornhill, 2017). The quantitative method proposed by Cochran (1977) was used to compute the required sample size for the research. For the computation, the maximum variability of 0.5 was considered since the population comprised 10,000 elements and more. Using the formula below, the sample size was determined as follows:

$$n_0 = \frac{z^2 \; pq}{e^2}$$

Where: n = Sample size for large population

Z = Normal distribution Z value score, (1.96)

p = Proportion of units in the sample size possessing the variables under study, where for this study it is set at 50% (0.5)

e = Precision level desired or the significance level, which is 0.05 for the study

The substituted values in determining the sample size for a large population are as follows.

$$n= \frac{(1.96)^2 *(0.5)(0.5)}{(0.05)^2} = 384$$

The 384 potential respondents were selected using a simple random sampling method.

The target population was stratified according to the size of the commercial banks. According to Onen (2016), stratified random sampling is employed to group the population into subsets that share similar characteristics to ensure equal representation of the population in the sample. The strata depended on management cadre of employees which ensured that selected sample is representative of the target population. The study listed the 43 commercial banks staff according to their cadres and random sampling was carried to obtain a sample of 384 respondents which comprised of 15 top management employees, 95 middle level management staff and 274 operational staff in different departments and units.

Table 3.1: Sample Size

Size of the Bank	Population of Management Employees	Sample size
Top management staff	1260	15
Middle level management staff	7812	95
Operations Staff	22,533	274
Total	31,605	384

3.6 Data Collection Instruments

Creswell (2017) defines data collection as a means of obtaining information from selected target population. The type and quality of data collected in any study should be plausible. To ensure the integrity of data, credible data collection instruments (a questionnaire, interviews and document analysis) was employed during the research process. A research instrument is a testing device for measuring a given phenomenon (Mwituria, 2012). The questionnaire, which was created based on the study's aims and major hypothesis and given to respondents, served as the primary research tool utilized to gather primary data.

To gather information, a structured questionnaire was used. A 5-point Likert Scale was used to develop both open-ended and closed-ended questions. Descriptive statistics were used to examine the data, and version 23 of the Statistical Package for Social Sciences (SPSS) was used. Kothari (2007) defines primary data as those which are collected afresh and for the first time, and thus happen to be original in character.

Questionnaire was adopted by this study as the data collection tool. Questionnaire is a measuring tool intended at communicating to the researcher what is required and obtaining information from the respondents with the focus of attaining the objective of the study. Kothari (2015) stated that structured questionnaires best suit a descriptive study because of ease of use and the skills needed are less. According to Saunders, Lewis and Thornhill (2017), a questionnaire is an overall term that generalizes all other techniques that are used in collection of data where the respondents are asked questions in a manner that was already determined. They include interviews (structured) and questionnaires through the telephone which includes the ones that are answered when the interviewer is not present.

3.7 Data Collection Procedures

The study adopted two main methods to collect primary and secondary data. Primary data was obtained by use of self-administered questionnaire using drop and pick technique. Participants were initially contacted via email and telephone calls, through which further contact was established to agree on form, time and date for interview and filling of questionnaire. A questionnaire is an inquiry that is used to collect and find answers to a given question (Cresw Kaushal & Singh, 2017). Koponen, Mäki-Opas and Tolonen (2013) pointed out that questionnaires are cost effective and minimize interviewer bias hence promoting accuracy during data collection. The research adopted a structured questionnaire with open and closed ended questions designed on a five Point Likert scale to collect data. Gitonga (2015) posits that the questionnaires must be carefully prepared to be accurate and hence effective when collecting data. Mugenda and Mugenda (2011) suggest a number of effective techniques when designing a questionnaire. Among the techniques include;

71

simplicity, logical sequence, avoidance of technical terms and vague expressions and avoidance of request for personal data.

The study employed self-administered questionnaires with the assistance of trained assistants to all respondents of the study. The study exercised care and control to ensure that all the questionnaires issued to the respondents were received. To achieve the objective, the researcher maintained a register of questionnaires that were administered and those which were received. The questionnaires were administered using a drop and pick later method and each was accompanied by a cover letter addressed to each of the respondent. To fast track, the process, the researcher made follow-up calls as a reminder to ensure that adequate response was obtained from the respondents. Questionnaires are economical to administer in terms of time and cost to a large number of respondents (Descombe, 2014). Kothari and Garg (2014) corroborate this statement and extends that a questionnaire gives the respondents' adequate time to give well thought-out answers. The questionnaire contained both open and closed ended questions. Bryman (2012) avows that respondent are asked a question and can reply however they wish with open ended questions. Closed questions present a set of fixed alternatives from which they have to choose an appropriate answer for the question. The interview guide was designed to comprise among others different types of interview questions that ranged from introductory and follow-up questions to open-ended as well as probing questions (Brinkmann & Kvale, 2015). The objective of using the questionnaires was to give a chance to the participants to speak freely about their understandings of the study topic and variables. All the interviews which were undertaken followed an interview guide.

3.8 Pilot Testing

To refine, pre-test and ensure the validity and reliability of the research instruments, a pre-test and pilot survey was conducted by the researcher. This was a small-scale trial to the main survey that tested question planning (Mwituria, 2012). For the purpose of this study, the suitability of the questionnaires was pre-tested by administering to five out of the 13 Micro Finance banks licenced by the CBK using a representative sample identical to but not those to be included in the actual study.

This presented 38% of the population. Kothari and Garg (2014) posit that at least 10% of the sample size consist the pilot test. Cooper and Schindler (2014) aver that such pre-testing checks against ambiguity, clarity or biases in questions, and wording which should be eliminated before administering the questionnaires in the main study.

3.8.1 Reliability of Research Instruments

Reliability is a test to the consistency and stability of the measuring instrument (Sekaran & Bougie, 2016). It also refers to the consistency of a measure of a concept (Bryman, 2012). Reliability is a necessary ingredient for determining the overall validity of a scientific experiment enhances the strength of the results (Mwituria, 2012). A higher coefficient is a prove that the better of measuring instrument is reliable. To test reliability and validity, Cronbach's alpha and factor analysis was performed. In factor analysis, the study employed Principal Component Analysis (PCA) and Exploratory Factor Analysis (EFA).

Cronbach's alpha methodology, which is based on internal consistency, was used to test the reliability of the data. Cronbach's alpha measures the average of measurable items and their correlation. A Cronbach's coefficient alpha can be written as a function of test items and the average inter-correlation among the items (Cronbach, 1951). Cronbach alpha is a general form of the Kunder-Richardson (K-R) 20 formula. The Kuder and Richardson Formula 20 test checks the internal consistency of measurements with dichotomous choices. It is equivalent to performing the split-half methodology on all combinations of questions and is applicable when each question is either right or wrong. A correct question scores 1 and an incorrect

question scores 0. The test statistic is
$$\rho_{KR20} = \frac{k}{k-1}\left(1 - \frac{\sum_{j=1}^{k} p_j q_j}{\sigma^2}\right)$$

Where;

    k = number of questions

PJ = number of people in the sample who answered question j correctly

qj = number of people in the sample who didn't answer question j correctly

$\sigma2$ = variance of the total scores of all the people taking the test = VARP (R1) where R1 = array containing the total scores of all the people taking the test.

Overall scales' reliability of the present situation and the desired situation was tested by Cronbach's alpha, which is above the acceptable level of 0.70 which is acceptable reliability (Bryman & Bell, 2013).

3.8.2 Validity of the Research Instruments

All the questionnaires used in this research study were subjected to a validation process for content validity as well as face validity to ensure that they were up to standard (Cooper & Schindler, 2011). The concept of validity refers to the extent to which the collected data gives a measurement that is considered to be true (Mwituria, 2012). Data is only useful if it essentially measures what it is supposed to be measuring. Validity denotes the accuracy of a measurement or observation (Greener & Martelli, 2015). It refers to the issue of whether an indicator (or a set of indicators) that is devised to gauge a concept really measures that concept (Bryman, 2016). Sekaran and Bougie (2016) contend that validity is evidence that the instrument, technique, or process used to measure a concept does indeed measure the intended concept to analyse the validity of questionnaire. An instrument measure is valid if the instrument measures what it should measure. According to Kothari and Garg (2014), validity referrers to the extent to which differences found with a measuring instrument reflect true differences among those being tested.

The researcher ensured that the research instruments yielded valid data; care was taken in designing research instruments to ensure that they measured and collected the data they were meant to collect. Instruments pre-test analysis was carried out in a similar area of study. Modification was made where necessary to ensure that the desired results were obtained. Expert opinion from other researchers, supervisors and other peers was obtained and included in the instrument. Both open and close ended

structured questionnaire were used to collect data. The researcher discussed the questionnaire with the respondents for clarification.

The questionnaires used in this research study were subjected to a validation process for content validity as well as face validity to ensure that they were up to standard (Cooper & Schindler, 2011).

3.8.3 Factor Analysis

The study employed factor analysis for the computation of factor loading matrix, Principal Component's Analysis (PCA) and commonalities. The objective of factor analysis is to summarize data so that in case of relationships and patterns, they can be easily interpreted and understood. Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) are the two main factor analysis techniques commonly used in research. Confirmatory Factor Analysis (CFA) was used to test the validity and reliability of the constructs by examining the fit of the measurement model (Jöreskog, Olsson & Wallentin, 2016).

CFA attempts to confirm hypotheses and uses path analysis diagrams to represent variables and factors, whereas EFA tries to uncover complex patterns by exploring the dataset and testing predictions (Pearce & Yong, 2013). Exploratory Factor Analysis was applied where components were extracted using principal component analysis. EFA seeks the least number of factors which can account for the common variance (correlation) of a set of variables. Tabachnick and Fidell (2013) validates by arguing that EFA is used when a researcher wants to discover the number of factors influencing variables and to analyze which variables go together. Kothari and Garg (2014) consider a loading of 0.33 to be the minimum absolute value that would allow interpretation of data. This study hence considered loadings of .33 and above for interpretations. A low value for communality less than 0.3 could indicate that the variable does not fit well with the other variables in its component, and is undesirable (Khoi, 2007). Initial communalities are, for correlation analyses, the proportion of variance accounted for in each variable by the rest of the variables.

Extraction communalities are estimates of the variance in each variable accounted for by the factors in the factor solution. Small values indicate that variables do not fit well with the factor solution and should possibly be dropped from the analysis. The Confirmatory Factor Analysis (CFA) was conducted on each construct to assess the extent to which the observed data fits the pre-specified theoretically driven model. The proposed variable items were tested for significant factor loading to ensure that the most appropriate model is selected for analysis (Abidin, 2013).

3.9 Statistical Tests for Assumptions of the Regression Model

The purpose of assumptions tests is to confirm whether the researcher should proceed and fit a regression model to the study or not. Various assumptions of regression model were tested to confirm whether they exist or not. These tests include multicollinearity, normality, autocorrelation, heteroscedasticity, and linearity among others (Johnston, Kelvyn & Manley, 2017). The assumptions and their tests are as indicated:

3.9.1 Test for Multicollinearity – VIF Test

Johnston et al., (2017) maintain that collinearity refers to a single perfect linear relationship between variables and the term multicollinearity refers to more than one such relationship. Multicollinearity exists in situations where there are high levels of inter-correlation among two or more independent variables, in a way that makes it difficult to separate the effect of the independents (Garson, 2012). There is no single measure of multicollinearity since its nature and degree are not known. Multicollinearity results into several problems; increase in the size of standard errors and the coefficient of determination (R^2). In this case, the rule of thumb is to use indicators that provide evidence about existence of multicollinearity. One such measure is the Variance Inflation Factor model (VIF). $V = 1/_{1-}R^2_2$. If VIF is less than 5, this is an indication that multicollinearity is absent.

Multicollinearity can be solved by eliminating one of the highly correlated variables. Olatayo, Fagoyinbo and Adeboye, (2014) avers that multicollinearity in data is assumed to be a sampling artifacts or true reflection of population relationships. It

must be considered when data are analysed with regression analysis because it has several potential detrimental consequence restrictions estimates that waver dramatically with insignificant changes in the sample, parameter estimates with signs that are erroneous in terms of theoretical considerations, theoretically important variables with insignificant coefficients, and the inability to decide the relative importance of multicollinearity variables.

3.9.2 Test for Normality

Tests for normality calculate the probability that the sample is drawn from a normal population. Statistical tests for normality are more precise since actual probabilities are calculated (Johnston et al., 2017). In statistics, normality tests are used to determine if a data set is well-modelled by a normal distribution and to compute how likely it is for a random variable underlying the data set to be normally distributed. More precisely, the tests are a form of model of selection and can be interpreted in several ways, depending on one's interpretations of probability. Many statistical procedures assume a normal distribution and was tested using normality test such as skewness and kurtosis.

Skewness is a measure of symmetry or lack of symmetry. A distribution is symmetric if it looks the same to the left and the right of the centre point. Kurtosis is a measure of whether the data is heavy tailed or light tailed relative to the normal distribution. Data set with high kurtosis tend to have heavy tails or outliers. A standard normal distribution is symmetrical and has a mean of zero (0) and standard deviation of 1. In this study, a K-S was used to correct situations where data assumes a non- normal distribution (Goodhue, Lewis & Thompson, 2012).

3.9.3 Linearity (F-Test)

Linearity tests determine the connection between independent and dependent variable and in good research, this relationship is linear. In this study, linearity test is important because most parts of the General Linear Model (GLM) such as correlation and regression assume the linearity. The Analysis of the Variance (ANOVA) table was used in this study to test for linearity. As rule of thumb, if the F

significance (i.e. P value) for the non-linear element is below the critical value of (<.05), then there is significant non linearity. If the value of significance of output (P value) is (> 0.05), then the relationship between the independent and dependent variables are linearly dependent.

3.9.4 Homoscedasticity - Graphical Exam Tests

Homoscedasticity means the variation in error terms remains the same across all observations (constant). The opposite occurs if the error term(s) do not have a constant variance. In such as case, heteroscedasticity is assumed to be present. Homoscedasticity indicates that the relationship under investigation is the same for the entire range of the dependent variable (Kumar, 2011). Lack of Homoscedasticity is witnessed in higher errors (residuals) for some parts of the investigation as compared to others. Levenes test was adopted for heteroscedasticity. The criteria used for this test was that if p Value ≥ 0.05 we fail to reject the null hypothesis which states that data is homoscedastic. However, in the presence of heteroscedasticity, unbiased coefficient estimates shall be obtained but shall not possess best linear and unbiased estimates (BLUE) property (Saunders, Lewis, & Thornhill, 2012).

3.9.5 Autocorrelation Test

The linear regression assumption outlines that, in some instances, there could be case of autocorrelation among the residuals. Autocorrelation refers to the correlation of a time series with its own past and future values. It is sometimes also called serial correlation which refers to the correlation between members of a series of numbers in time (David, 2016). To test autocorrelation, the researcher used Durbin Watson which ranges from 2 to 4 based on continuous time series obtained from observations recorded continuously over time. If the residual values are not independent from each other, then autocorrelation is considered to have taken place; this means the value of y (x+1) are dependent on the values of y(x) (Cooper & Schindler, 2016).

3.10 Data Analysis and Presentation

Data analysis means examining the coded data critically and making inferences so as to make it clearly understood (Mugenda & Mugenda, 2010). The study pursued the completed research instruments and document analysis recording sheets. Quantitative data collected using questionnaires was analysed by the use of descriptive statistics using Statistical Package for Social Sciences (Version 23.0) because it comprises new formulas for statistics and are presented through percentages, means and frequencies. For secondary data trend analysis will be used to show the changes of organisational performance over time. The information was displayed by use of frequency tables, charts and other figures applicable in data presentation. Questions relating to are usually ordinal in nature and qualitative human behaviour is explained using qualitative research. Stangor (2011) describes qualitative research as descriptive research that is focused on observing and describing events as they occur, with the goal of capturing all of the richness of the everyday behaviour. Inferential statistics included regression and correlation analysis The regression analysis was done as per data fitted from the model:

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

Where:

Y = Performance

X_1 = Tacit-Oriented Knowledge Management Strategy

X_2 = Explicit-Oriented Knowledge Management Strategy

X_3 = Internal-Oriented Knowledge Management

X_4 = External –Oriented Knowledge Management

$\beta_0, \beta_1, \beta_2, \beta_3, \beta_4$ are regressions coefficients to be estimated

ε = Error term,

Regressions analysis with the moderating variables strategic human resource management (Z) on relationship between dependent and independent variables, the statistical model to be used for analysis is as follows (Baron & Kenny, 1986).

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

Where:

Y = Performance

X_1 = Tacit-Oriented Knowledge Management Strategy

X_2 = Explicit-Oriented Knowledge Management Strategy

X_3 = Internal-Oriented Knowledge Management

X_4 = External –Oriented Knowledge Management

X_5 = Human Resource Management Standards

$\beta_0, \beta_1, \beta_2, \beta_3, \beta_4$ are regressions coefficients to be estimated

ε = Error term

$X_i Z$ = Interaction terms between each of the independent variables and moderating variables

$B_i Z$ is the coefficient of X*Z the interaction term between moderating variables and each of the independent variables for $i = 1,2,3,4,$

3.11 Hypothesis Testing

Gitonga (2015) posits that hypothesis testing involves determining whether facts support the hypothesis or they happen to be contrary. T-test and f test have been developed for this purpose and this result to either accepting or rejecting the

hypothesis. This study adopted two tests to fit the regression model. The tests are: F-test and T-test respectively. The F test which is a statistic was used to test the overall regression model, while T- test was used to test whether each of the independent variables of the study have a statistically significant influence or not on the dependent variable of the study. If the values of p are greater than 0.05 for all the independent variables, all the H_0 (null) were rejected and accept H_1(alternative).

The researcher tested the variables at 5% level of significant influence of the independent variable of the study. When probability fails to reach the 5% significance level, the researcher retained the null hypothesis knowing the independent variables (predictors) has no increased effects (i.e. make no difference) in predicting the dependent. 95% Confidence interval means the certainty is 95%. 5% (or 0.05) significance level implies that there is 5% chance of rejecting the null hypothesis when it is true. Hence, the researcher did not accept the null hypothesis which automatically led to acceptance of alternative hypothesis.

Table 3.2: Summary of Test Statistics for the Hypothesis

S/N	Research Hypothesis	Test	Decision
1	Tacit-oriented knowledge management strategy does not have a significant relationship with performance of commercial banks in Kenya.	t-test (p-value)	If p value is < 0.05 reject H_o and conclude that Tacit-Oriented Knowledge Management Strategy has a significant relationship with performance of commercial banks in Kenya.
2	Explicit-Oriented knowledge management strategy does not have a significant relationship with performance of commercial banks in Kenya.	t-test (p-value)	If p value is < 0.05 reject H_o and conclude that Explicit-Oriented Knowledge Management Strategy has a significant relationship with performance of commercial banks in Kenya.
3	Internal-oriented knowledge management strategy does not have a significant relationship with performance of commercial banks in Kenya.	t-test (p-value)	If p value is < 0.05 reject H_o and conclude that internal knowledge-oriented management strategy has a significant relationship with performance of commercial banks in Kenya.
4	External-oriented knowledge management strategy does not have a significant relationship with performance of commercial banks in Kenya.	t-test (p-value)	If p value is < 0.05 reject H_o and conclude that external oriented knowledge management strategy has a significant relationship with performance of commercial banks in Kenya.
5	Strategic human resource management practices do not significantly moderate the relationship between knowledge management strategies and performance of commercial banks in Kenya.	t-test (p-value)	If p value is < 0.05 reject H_o and conclude that strategic human resource management practices significantly moderate the relationship between knowledge management strategy and performance of commercial banks in Kenya

3.12 Operationalization of Variables

This section shows how the variables were operationalized, the scale used in measurement, data collection and techniques of the analysis. All constructs in this study were measured using multiple items taken from past studies and adjusted in accordance with the research context. Theoretical background, knowledge-based theory and relevant literature on knowledge management strategies and performance were reviewed and integrated to develop a model to guide this study.

Table 3.3: Operationalization of Variables

Variable	Indicators	Measurement scale	Instrument for Collection of data	Analysis of data
Tact-Oriented Knowledge Management strategy	Employee Coaching Employee Mentoring Job rotation Exit interviews	Ordinal	Questionnaire	Descriptive &Inferential statistics
Explicit-Oriented Knowledge Management Strategy	Employee Manuals Employee Data Bases Employee Progress Reports Human Resource Information Systems	Ordinal	Questionnaire	Descriptive &Inferential statistics
Internal-Oriented Knowledge Management Strategy	Knowledge creation Knowledge accumulation Knowledge sharing Knowledge culture	Ordinal	Questionnaire	Descriptive &Inferential statistics
External-Oriented Knowledge Management Strategy	Co-Managed HR Innovation Hubs External Communities of Practice Knowledge Process Out Sourcing Boundary Spanners	Ordinal	Questionnaire	Descriptive &Inferential statistics
Strategic Human Resource Management Practices	Skills-based Staffing Employment Security High Compensation Contingent Performance Self-Managed Teams	Ordinal	Questionnaire	Descriptive & Inferential statistics
Performance	Job Satisfaction Employee Productivity (EP) Market Share Profitability.		Questionnaire	Descriptive &Inferential statistics

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSION

4.1 Introduction

This chapter presents the research findings from 296 respondents, implications, discussions and corroborations. Further, the chapter provides an outline of the response rate, data validity, reliability, factor analysis, descriptive and inferential analysis of the variables. The four independent research study variables that are discussed are tacit-oriented, explicit-oriented, internal-oriented, and external-oriented knowledge management strategies. Strategic human resource management practices served as the study's moderating variable. Likewise, the dependent variable of the study was performance of commercial banks. The chapter's main objectives were meant to offer empirical findings, analyze the data, and interpret the findings.

The study depended on the Statistical Package for Social Sciences (SPSS) version 23.0 to evaluate, code, and analyze the data. The themes that mirrored the goals of the research were used to organize and analyze the data. The research data was collected from the field using semi- structured questionnaires. The questionnaires were adequately sorted out and analyzed prior to data analysis. Each specific objective was analyzed separately using descriptive, factor analysis, Pearson correlation and multivariate logistics regression to establish whether independent variables separately influenced the dependent variable. The analysis of each variable of the study was carried out before conducting joint analysis of the variables.

4.2 Response Rate

The study administered 384 questionnaires to a list of randomly selected management and employees in different operational departments and units in the 43 commercial banks in Kenya. Out of the total, 296 questionnaires were accurately filled and returned. The response rate was 77% of the target population. The remaining questionnaires were not returned as the target respondents were unavailable during the research period. Standards provided by authorities such

Babbie (2004) indicate that this response rate was adequate as it compared to a threshold of 50% for analysis and inferences derivations, in regard to the study population. Therefore, the findings provided in this chapter were based on results from 296 respondents out of the target 384 respondents.

Table 4.1: Response Rate

Questionnaire	Frequency	Percent (%)
Returned questionnaires	296	0.77
Unreturned questionnaires	88	0.23
Total	**384**	**100**

4.3 Pilot Study Results

A pilot study was conducted prior to actual survey with the aim of assessing the reliability and validity of the research instrument. The respondents were drawn from 13 Micro Finance Banks licenced by the CBK as at December 2017. A pilot group of 30 respondents was drawn from management and employees in different operational departments and units. The pparticipants included top management were considered to have extensive knowledge of company operations and decision-making abilities across adopted strategies (Marques Junior et al., (2020) while the operations staff execute management decisions in realization of strategy. Banks have a strategic influence in job creation and acceleration of economic growth especially in developing countries such as Kenya (Wiwoho et al., 2020). The choice of micro finance banks was justified on the reasoning that the institutions function under similar regulations and conditions as commercial banks. Further, like banks, micro-finance banks provide important financial intermediation function by converting deposits into productive investments which translate to job and wealth creation.

The main study however, was carried out in commercial banks. Therefore, micro finance institutions were not a fragment of the final sample. By cconducting a pilot study, there was no guarantee of success in the main study, but the exercise increased the likelihood of success. The instrument outlined the adequacy and suitability of the tool for the main study. The study further revealed that the methods chosen by the researcher to administer and collect the questionnaire was found to be cost

ineffective, as well as inadequate for the study. Further, the wording and order of questions was found to be insufficient for the actual study. Data arising from the questionnaires that were duly filled and returned helped to determine the response rate. Identified gaps were filled by developing and detraining adequacy of research instrument. In addition, the researcher assessed the feasibility of a full study survey and took a step to design a research protocol.

Such improvements helped to establish whether the sampling frame and technique were suitable for the main study. Pilot study was a predictor of what resources were required to complete the exercise. Report arising from the study provided critical information on respondent reaction to questions taking into consideration the sensitive nature of the banking industry. The tool was modified in accordance to the recommendations that were received from the respondents. Modification helped to lower the doubt and helped to persuade the respondents that the research was a worthy undertaking. Data collected from the pilot study was subjected to reliability statistics and the results are presented in Table 4.2

4.3.1 Reliability Results

The findings presented in Table 4.2 shows Cronbach's Alpha coefficients for all the variables. The findings showed that tacit-oriented knowledge management strategy indicators had a Cronbach's Alpha of 0.865; explicit-oriented strategy indicators recorded a Cronbach's Alpha of 0.809. Internal-oriented knowledge management strategy indicators had a Cronbach's Alpha of 0.731, while external-oriented knowledge management strategy indicators had a Cronbach's Alpha of 0.875. Strategic human resource management practices recorded a Cronbach's Alpha of 0.764. The findings revealed that all the variables in the study had a Cronbach's Alpha above 0.7. The figure was adopted by the threshold for reliability. These results implied that the research instrument was reliable based on the arguments of Sekaran and Bougie, (2016) and Mwituria, (2012) who avowed that reliability of 0.7 indicated that the instruments is s reliable and qualifies to be used for survey.

Table 4.2: Summary Results of Reliability Statistics

Variable	N of Items	Cronbach's Alpha	Remarks
Tacit-Oriented Knowledge Management Strategy	11	0.865	Reliable
Explicit-Oriented Knowledge Management Strategy	12	0.809	Reliable
Internal-Oriented Knowledge Management Strategy	12	0.731	Reliable
External-Oriented Knowledge Management Strategy	14	0.875	Reliable
Strategic Human Resource Management Practices	10	0.764	Reliable
Performance	13	0.812	Reliable

N=30

4.3.2 Validity Results

Research instrument validity on the other hand was considered to be qualitative and various methods were used to ensure the instrument validity. For content validity, the study ensured that all the indicators used in the questionnaires were informed by empirical and theoretical literature. This implies that the study used indicators that have been used before by other scholars which have been tested and proven. Besides, this technique, the study used test and retest methodology to test for the construct validity. The questionnaires were administered to 5 respondents and re-administered after a time lapse of two weeks and responses compared. The study established consistency in the responses and concluded that instrument was valid for final data collection.

4.3.3 Factor Analysis

The purpose of factor analysis was to summarize data so that relationships and patterns, they could be easily interpreted and understood. Tabachnick and Fidell (2013) validates the statement by arguing that EFA is used when a researcher wants to discover the number of factors influencing variables and to analyze which variables go together. This study considered loadings of 0.33 and above as the threshold for interpretations. A low value for communality less than 0.3 indicated

that the variable does not fit well with the other variables in its component, and is undesirable according to Khoi (2007).

 According to the study findings, the factor loadings for constructs of tacit-oriented strategy were between 0.456 and 0.865 implying the all the indicators had loadings above 0.33 adopted by the study (Table 4.2). The study findings showed that all the tacit-oriented strategy constructs loaded together implying they measured tacit-oriented strategy. The findings of factors analysis show that factor loadings/communalities of internal knowledge management constructs were between 0.574 and 0.828. These finding showed that factor loadings were above the threshold of 0.33 adopted by the study. The findings suggested that each dimension was important in explaining the impact of internal-focused knowledge management strategies among Kenyan commercial banks. The study's findings indicate that all of the indicators included in the study had factor loadings over 0.33 for explicit-oriented knowledge management strategy components that varied from 0.571 to 0.909 (Table 4.4). The study's findings showed that every construct clarified how explicit-oriented knowledge management strategies were used by Kenyan banks to manage knowledge.

The findings of factors analysis show that factor loadings/communalities of external knowledge management constructs were ranging between 0.460 and 0.822. These findings showed that factor loadings were above the threshold of 0.33 adopted by the study. The results therefore implied that all the constructs were significant in explaining external knowledge management strategy among the commercial banks in Kenya. The findings of factor analysis show that factor loadings/communalities of strategic human resource management constructs were ranging between 0.498 and 0.881. These finding showed that factor loadings were above the threshold of 0.33 adopted by the study which therefore implied that all the constructs were significant in explaining mediating effect of strategic human resource management in management of knowledge among the commercial banks in Kenya.

Table 4.3: Factor Analysis for all Variables

Variable	Number of Items	Range of Factor Loadings	Remarks
Tacit -Oriented strategy	12	0.571-0.909	All items were accepted
Explicit-Oriented strategy	11	0.456-0.865	All items were accepted
Internal-oriented knowledge management strategy	12	0.574-0.828	All items were accepted
External-oriented knowledge Strategic	14	0.460-0.822	All items were accepted
Human Resource Management practices	10	0.498-0.881	All items were accepted
Performance	13	0521-0882	All items were accepted

N=30

4.4 Background Information

4.4.1   Background Information on the Respondents

In this section, the study analyzed the background information on the respondents and their respective commercial banks. The aim for this analysis was to understand the respondents background as well their firm to ensure that information was gathered from the right individuals. The study may also intend to establish the responses across people of various backgrounds. The background information analyzed in this section includes gender of respondents, age bracket and highest level of education.

The study analyzed the background of the respondents in the respective banks. The findings show that male respondents were 58.8% while female respondent were 41.2%. Therefore, the ratio of male to female in the study respondents was minimal. This finding implied that the study sample was representative in terms of the gender of the respondents. The findings further implied that commercial banks in Kenya observe the gender rule and offer employment opportunities for individuals from both genders in almost equal proportions. The study findings indicate that

commercial banks observed the Constitutional requirements on employment as stipulated in the (Constitution, 2010). The study disagrees with findings made by Suda (2002) who studied gender disparities in the Kenyan labour market and established that female labour force participation in the modern sector had remained below 30% over the last several years, compared to men who hold a disproportionately larger share of the modern sector jobs. The study may have been biased towards one sector of the economy.

The findings further showed that 25.7% ranged between 41 and 50 years. 51.4% of the respondents were aged between 31 and 40 years, while 23% were aged between 20 and 30 years. These findings established that the banking sector was dominated by young and middle-aged professionals. The banking sector has experienced rapid technological advancement which requires versatility possessed by younger generations which makes them attractive to the industry.

Study findings on the level of education by the respondents indicated that 56.1% of the respondents had undergraduate degree while 43.9% had master's degree as their highest level of education. The study findings established that banking sector in Kenya hired relatively highly educated individuals to fill the various positions. Likewise, banks may have adopted ambitious incentives that support on-the-job and off-the-job training and development programmes in place in addition to continuous professional development. The level of education is highest correlated to competence and skills therefore the need to hire competent staff could be the reasons why commercial banks choose to hire highly educated employees. The study findings support studies by Yarrow (2017) whose study concluded that training and development of employees positively affect employee performance. The questionnaire further included demographics data such as gender, age bracket, job position, educational background, managerial experience and firm size as displayed in Table 4.4

The study findings presented in Table 4.4 show the number of years the respondents had served in the various banks. According to the findings, the average number of years the respondents had worked in the banking sector was 5 years. The respondents

with many years of experience had 15 while the least had served for 1 year. In reference to relevant experience in the sector, the study sample was also representative since it included employees with many years of experience and those with less experience.

Table 4.4: Background Information on the Respondents

Demographics Characteristics	Category	Frequency	Percent (%)
Gender of Respondents	Male	174	58.8
	Female	122	41.2
	Total	**296**	**100**
Age Bracket	20-30	68	23
	31-40	152	51.4
	41-50	76	25.7
	Total	296	100
Highest Level of Education	Undergraduate Degree	166	56.1
	Masters	130	43.9
	Total	**296**	**100**
Experience	Below 3 years	84	28.4
	4-7 years	178	60.1
	8-10	14	4.7
	Above 11	20	6.8
	Total	**296**	**100**

4.4.2 Background Information on the Firm

This section presents the findings on the background information on the commercial banks where the respondents were drawn from. The findings opined that 60.5% of commercial banks were in operation for more than 20 years while 17.2% ranged their operations between 16 and 20 years. According to the results many commercial banks in Kenya had operated for overs 16 years (See Table 4.4). In reference to the size of the bank, 51.7% indicated their staffing ranged between 300 and 999 employees in various branches while 33.4% indicated their banks had less than 300 employees. Banks with between 1000 and 1999 employees were 14.9%. The findings implied that majority of the commercial banks in Kenya have been in business for a long period of time. This is an indication that the sector plays a significant role in

wealth creation and employment opportunities in Kenya. Hence, the sector is a critical player in economic development.

Table 4.5: Background Information on the Firm

Years and Size	Category	Frequency	Percent
Number of years in business	1-5 Years	14	4.7
	6-10 Years	14	4.7
	11-15 Years	38	12.8
	16-20 Years	51	17.2
	20 and above	179	60.5
	Total	296	100
Size of the bank	Less than 300 employees	99	33.4
	300 –999 employees	153	51.7
	1000-1999 employees	44	14.9
	Total	296	100

4.5 Descriptive Statistics

4.5.1 Descriptive Analysis on Tacit-Oriented Knowledge Management Strategy

The study's primary goal was to determine how the tacit-oriented knowledge management strategy affected performance of Kenyan commercial banks. The study aimed to determine if commercial banks encouraged the use of exit interviews, job rotation, coaching, and mentorship in order to measure tacit-oriented knowledge management strategy. The use of tacit-oriented knowledge management strategies by Kenya's commercial banks was investigated using descriptive analysis.

The study findings revealed that 62.8% of the respondents agreed with the statement while 17.2% strongly agreed that coaching plays a significant role in enhancing the relationship between knowledge management and performance in the bank. The statement recorded a mean of 3.84 which confirmed that respondents agreed that their banks adopted use of coaching as a strategy to manage knowledge. The study further sought to establish whether banks encourage employee networks to manage knowledge. The study findings revealed that 57.4% and 16.9% of the sampled respondent agreed and strongly agreed respectively with the statement. In this bank, job rotation helps to improve organizational performance, 45.3% and 32.1% agreed

and strongly agreed with the statement while 1.7% disagreed with the statement. A mean of 4.06 indicated that at least more than 50% of the employees disagreed with the statement. The study finding showed that 68.2% agreed that learning by doing is a common practice in the banks while 6.4% strongly agreed with the statement. Similarly, the study finding revealed that expert knowledge is adequately relied upon in the bank as indicated by 35.8% of the respondents while 46.6% of the respondents strongly agreed with the statement.

The study further sought to establish whether centralization had a negative impact on the management of tacit knowledge. The results showed that 29.4% of the respondents agreed that centralization of knowledge has a negative impact in the management of knowledge which is in people's mind, 19.3% of the respondents strongly agreed with the statement. 4.7% of the respondents were neutral and 6.4% disagreed with the statement. The mean of 4.15was an indicator that in some bank's centralization had a negative impact on the management of tacit knowledge but not in others as indicated by the respondents who disagreed. The finding further showed that 63.5% agreed in their banks encourage mentoring to share their knowledge widely symbiosis approach was adequately employed while 28.4% were neutral on applicability of symbiosis approach. The statement addressing whether banks encourage employees to share past experiences in the company showed that 29.1% of the respondents agreed with the statement while 35.5% of the respondents strongly agreed with the statement.

The results show that 38.9% of the respondents agreed that learning by doing is a common practice in the banks. 18.6% of the respondents strongly agreed with the statement that the use of mind maps was a common practice in the bank while 12.5% disagreed with the statement. Discussion forums were examined to assess whether they offer an excellent channel for knowledge management and the study findings showed that majority of the respondents agreed and strongly agreed as indicated by mean score of 4.04. The mean score of 3.46 implied that respondents expressed different opinions on whether their banks underscore the importance of storing information obtained from exit interviews. These findings were an indicator that some commercial banks highly emphasized storing information obtained from exit

interviews while other did not embrace the practice. The study finally sought to find out whether banks relied on information-systems to reuse explicit- oriented knowledge. The statement recorded a mean score of 3.74, confirming that majority of Kenya's commercial banks implement their information systems by relying on explicit-oriented knowledge. Storytelling was considered to be a widespread practice at banks, according to 30.9% of respondents, who agreed with the statement. 25.7% who strongly agreed with the assumption. In general, the study found that tacit-oriented knowledge management strategy was one of the preferred knowledge management techniques used by commercial banks in Kenya.

The results indicated that banks are encouraged to use exit interviews, job rotation, coaching, and mentorship to manage knowledge. The study findings echoed those of Gitonga (2015) who found that firms in Kenya tacit-oriented knowledge management strategy in different forms including brainstorming, storytelling, peer assist and after-action review. Likewise, Ali (2013) found the tacit-oriented strategy was extensively used in many firms Kenya. The studies argued that this strategy is closely linked with the employee who develops the knowledge and is commonly shared through direct employee-to-employee contacts. Tacit knowledge is considered to be fairly intangible, and this state makes it more challenging to manage and incorporate with processes and systems.

Table 4.6: Descriptive Analysis on Tacit-Oriented Strategy

Statements	SD	D	N	A	SA	Mean	Std Dev
It is acknowledged that coaching plays a significant role in knowledge management in this bank.	2.0%	8.8%	9.1%	62.8%	17.2%	3.84	0.88
This bank encourages employee networks to manage knowledge	1.4%	8.8%	15.5%	57.4%	16.9%	3.80	0.87
In this bank, job rotation helps to improve performance	1.7%	0.0%	20.9%	45.3%	32.1%	4.06	0.83
Learning by doing is a common practice in this bank	2.4%	4.7%	18.2%	68.2%	6.4%	3.72	0.76
Expert knowledge is adequately relied upon in this bank	1.7%	4.7%	11.1%	46.6%	35.8%	4.10	0.90
Centralization of knowledge has a negative impact in the management of knowledge which is in peoples mind	2.0%	23.3%	26.0%	29.4%	19.3%	3.41	1.10
Mentoring encourages employees to share their knowledge widely	2.4%	2.0%	28.4%	63.5%	3.7%	3.64	0.70
This bank encourages employees to share past experiences	2.0%	8.8%	11.8%	54.4%	23.0%	3.88	0.93
Learning by doing is highly appreciated in this bank	4.7%	10.1%	27.7%	38.9%	18.6%	3.56	1.05
Employee Discussion forums offer a suitable channel for knowledge management	1.4%	11.8%	9.1%	37.2%	40.5%	4.04	1.05
This bank recognizes that exit interviews are important sources of knowledge	1.7%	30.1%	16.2%	24.7%	27.4%	3.46	1.23
Story telling is a common practice in this bank	2.0%	12.2%	24.7%	32.1%	29.1%	3.74	1.07
Overall Mean						**3.77**	**0.95**

N=296

4.5.2 Descriptive Statistics Results on Explicit-Oriented Knowledge Management Strategy

The first objective of the study was to assess the influence of explicit-oriented knowledge management strategy on performance in commercial banks in Kenya. The study examined the use of explicit-oriented strategy using four indicators namely; employee manuals and data bases, progress reports, human resource and information systems. The findings presented in Table 4.6 indicate how the respondents responded to the statements that were used to examine the use of explicit-oriented knowledge management strategy in commercial banks in Kenya.

Similarly, the study used percentages, mean and standard deviation to describe the data obtained from the respondents. The mean provided the average response while standard deviation provided the deviation of response from the mean. The higher the standard deviation, the higher the variation of responses across the respondents. The larger the standard deviation indicated high variation of responses across the respondents. A mean of above of 3.5 pointed out that majority of the respondents agreed or strongly agreed with the statement while below a mean of 3.5 indicated a disagreement with the statement.

Likewise, the study sought to assess whether the respondent's knowledge is codified through formal documents and manuals in the banks. The results showed 56.1% of the respondents agreed while, 14.9% strongly agreed with the statement. The statement scored a mean of 3.71 which confirmed that majority of the respondent agreed with the statement. The standard deviation of 0.83 showed that responses varied slightly from the mean score. The study sought to examine whether documentation of knowledge is undertaken systematically as opposed to when the problem has already appeared and the findings showed that 73.6% of the respondents agreed with the statement which recorded a mean score of 3.85. The study findings further revealed that 68.2% of the respondents agreed that employees are encouraged to share innovation work reports to other members of bank at their request.

In addition, the study sought to establish whether commercial banks in Kenya acknowledge that research-based knowledge increases their employees' performance. The study findings showed that 38.5% of the respondents agreed while 36.5% strongly agreed with the statement. The statement recorded a mean response of 3.94 which was a confirmation that commercial banks in Kenya acknowledge that research-based knowledge increases their employees' performance. The use of integrated IT systems and tools support knowledge management tools requirements showed that 49.3% of the respondents agreed with the statement while 38.5% strongly agreed. This was an acknowledgement that banks leveraged on IT systems in undertaking out their roles. Similarly, 51.4% strongly agreed that that information systems support had a positive influence on knowledge management, 36.1% agreed with the statement.

Further, the study sought to understand whether use of information system has a positive effect on knowledge management, the results showed that 51.4% and 36.1% agreed and strongly agreed, the statement had a mean of 4.18 confirming that majority of the respondent agreed. The study sought to find out whether banks use technical documents to other members of the bank at their request, 63.2% agreed with the statement while 8.1% strongly agreed. The mean of 3.64 confirmed that commercial banks in Kenya used technical documents to other members of the bank at their request. The findings as shown by the mean score of 3.88 indicated that respondent agreed that social media platforms offer the management the opportunity to create structured methods of knowledge management.

The study sought to find out whether there has been rising recognition of the significance of employee expertise to the bank performance. The study findings pointed out that 61.5% and 19.6% of the respondents agreed and strongly agreed respectively with the employment of the practice. The study further sought to establish whether there has been rising recognition of the significance of patents for the purpose of improving performance in commercial banks in Kenya, the study established that majority of the respondents agreed as indicated by the mean score of 3.97. The study further sought to find out whether employee data bases are an important source of knowledge in banks, the results showed that 31.8% agreed while

52.4% strongly agreed. The results further showed that majority (50.0% and 37.5%) of the respondent agreed and strongly agreed that the use of standard policies and a procedure is highly appreciated in their banks.

The study findings revealed that respondents agreed with the statement used to measure the use of explicit-oriented knowledge management strategy in the banks. The findings implied that commercial banks in Kenya adopted explicit-oriented knowledge management strategy in their knowledge management to achieve competitive advantage and improve their bank performance. The banks made use of formal documents such as employee manuals and data bases, progress reports, human resource information systems enhance performance. The study finding supports studies by Kalei (2015) who found that firms in Kenya use explicit knowledge management strategies which had a positive significant effect on employees' performance. Similarly, Shehata (2015) found that firms that put in place knowledge management systems (KMSs) increased their employees' performance.

Table 4.7: Descriptive Statistics Results on Explicit-Oriented knowledge Management Strategy

Statements	SD	D	N	A	SA	Mean	Std Dev
Explicit –oriented knowledge is enhanced through formal documents and manuals in this bank	1.4%	12.5%	15.2%	56.1%	14.9%	3.71	0.92
Documentation of employee knowledge is a systematic undertaking in this bank	1.0%	2.4%	14.9%	73.6%	8.1%	3.85	0.63
Employees are encouraged to share innovation work reports to other members of bank at their request	0.7%	8.8%	13.9%	68.2%	8.4%	3.75	0.76
In this bank research-based knowledge increases our employees' performance	1.0%	15.2%	8.8%	38.5%	36.5%	3.94	1.07
Use of integrated IT systems and tools supports knowledge management tools requirements	1.0%	4.1%	7.1%	49.3%	38.5%	4.20	0.82
Information systems support has a positive effect on knowledge management	1.4%	6.4%	4.7%	51.4%	36.1%	4.15	0.88
This bank's use technical documents to other members of the bank at their request	2.0%	11.1%	15.5%	63.2%	8.1%	3.64	0.86
The social media platforms offer the management the opportunity to create structured methods of knowledge management	7.1%	4.1%	24.3%	29.1%	35.5%	3.82	1.17
In this bank, there has been rising recognition of the significance of employee expertise to the bank's employees' performance	1.7%	12.8%	4.4%	61.5%	19.6%	3.84	0.94
There has been rising recognition of the significance of patents for the purpose of improving the bank's employees' performance	2.0%	15.9%	7.1%	33.1%	41.9%	3.97	1.14
Employee data bases are an important source of knowledge in this bank	3.0%	10.5%	2.4%	31.8%	52.4%	4.20	1.10
The use of standard policies and procedures is highly appreciated	0.0%	3.70%	8.8%	50.0%	37.5%	4.21	0.75
Overall						3.96	0.86

N=296

4.5.3 Descriptive Analysis of Internal- Oriented Knowledge Management Strategy

Finding out how internal knowledge management approach affected employee performance in Kenyan commercial banks was the third study goal. Results from the descriptive analysis of the statements used to gauge the impact of internal knowledge management approach are shown in Table 4.8. The goal of the study was to determine whether the bank prioritizes internal knowledge use. 56.4% of respondents agreed, and 10.8% strongly agreed, according to the results.

The statement's mean score of 3.66 revealed that most respondents agreed that their banks place an emphasis on having knowledge stumbling around inside their banks. The results indicate that 42.2% of respondents agreed and 18.2% strongly agreed with the adoption of the practice regarding whether knowledge makes this bank's competencies invisible to its external environment, enabling it to increase staff performance. The study also aimed to determine whether good teamwork is a prerequisite for successful employee performance, and the results showed that 55.1% of respondents agreed with this statement, with 43.6% strongly agreeing. Given that the statement received a mean score above 4, the majority of respondents appeared to agree or strongly agree with it.

The study findings indicated that 48.0% agreed with the statement while 44.3% of the respondents strongly agreed that when key users express and exchange their opinions and ideas organizational performance improves. The study also sought to establish whether knowledge exchange was done through informal activities, such as peer coaching or group tasks. The findings showed that 63.2% and 31.1% of the respondents agreed and strongly agreed respectively. The mean score of 4.29 further demonstrated that commercial banks in Kenya encouraged exchange of knowledge through informal activities such as peer coaching or group tasks.

The study further sought to determine whether management of commercial banks in Kenya encourages informal learning that encourages knowledge management. The research findings showed that 45.9% agreed with the statement while 18.9% of the respondent strongly agreed. The study further sought to establish whether bank's

organizational structure was an important antecedent in creating returns. The findings showed that 80.1% of the respondents agreed with the statement. The finding further revealed that majority (68.6%) of the respondents agreed that organizational structure ought to be designed for flexibility rather than rigidity to facilitate sharing and collaboration within the organization. The study findings showed that respondents agreed that culture demands that management of commercial banks focuses on flexibility and less focus on work rules.

The general implications of these finding was that commercial banks in Kenya adopted internal knowledge management strategies which include key users knowledge management, organization structure, organization culture and incremental innovation. The study findings pointed out that commercial banks are structured in a manner that encourage internal knowledge management and also have developed culture that fosters knowledge management. According to the study respondent's majority of the commercial banks practiced internal knowledge management to enhance their employees' performance. The findings support those of Uzkurt et al. (2013) whose findings revealed that organizational culture and innovation have a direct and positive effect on the employees' performance dimensions.

Table 4.8: Descriptive Analysis on Internal-Oriented Knowledge Management Strategy

Statements	SD	D	N	A	SA	Mean	Std Dev
This bank emphasizes use of knowledge inside the firm	2.7%	8.8%	21.3%	56.4%	0.8%	3.64	0.89
Knowledge makes this bank's competencies invisible to its external environment	1.0%	11.1%	27.4%	42.2%	8.2%	3.66	0.94
Team work is recognized as a source of synergy in this bank	1.4%	0.0%	0.0%	55.1%	3.6%	4.40	0.63
When key users express and exchange their knowledge and skills, performance improves	1.4%	0.0%	6.4%	48.0%	4.3%	4.34	0.72
Knowledge exchange is undertaken through informal activities, such as peer coaching or group tasks	1.7%	0.0%	4.1%	63.2%	1.1%	4.22	0.68
The management encourages informal learning that encourages knowledge management	4.7%	14.9%	15.5%	45.9%	8.9%	3.59	1.10
In this bank, organizational structure is an important antecedent in creating returns	1.0%	3.7%	11.1%	80.1%	4.1%	3.82	0.60
The structure is designed for to create room for flexibility rather than rigidity to facilitate knowledge sharing and collaboration	1.4%	8.8%	8.1%	68.6%	3.2%	3.83	0.81
Our culture demands that the management focuses on flexibility and less focus on work rules	1.0%	4.1%	8.8%	49.3%	6.8%	4.17	0.83
In this bank, employees frequently share their experience with other members of the bank	1.4%	8.8%	13.5%	48.3%	8.0%	3.93	0.94
This bank encourages employees to share manuals, work analysis and methodologies to other members	7.1%	20.3%	9.5%	44.3%	8.9%	3.48	1.21
Our employees frequently share know-how with other members for the purpose of incremental innovation in human resource processes	1.0%	11.1%	17.9%	50.7%	9.3%	3.76	0.92
Overall Mean						**3.90**	**0.86**

N=296

4.5.4 Descriptive Statistics Results on External–Oriented Knowledge Management Strategy

The fourth objective of the study was to examine the influence of external knowledge management on organizational performance in commercial banks in Kenya. The study adopted boundary spanners, co-managed human resource innovation hubs, external communities of practice knowledge process and out sourcing. The study used percentages, mean and standard deviation to descriptively analyse the how respondents responded to the statements adapted to measure external–oriented knowledge management strategy

The study sought to analyse whether in commercial banks, knowledge acquired from external sources was highly appreciated. The study findings showed that 58.1% of the respondents agreed with the statement while 20.9% strongly agreed. The statement recorded a mean of 4.18 which implied that majority of the respondents agreed with the statement while standard deviation of 0.87 indicated that there was a small variation in the responses on this statement. The study findings also revealed that commercial banks in Kenya encouraged R&D collaborations with external parties as indicated by 45.3% of the respondent who agreed with the statement.

The study further, sought to find out whether partnership and collaboration with stakeholders was positively correlated with employees' creation of knowledge among the commercial banks. The study showed that 46.6% of the respondents agreed with the statement while 30.7% strongly agreed. The results implied that collaboration between stakeholders and employees generated knowledge which could affect performance. The study findings showed that 55.1% of the respondents supported maintaining closer collaboration with other organizations for the purpose of knowledge management, and 16.9% of the respondents strongly agreed with the practice.

The study further, sought to establish whether boundary spanners are considered to be useful in managing knowledge. According to the study findings 50.7% and 15.2% of the respondents agreed and strongly agreed with the practice respectively. The statement had a mean response of 3.55 which confirmed that majority of the

respondents agreed with the statement. The study sought to establish whether co-managed innovation hubs provide knowledge which is useful to the organization and the results show that 54.4% of the respondents agreed and 22.3% strongly agreed. Similarly, the findings revealed that 52.0% of the respondents agreed while 12.8% of the respondents strongly agreed with the use of physical resources to conduct experiments or product engineering through imitation.

The study further sought to establish whether external communities of practice collaborate around work-related issues and challenges. The study findings showed that 40.9% and 27.4% of the respondent agreed and strongly agreed with the statement. The study highlighted that skilled technical employees are often outsourced to act as sources of new knowledge on product innovations or improvements. The study also sought to establish whether external connections with organizations such as universities, research institutes, and other organizations has provided important inputs to build up new knowledge. The statement recorded a mean score of 3.58 which implied that some respondents agreed that external connections with organizations such as universities, research institutes, and other organizations provided important inputs to build up new knowledge while others disagreed.

The study further sought to establish whether development of industrial clusters improve the knowledge management capability of the bank. The study findings pointed out that majority of the findings agreed as indicated by the mean score of 3.68. On whether knowledge process outsourcing is a comprehensive enterprise knowledge management tool, the study results showed that 51.0% of the respondent agreed. The study findings further showed that the respondents agreed as shown by the mean score of 3.91 that their bank focuses on overcoming the disadvantages rather than exploit advantages of knowledge acquired from outside. The study finding finally revealed that 66.2% of the respondents agreed that visiting experts that temporarily work full-time in the bank are seen as resources for potential sources of external knowledge.

The findings indicated that commercial banks in Kenya have adopted external–oriented knowledge management strategies to keep them more competitive in the industry. Majority of the respondents agreed that external-oriented knowledge management was significant in achieving sustained performance. The finding further implied that commercial banks external-oriented knowledge management include collaboration with external institutions and use of external experts among other practices and the practice has enabled the banks to harness external knowledge to their advantage. These findings disagreed with findings by González, Sáez, López and Verde (2014) who established that knowledge acquired from general information sources, other firms beyond the core business and patents and databases has no significant effect on employees' performance. The study supports findings by Ferraris, Santoro and Dezi, (2017) who established that using external R&D augmented the magnitude of their external sources of knowledge and hence improved their innovative performance.

Table 4.9: Descriptive Statistics Results of External–Oriented Knowledge Management Strategy

Statements	SD	D	N	A	SA	Mean	Std Dev
Knowledge acquired from external sources is highly valued in this bank	0.3%	8.4%	12.2%	58.1%	20.9%	3.91	0.83
This bank encourages R&D collaborations with external HR consultants for human resource incubation	1.0%	17.9%	15.9%	45.3%	19.9%	3.65	1.02
Human resource business Partnership and collaboration with stakeholders is positively linked with employees' ability to create new knowledge	1.4%	6.4%	14.9%	46.6%	30.7%	3.99	0.91
This bank maintains close collaboration in development of occupational standards with the industry	1.7%	19.3%	11.5%	57.4%	10.1%	3.55	0.97
Boundary Spanners are considered to be useful in managing knowledge	1.7%	13.5%	18.9%	50.7%	15.2%	3.64	0.95
Co- managed innovation HR hubs provide knowledge which is useful to the bank	2.0%	15.5%	5.7%	54.4%	22.3%	3.79	1.02
This bank leverages on human capital resources to conduct experiments for HR innovations	0.0%	14.9%	20.3%	52.0%	12.8%	3.63	0.89
External communities of practice are instrumental in providing mitigation necessary to solve work-related challenges	1.4%	15.2%	15.2%	40.9%	27.4%	3.78	1.05
Skilled and knowledgeable Human resource practitioners and consultants are often outsourced to act as sources of new knowledge	1.4%	18.6%	15.9%	40.9%	23.3%	3.66	1.07
External collaboration and partnerships with institutions such as universities, research institutes, has provided important inputs to build up new knowledge	1.0%	16.9%	27.0%	33.4%	21.6%	3.58	1.04
The development of human resource industrial clusters will improve the knowledge management capability of the bank	1.0%	19.3%	14.2%	41.6%	24.0%	3.68	1.07
HR knowledge process outsourcing is a comprehensive enterprise knowledge management tool	0.3%	9.8%	17.2%	51.0%	21.6%	3.84	0.89
This bank focuses on overcoming the challenges rather than exploit advantages of knowledge acquired from outside	0.7%	11.1%	9.8%	53.4%	25.0%	3.91	0.92
Visiting HR experts and consultants that temporarily work full-time in the bank are potential sources of external knowledge	1.0%	3.0%	8.8%	66.2%	20.9%	4.03	0.71
Overall Mean						**3.76**	**0.95**

N=296

4.5.5 Descriptive Statistics Results for Strategic Human Resource Management Practices

The study also intended to confirm the moderating effect of strategic human resource management practices on the association between Kenyan commercial banks' performance and knowledge management strategies. The study examined the strategic human resource management practices used by commercial banks. Table 4.9 lists the findings of the study. The goal of the study was to determine from the respondents whether strategic sourcing improves the connection between knowledge management plans and commercial banks' performance. The results confirmed that 60.8% of the respondents agreed with the statement while 19.3% of the respondents strongly agree with the statement. The statement recorded a mean score of 4.29 which further implied that respondents agreed that HR strategic sourcing enhances the knowledge management which in turn translates to improved performance. The respondents were further required to explain whether use of comprehensive recruitment and selection process can play a major role in creating a talented pool of human capital necessary for better performance. The finding showed that 22.2% of the respondents agreed with the statement while 22.9% strongly agreed with the statement.

The study revealed that employment security enhances the relationship between the employees and the management for the purpose of maintaining highly committed employees which translate to superior performance. The response was indicated by 20.1% and 22.2% of the respondents who agreed and strongly agreed respectively. The mean of 2.89 further supported the findings that majority of the respondents felt that employment security was not critical in enhancing the relationship between knowledge management and performance of their bank. The study further established that respondents disagreed, as indicated by the mean score of 2.89, that their company recognized that when it provides high compensation contingent performance to the employees, they will increase their productivity and hence improved performance in the bank.

The statement seeking to understand whether high compensation creates an attitude likely to enhance employee's skills and knowledge for facilitating performance showed that 57.1% of the respondents agreed while 36.5% strongly agreed. Similarly, 48.6% and 38.2% of the respondents agreed and strongly agreed that there was willingness to collaborate across organizational units though the engagement of self-managed teams. The study further sought to establish whether team work development that was more oriented toward long-term and team-based achievements encouraged better performance. The results showed that 52.7% and 40.5% of respondents, respectively, agreed and strongly agreed with the statement.

The goal of the study was to determine whether effective job designs improved the connection between knowledge management techniques and bank performance. The majority of respondents agreed with the statement, and some strongly agreed, according to a mean score of 4.09. The percentage of respondents who agreed and strongly agreed with the statement that a healthy work-life balance improved the link between knowledge management strategies and organizational performance was 60.5% and 26.7%, respectively. The study also aimed to determine if talent management improved the link between knowledge management practices and bank performance. The results showed that 62.5% and 33.4% of respondents, respectively, agreed and strongly agreed.

The findings supported the use of strategic human resource management practices by Kenyan commercial banks to improve the relationship between knowledge management and performance of banks. According to the respondents sampled by the study adoption of human resource best practices encourage knowledge creation and sharing, to improve performance. This position was upheld by Farouk et al., (2016) whose results provided new insights on the influence of HRM on organization innovation and performance by testing the role of some mediators in influencing the relationship between HRM and performance. Similarly, Patil and Kant (2012) confirmed that the implementation level of certain strategic HRM practices positively influences firm performance. Patil and Kant (2012) further concluded that strategic HRM practices play an enabling role in harnessing core competencies in knowledge management for better performance.

Table 4.10: Descriptive Statistics Results for Strategic Human Resource Management Practices

Statements	SD	D	N	A	SA	Mean	Std Dev
Strategic sourcing enhances the relationship between knowledge management strategies and performance	2.4%	6.1%	11.5%	60.8%	19.3%	3.89	0.87
Use of strategic recruitment and selection process play a major role in creating a talented pool of people	39.2%	15.7%	0.0%	22.2%	22.9%	2.42	1.95
Employment security enhances the relationship between the employees and the management	21.8%	31.7%	4.1%	20.1%	22.2%	2.89	1.51
This bank provides high compensation contingent performance to the employees	0.7%	0.0%	4.1%	59.8%	35.5%	4.29	0.61
High compensation creates an attitude likely to enhance employees' skills and knowledge for facilitating better employees'	2.4%	0.0%	4.1%	57.1%	36.5%	4.25	0.75
There is willingness to collaborate across organizational units though the engagement of self-managed teams	1.7%	0.0%	11.5%	48.6%	38.2%	4.22	0.78
Team work development that is more oriented toward long-term and team-based achievements will encourage better performance	2.4%	0.0%	4.4%	52.7%	40.5%	4.29	0.76
Adequate job designs enhance the relationship between knowledge management strategies and performance of employees	1.7%	5.7%	4.4%	58.1%	30.1%	4.09	0.85
Appropriate work-life balance enhances the relationship between knowledge management strategies and the bank's performance	1.4%	0.0%	11.5%	60.5%	26.7%	4.11	0.70
Talent management enhances the relationship between knowledge management strategies and performance	1.7%	0.0%	2.4%	62.5%	33.4%	4.26	0.67
Overall Mean						**3.87**	

N=296

4.5.6 Descriptive Statistics Results on Performance of Commercial Banks

The study sought to establish the level of organizational performance in commercial banks. The respondents were required to state whether employees in commercial banks achieve and surpass set target sets. The statement recorded a mean score of 2.71 which implied that the respondents expressed diverse opinions. The findings further implied that in some banks, employees achieved their target while in others the targets were not satisfactorily met. The results further show that 29.4% and 23.5% of the respondents strongly disagreed with the statement that there were low levels of absenteeism in their bank while 18.4% and 16.9% agreed and strongly agreed respectively. The study further sought to find out whether majority of employees in banks are highly motivated and deliver on the duties and responsibilities. The statement recorded a mean of 2.76 which was an indicator that significant proportion of the respondents disagreed with the statement while others strongly disagreed with the statement.

The results indicate that some respondents disagreed with the statement that indicated it was guaranteed that employees are always willing to go an extra mile in ensuring the organisation achieve its goals. The response recorded a mean score of 2.68. Similarly, the statement that the level of job satisfaction among the employees is satisfactory recorded a mean score of 2.69 which indicated that majority of the respondents disagreed with the statement. The statement that addressed the query on whether the bank has built a strong commitment as a top priority in human resource development policy study results show that majority disagreed with the statement which recorded a mean score of 2.38.

The level of agreement with the statement that the banks recorded high rate of employees' turnover recorded a mean of 2.64. employees willingness to co-operate, level of teamwork and whether employees require minimal or no supervision was low as shown by the mean of 2.52. Employees are willing to co-operate for the purpose of enhancing performance recorded a mean of 2.54 while the statement that employees require little or no supervision to deliver on their duties and responsibilities recorded a mean of 2.68. The statement on whether employees

always deliver quality work recorded a mean score of 2.69 which also indicated that a significant proportion of the respondents disagreed with the statement. Employees ability to plan for their work   recorded a mean score of 2.79 while the statement that the bank recorded few customer complaints arising from employees complacent recorded a mean of 2.60. The results show that significant proportion of the respondents disagreed with the statement.

The aggregate mean score on employee's performance was 2.64. The interpretation implied that overall, employees' performance across the various banks was moderate during the period of this study. These findings may have further implied that in some banks, employees   performed beyond the expectation while in others, performance was below average. The findings agreed with a report by PWC (2015) showed that employee retrenchment and restructuring plans in commercial banks in Kenya has been rampant for the last five years. Moreover, long working hours, work related stress among banks employee were a key determinant of reduced performance and high employee turnover in the banks.

Table 4.11: Descriptive Statistics on Performance of Commercial Banks

Statements	SD	D	N	A	SA	Mean	Std Dev
Our bank achieves and surpass set targets	27.2%	25.%	18.4%	8.1%	21.3%	2.71	1.49
This bank records low levels of absenteeism	29.4%	23.%	11.8%	18.%	16.9%	2.70	1.48
Employees in this bank are highly motivated and deliver on the duties and responsibilities	25.7%	23.%	18.4%	14.%	18.4%	2.76	1.45
Employees are willing to take an work extra time in ensuring the bank achieve its goals quickly and efficiently	28.7%	19.%	19.9%	17.%	14.0%	2.68	1.41
The level of job satisfaction among the employees is satisfactory	23.5%	28.%	19.9%	11.%	16.9%	2.69	1.39
This bank has put in place measures that support employee engagement and commitment	34.6%	25.%	17.6%	13.%	9.6%	2.38	1.33
The rate of employees' turnover in this bank is low compared to partners in the industry	25.7%	27.%	16.9%	17.%	12.5%	2.64	1.36
Employees are willing to co-operate with the management and colleagues to beat team targets	28.7%	27.%	18.4%	10.%	14.7%	2.54	1.39
High performance teams are highly encouraged in this bank to achieve high work performance	30.1%	24.%	20.6%	13.%	11.8%	2.52	1.36
Employees work with minimal supervision to deliver on their targets	27.9%	24.%	16.9%	14.%	16.9%	2.68	1.44
Employees are keen to deliver quality work within the shortest time possible	24.3%	27.%	16.9%	16.%	14.7%	2.69	1.39
Employees in this bank have knowledge, skills and abilities necessary to deliver good results	25.0%	24.%	16.9%	14.%	19.1%	2.79	1.46
The number of complaints recorded in this bank is low compared to industry trends due to high standards of tasks	33.1%	21.%	15.4%	13.%	16.9%	2.60	1.48
Aggregate Score						**2.64**	**1.42**

N=296

The study further conducted the trend analysis of the performance indicator used in this study. The study analyzed the trends in profitability using pre-tax profits, return on assets and equity, market share and the trends in number of employees in the banking sector in Kenya. The study findings outlined an increasing trend in pre-tax profits for the banking sector in Kenya between 2010 and 2017. The findings

confirmed that there was a drop in profits after tax between 2014 and 2015. The results further showed that pre-tax profits for commercial banks were unstable from 2014 to 2017. The instability in profits coincided with the period when the interest rate capping was introduced by the Central Bank of Kenya. The study finding showed that interest rate capping impacted negatively on pre-tax profits of commercial banks in Kenya.

The study is in tandem with CBK Annual Supervision Report (2015) that revealed that the banking sector registered declined profitability in 2015 with 5.03 % decline in pre-tax profits during the year which was the first recorded drop since 1999. These findings reflect studies by studies conducted by Ngigi, (2016) which also established the institutions ratings   strongly decreased from 22 in 2014 to 11 in 2015 due to the general drop in asset quality, earnings levels and liquidity positions of several banks.
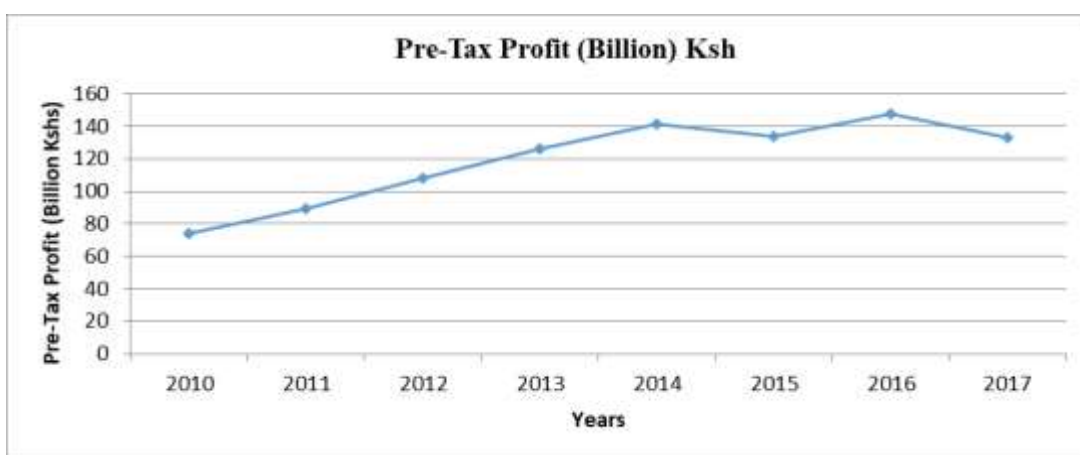
Figure 4.1: Trend Analysis for Pre-Tax Profit

The finding presented in Figure 4.1 shows the average market share of the commercial banks reduced during the period of the study. The finding showed that majority of the commercial lost their market position between 2013 and 2014. The period witnessed the transformation of the devolved government units which attracted uncertainty and at the same time acted as a threat to the future of commercial banks. The developments led to slowed operations in the banks. The findings further revealed that small banks in Kenya continue to eat into the market share of large banks hence reducing the average market share of the large entities.

ICPAK, (2017) report highlighted reduced performance of commercial banks in Kenya. The report further revealed that commercial banks undertook a number of measures to mitigate related challenges among them bank closure; staff reduction; relocating shared function for some international banks and reduced uptake for lines of credit towards supporting SMEs from international development financial institutions.
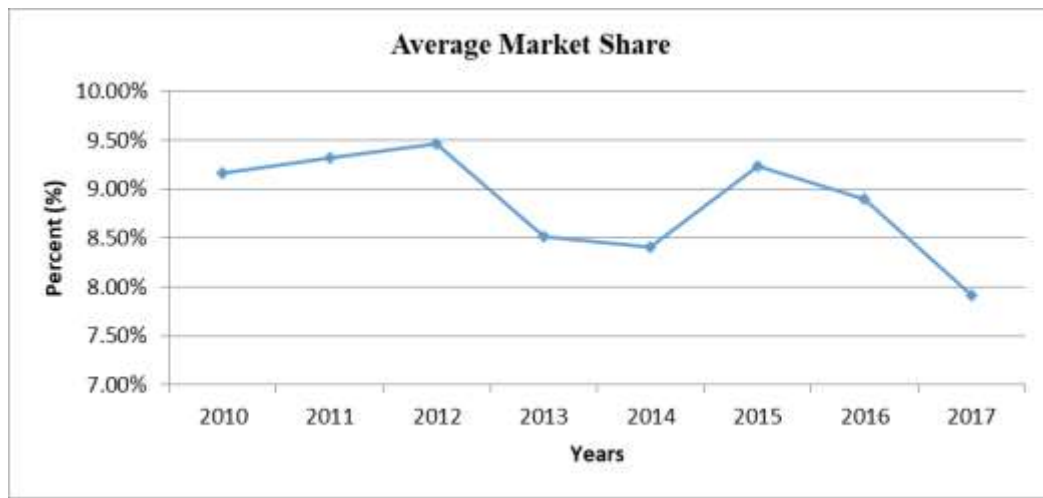
Figure 4.2: Trend Analysis for Average Market Share of Commercial Banks

4.6 Tests of Regression Assumptions

This section presents the diagnostic tests findings on the test of the regression assumptions carried out by the study to ensure the data complied before conducting regression analysis. The objective of conducting the tests was to ensure that the estimates obtained were adequate enough to explain the relationship between variables in addition to ensuring that spurious results were not used to guide the study. Tests for multicollinearity, normality, linearity, homoscedasticity and autocorrelation were carried out to ensure that data complied with the study objectives.

4.6.1 Test of Multicollinearity

Multicollinearity exists in situations where there are high levels of inter-correlation among two or more independent variables, in a way that makes it difficult to separate the effect of the independents (Garson, 2012). Researchers often attempt to reduce high levels of collinearity by eliminating one or more variables from their analysis of a problem. The study adopted a VIF threshold of 5. Garson (2012) confirms that the rule of thumb is VIF > 4.0 when VIF reaches these threshold values. Other scholars such as O'Brien (2007) recommend a more lenient cut off of VIF > 5.0 when high levels of multicollinearity are reported. If VIF is less than 5, this is an indication that multicollinearity is absent while large VIF indicated the presence of multicollinearity. The findings presented in the Table 4.11 indicates that all the variables had VIF of less the 5 which implied that multicollinearity is absent hence all the variables could be used in the regression analysis.

Table 4.12: Test for Multicollinearity

Study Variables	Tolerance	VIF
Explicit-oriented knowledge management strategy	0.379	2.637
Tacit-oriented knowledge management strategy	0.608	1.646
Internal-oriented management strategy	0.565	1.771
External-oriented management strategy	0.371	2.694
SHRMs	0.409	2.447

4.6.2 Test for Normality

The study conducted the test for normality to ensure that data used in the analysis conformed with the assumptions of normal distribution. In this study, Kolmogorov-Simonov(K-S) test was used to test for normal distribution. The results obtained confirmed that the K-S statistic for all the variables was less than the critical value of 1.96 with a P-value of 0.05 which was the level of significance of 0.05. The null hypothesis under this test states that H_o: Data is not significantly different from a normal distribution while alternative hypothesis states that H_A: Data is significantly different from a normal distribution. Since the p=value for all the value was >0.05, the study failed to reject the null hypotheses for performance and concluded that dependent variable performance followed a normal distribution. In this study, the

results opined that knowledge management strategies were normally distributed to performance. The findings indicate that the data was adequate for generalisation and further analysis.

4.6.3 Linearity

In this study, linearity test was important because most parts of the General Linear Model (GLM) such as correlation and regression assume the linearity. The analysis of the variance (ANOVA) table was used in this study to test for linearity. As rule of thumb, if the F significance (i.e. P value) for the non-linear element is below the critical value of (>.05), then there is significant non linearity. If the value of significance of output (P value) is (<0.05), then the relationship between the independent and dependent variables are linearly dependent. The test revealed f=8.714 (p=0.000) that the relationship between the independent and dependent variables are linearly dependent.

Table 4.13: Test for Linearity

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	90.242	5	18.048	8.714	.000b
Residual	600.664	290	2.071		
Total	690.905	295			

a. Dependent Variable: Performance of commercial banks
b. Predictors: (Constant), SHRM practices, Internal-oriented Knowledge Mgmt. Tacit-Oriented Knowledge Management Strategy, Explicit-Oriented Knowledge Management Strategy, External-oriented Knowledge Mgmt strategy.

4.6.4 Homoscedasticity

Heteroscedasticity was tested using Levenes test. The test assumption is that there should be a constant variance across all the observations. The criteria used for this test was that if p Value ≥ 0.05 we fail to reject the null hypothesis which states that data is homoscedastic. However, in the presence of heteroscedasticity, unbiased coefficient estimates shall be obtained but shall not possess best linear and unbiased estimates (BLUE) property (Saunders, Lewis, & Thornhill, 2012). The results for test of homogeneity of variances are presented in Table 4.14. According to the finding presented in Table 4.26, The study failed to reject the null hypothesis for all the

variables since the test–statistic is small with the p-value greater than 0.05 (that is, the data is not heterogeneous in variance), which satisfies the assumptions of regression analysis. These finding are supported by the arguments of Vynck (2017) that ignoring the presence of heteroscedasticity by fitting ordinary least squares regression models, a method that assumes homoscedasticity, results in inefficient regression parameter estimators and a biased and inconsistent covariance matrix estimator.

Table 4.14: Test for Homoscedasticity

Test of Homogeneity of Variances	Levene Statistics	df1	df2	Sig.
Explicit-oriented knowledge management strategy	0.601	2	293	0.825
Tacit-oriented knowledge management strategy	0.438	2	293	0.936
Internal-oriented knowledge management strategy	0.759	2	293	0.68
External-oriented knowledge	1.187	2	293	0.303
SHRM practices	1.825	2	293	0.056
Performance of commercial banks	1.981	2	293	0.182

4.6.5 Test for Autocorrelation

The test was conducted using Durbin-Watson test which uses time series data to test for correlation between variables. Gujarati (2003) observed that Durbin-Watson statistic ranges from 0 to 4. A value near 0 indicates positive autocorrelation while a value close to 4 indicates negative autocorrelation. A value ranging from 1.5 to 2.5 indicates that there is no presence of autocorrelation. The study revealed a Durbin-Watson =1.952 which indicated that there was no autocorrelation.

Table 4.15: Test for Autocorrelation

Model	Durbin-Watson
1	1.952

a Predictors: (Constant), SHRM practices, Internal Knowledge Mgmt., Tacit-Oriented Knowledge Management Strategy, Explicit-Oriented Knowledge Management Strategy, External Knowledge Mgmt.

b Dependent Variable: Performance of commercial banks

4.7 Pearson's Correlation Analysis

According to Kothari (2004) Karl Pearson Correlation Coefficient is the most widely used method of measuring the degree of relationship between two variables. It ranges from -1 to +1. A correlation coefficient of -1 indicates a perfect negative correlation, 0 indicates no correlation while +1 indicates a perfect positive correlation. It tells a researcher the magnitude and direction of the relationship between two variables. The study employed Pearson correlation analysis to test the association between various knowledge management strategies and organizational performance in commercial banks in Kenya.

4.7.1 Correlation Analysis for Explicit-Oriented Knowledge Management Strategy and Performance of Commercial Banks

The performance of commercial banks in Kenya was compared to an explicit-oriented knowledge management strategy using Pearson correlation analysis. According to the findings shown in Table 4.17, there was a significant Pearson connection between explicit-oriented knowledge management strategy and performance ($r = 0.679$, $p=0.000$). The results showed that the performance of commercial banks was to a large extent positively and significantly correlated with explicit-oriented knowledge management strategy.

The results pointed out that commercial banks that embraced or used explicit-oriented knowledge management strategy also demonstrated an improvement in their performance. This study finding concurred with those of Kalei (2015) who found that institutionalization of explicit knowledge had a positive significant effect on performance since all the identified factors were significant predictors of employee as well as organizational performance. The study further mirrored the finding of Mahapa (2013) who also found that system-oriented (explicit-oriented knowledge management strategy) strategy is instrumental to performance of commercial banks. Findings arising this study and previous studies revealed that explicit-oriented knowledge management strategy significantly affected performance of commercial banks.

Table 4.16: Correlation Analysis for Explicit-Oriented Knowledge Management Strategy and Performance of Commercial Banks

Variables		Explicit-Oriented Knowledge Management Strategy	Performance of commercial banks
Explicit-oriented knowledge management strategy	Pearson Correlation	1	.679[**]
	Sig. (2-tailed)		.000
	N	296	296
Performance of commercial banks	Pearson Correlation	.679[**]	1
	Sig. (2-tailed)	.000	
	N	296	296

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

4.7.2 Correlation Analysis for Tacit-oriented Strategy and Performance of Commercial Banks

The study used Pearson correlation analysis to investigate the relationship between tacit-oriented strategy and performance of commercial banks. Tactic-oriented and performance recorded a Pearson correlation value (r) = 0.615, p=0.000, according to the findings shown in Table 4.18. The results showed that tacit-oriented approach has a strong, favorable, and substantial relationship with commercial banks' performance.

The results showed that commercial banks that embraced or used tacit-oriented knowledge management strategy experienced an increase in performance. The study's findings are consistent with findings by of Shahzad (2016), who found out that KM processes significantly influenced organizational innovation and worker performance. Employee performance was found to be significantly impacted by organizational inventiveness.

Table 4.17: Correlation Analysis for Tacit-Oriented Knowledge Management Strategy and Performance of Commercial Banks

Variables		Tacit-oriented Strategy	Performance
Tacit-oriented strategy	Pearson Correlation	1	.615[**]
	Sig. (2-tailed)		.000
	N	296	296
Performance of commercial banks	Pearson Correlation	.615[**]	1
	Sig. (2-tailed)	.000	
	N	296	296

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

4.7.3 Correlation Analysis for Internal –Oriented Knowledge Management Strategy and Performance of Commercial Banks

To further investigate the relationship between internal knowledge management strategy and performance of commercial banks in Kenya, the study used Pearson correlation analysis. According to the findings shown in Table 4.19, there was a significant Pearson correlation between internal knowledge management and performance (r = 0.548, p=0.000).

The results showed a substantial, favourable, and significant relationship between internal knowledge management and performance of commercial banks. These results showed that internal-oriented knowledge management strategy improved performance in Kenya's commercial banks. The study's findings corroborated findings by Dáz and Pérez (2014), who found that internal sources of information had a beneficial impact on performance.

Table 4.18: Correlation Analysis of Internal Knowledge Management Strategy and Performance

Variables		Internal-Oriented Knowledge Mgmt.	Performance
Internal-oriented Knowledge Mgmt strategy.	Pearson Correlation	1	.548*
	Sig. (2-tailed)		0.021
	N	296	296
Performance of commercial banks	Pearson Correlation	.548*	1
	Sig. (2-tailed)	0.021	
	N	296	296

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

4.7.4 Correlation Analysis for External –Oriented Knowledge Management Strategy and Performance of Commercial Banks

The link between external knowledge management strategy and performance of commercial banks in Kenya was investigated using Pearson Correlation Analysis. The external-oriented knowledge management strategy and performance of commercial banks were strongly, positively, and significantly correlated, according to the Pearson Correlation value of r= 0.792 (p=0.000). The findings demonstrated that using external-oriented knowledge management would improve the performance of Kenya's commercial banks.

The results of González, Sáez, López, and Verde (2014), who concluded that knowledge obtained from general information sources outside the company's core business patents and databases have no significant effect on organizational performance, were in contrast to these findings. The findings complement research by Ferraris, Santoro, and Dezi (2017), who established that employing external R&D and boosting the volume of external knowledge sources enhances their innovative organizational performance.

Table 4.19: Correlation Analysis for External Knowledge Management Strategy and Performance of commercial banks

Variables		External-oriented Knowledge Mgmt.	Performance
External-Oriented Knowledge Mgmt.	Pearson Correlation	1	.792**
	Sig. (2-tailed)		0.000
	N	296	296
Performance of commercial banks	Pearson Correlation	.792**	1
	Sig. (2-tailed)	0.000	
	N	296	296

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

4.7.5 Overall Correlation Results

The overall correlation matrix used to examine the relationship between the independent variables and the dependent variable is shown in Table 4.20. The study found a substantial, positive, and significant correlation between the performance of

Kenya's commercial banks and explicit-oriented knowledge management strategy (r=0.679) and external-oriented knowledge management (r=0.792).

The study found a substantial, weak, and positive association (r=0.548) between internal knowledge management and the performance of commercial banks, but a strong, positive, and significant correlation (r=0.615) between tacit-oriented knowledge management strategy and performance. Overall, the results demonstrated a favourable and significant association between knowledge management strategies and the performance of Kenyan commercial banks.

The study finding concur with Kalei (2015) who found that firms in Kenya use explicit knowledge management strategies which had a positive significant effect on employee performance. Similarly, Shehata (2015) found that firms with knowledge management systems (KMSs) in place increased their chances of improving performance. The study findings reflect findings by Shahzad (2016) who established that KM processes was found to have a significant impact on organizational creativity and organizational performance. Organizational creativity was identified as having a strong significant impact on performance. These findings disagreed with findings by González, Sáez, López and Verde (2014) who found that knowledge acquired from general information sources, beyond the firm's core business patents and databases have no significant effect on performance.

Table 4.20: Correlation Matrix

Variable	Correlation	X_1	X_2	X_3	X_4	Z	Y
X_1	Pearson Correlation	1					
X_2	Pearson Correlation	.579**	1				
X_3	Pearson Correlation	.472**	.595**	1			
X_4	Pearson Correlation	.631**	.401**	0.153	1		
Z	Pearson Correlation	.612**	.403**	.174*	.640**	1	
Y	Pearson Correlation	.679**	.615**	.548*	.792**	.550**	1
	Sig. (2-tailed)	0.000	0.000	0.021	0.000	0.000	
	N	296	296	296	296	296	296

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

X_1=Explicit-oriented knowledge management strategy

X_2=Tacit-oriented knowledge management strategy

X_3=Internal-oriented knowledge Mgmt.

X_4=External-oriented knowledge Mgmt.

Z=SHRM practices

Y= Performance of commercial banks

4.8 Univariate Regression Analysis

Regression is the determination of a statistical relationship between two or more variables (Kothari, 2014). In simple regression, there are two variables, one variable (defined as independent) is the cause of the behaviour of another one (defined as dependent variable). The study used both univariate and multivariate to test the effect of independent variables on dependent variable. Univariate regression was used to test the effect of each variable while holding other factors constant. However, the study relied on multivariate regression analysis to test the research hypotheses.

4.8.1 Relationship between Explicit–oriented Knowledge management Strategy and Performance of Banks

In order to determine the impact of an explicit-oriented knowledge management strategy on the performance of commercial banks in Kenya, the study ultimately used univariate regression analysis. R Square = 0.408 revealed that explicit-oriented knowledge management strategy was responsible for 40.8% of the variation in commercial banks' performance.

Table 4.21: Model Summary for Explicit-Oriented Knowledge Management Strategy and Performance

Model Summary	1
R	.679a
R Square	0.408
Adjusted R Square	0.403
Std. Error of the Estimate	0.37935

The ANOVA F-statistics = 92.25 (p=0.000) indicates that the model used to examine the impact of explicit-oriented knowledge management technique was statistically significant. The results showed that among Kenya's commercial banks, explicit-oriented knowledge management strategy was a highly significant predictor of performance.

Table 4.22: ANOVA for Explicit-Oriented Knowledge Management Strategy and Performance

	Sum of Squares	df	Mean Square	F	Sig.
Regression	20.248	1	20.248	92.25	.000b
Residual	50.911	294	0.173		
Total	71.159	295			

a Predictors: (Constant), Mean Explicit-Oriented Knowledge Management Strategy

a Dependent Variable: Performance

A relationship between the explicit-oriented knowledge management strategy and the performance of Kenyan commercial banks was found by regression coefficients of = 0.259, p=0.000. The results showed that an explicit-oriented knowledge management strategy increase of one unit resulted in an increase of 0.259 in the performance of commercial banks. The conclusion proposed that increasing the likelihood of recording better performance was having an explicit-oriented knowledge management strategy in place. The study's findings were corroborated by those of Mahapa (2013) and Kalei (2015), who observed that performance benefits from system-oriented (explicitly-oriented knowledge management plan) strategy.

Table 4.23: Regression Coefficients for Explicit-Oriented Knowledge Management Strategy and Performance

Coefficients	B	Std. Error	Beta	t	Sig.
(Constant)	0.699	0.1		7.023	0.000
Mean Explicit-Oriented Knowledge Management Strategy	0.259	0.027	0.639	9.605	0.000

a Predictors: (Constant), Mean Explicit-Oriented Knowledge Management Strategy

a Dependent Variable: Performance

4.8.2 Influence of Tacit-oriented Knowledge Management Strategy on Performance of Banks

Regression analysis was used in the study to further clarify the connection between tacit-oriented knowledge management approach and commercial bank performance. The results of R Square = 0.236 revealed that tacit-oriented knowledge management

strategy was responsible for 23.6% of the variation in the performance of Kenyan commercial banks.

Table 4.24: Model Summary for Tacit-Oriented Knowledge Management Strategy and Performance of Commercial Banks

Model Summary	1
R	.615a
R Square	0.236
Adjusted R Square	0.23
Std. Error of the Estimate	0.43098

The ANOVA f-statistics = 41.285 (p=0.000) indicate that the model used to test the influence of tacit-oriented knowledge management method was statistically significant (equivalent of in ordinary least squares). The results showed that Kenyan commercial banks' performance was significantly predicted by their tacit-oriented knowledge management strategy.

Table 4.25: ANOVA for Tacit-Oriented Knowledge Management Strategy and Performance of Commercial Banks

ANOVAa	Sum of Squares	df	Mean Square	F	Sig.
Regression	16.801	1	16.801	41.285	.000b
Residual	54.357	294	0.185		
Total	71.159	295			

a Predictors: (Constant), Tacit-Oriented Knowledge Management Strategy
a Dependent Variable: performance

An association between tacit-oriented knowledge management approach and performance in Kenyan commercial banks was found by regression coefficients of β=0.196, p=0.000. These results suggested that a unit increase in tacit knowledge management approach will result in a 0.196 unit increase in performance for commercial banks. The results suggested that using a tacit-oriented knowledge management strategy increased the likelihood of achieving high performance. The study's findings corroborate those of Shahzad (2016), who found that KM processes significantly influenced organizational innovation and performance. The study's findings corroborated those of Gitonga (2015), who reported that organizations that employ tacit-oriented knowledge management strategies in any of their many

manifestations, including coaching, mentoring, job rotation, exit interviews, brainstorming, storytelling, and peer assistance have a positive impact on performance.

Table 4.26: Regression Analysis for Tacit-oriented Knowledge Management Strategy and Performance of Commercial Banks

Coefficients	B	Std. Error	Beta	t	Sig.
(Constant)	1.059	0.092		11.464	0.000
Tacit-Oriented Knowledge Management Strategy	0.196	0.031	0.485	6.425	0.000

a Predictors: (Constant), Tacit-Oriented Knowledge Management Strategy

a Dependent Variable: performance

4.8.3 Influence of Internal-oriented Knowledge Management Strategy on Performance of Banks

The univariate analysis was used to examine how internal-oriented knowledge management strategy affected the performance of Kenyan commercial banks. Internal knowledge management explained 3.9% of the variation in performance of commercial banks in Kenya, when all other factors were kept constant, according to the results of R Square = 0.039.

Table 4.27: Model Summary of Internal-oriented Knowledge Management Strategy and Performance of Commercial Banks

Model Summary	1
R	.548a
R Square	0.039
Adjusted R Square	0.032
Std. Error of the Estimate	0.48318

According to the F-statistics = 16.079 (p=0.000), the model used to examine the impact of internal knowledge management approach was statistically significant. The results showed that among Kenya's commercial banks, internal knowledge management approach was a strong predictor of firm performance.

Table 4.28: ANOVA of Internal-oriented Knowledge Management Strategy and Performance of Commercial Banks

ANOVAa	Sum of Squares	df	Mean Square	F	Sig.
Regression	3.69	1	3.69	16.079	.000b
Residual	67.469	294	0.229		
Total	71.159	295			

a Dependent Variable performance

b Predictors: (Constant), Internal-oriented Knowledge Mgmt strategy

An association between internal-oriented knowledge management strategy and performance of commercial banks in Kenya was found using regression coefficients of =0.089, p=0.021. These results proposed that 0.089 units would be added to performance of commercial banks for every unit improvement in internal-oriented knowledge management strategies. The study supported Dáz and Pérez's (2014) findings that internal sources of information have a beneficial impact on performance.

Table 4.29: Regression Coefficients of Internal-oriented Knowledge Management Strategy and Performance of Commercial Banks

Coefficients	B	Std. Error	Beta	t	Sig.
(Constant)	1.33	0.124		10.73	0.000
Mean Internal-oriented Knowledge Mgmt	0.089	0.038	0.198	2.337	0.021

a Dependent Variable performance

b Predictors: (Constant), Internal Knowledge Mgmt strategy

4.8.4 Influence of External-oriented Knowledge Management Strategy on Performance of Banks

The results of a univariate regression analysis examining the relationship between organizational performance in commercial banks and external-oriented knowledge management strategy are presented in this section. The results showed that the variation in performance in commercial banks was 35.0% (R-Square = 0.35) explained by external knowledge management.

Table 4.30: Model Summary for External-oriented Knowledge Management Strategy and Performance of Commercial Banks

Model Summary	1
R	.792a
R Square	0.35
Adjusted R Square	0.346
Std. Error of the Estimate	0.39727

The f-statistics = 72.303 (p=0.000) indicates that the model used to examine the impact of external knowledge management method was statistically significant. The results showed that external knowledge management strategy was an important predictor of performance in Kenyan commercial banks.

Table 4.31: ANOVA for External- oriented Knowledge Management Strategy and Performance of Commercial Banks

ANOVAa	Sum of Squares	df	Mean Square	F	Sig.
Regression	21.751	1	21.751	129.43	.000b
Residual	49.408	294	0.168		
Total	71.159	295			

a Predictors: (Constant), External Knowledge Mgmt strategy

a Dependent Variable:Performance of commercial banks

External-oriented knowledge management strategy had a significant influence on the performance of commercial banks, according to the regression coefficients of β= 0.51 and p=0.000. The study also showed that an increase of one unit in the adoption of external-oriented knowledge management strategy would lead to an increase of 0.51 units in performance. The study's conclusions showed that external-oriented knowledge management significantly and favorably affected organizational performance. The study corroborates the conclusions made by Ferraris, Santoro, and Dezi (2017), who found that improving performance can be achieved by utilizing external R&D and increasing the volume of external sources of knowledge.

Table 4.32: Regression Coefficients for External-oriented Knowledge Management Strategy and Performance of Commercial Banks

Coefficients	B	Std. Error	Beta	t	Sig.
(Constant)	0.308	0.227		1.354	0.178
External Knowledge Mgmt	0.51	0.06	0.592	8.503	0.000

a Predictors: (Constant), External Knowledge Mgmt. strategy

a Dependent Variable: Performance of commercial banks

4.9 Multivariate Regression Results

The study adopted multivariate regression to test the joint influence of all the independent variables on the dependent variable. The study relied on the findings of the multivariate regression model to test research hypotheses.

Table 4.33: Multivariate Regression Model Summary

Model Summary	1
R	.710a
R Square	0.504
Adjusted R Square	0.489
Std. Error of the Estimate	0.35093

The findings revealed that jointly, knowledge management strategies (explicit-oriented knowledge management strategy, tacit-oriented knowledge management strategy, internal –oriented knowledge management and external-oriented knowledge management) accounted for 50.4% (R-Squared=0.504) of the variation in performance of commercial banks. The results confirmed that knowledge management strategies were significant predictor variables of performance in commercial banks. These finding concur with conclusion made by De Toni and Fornasier (2012) who posit that continuous improvement and maintenance of the knowledge base has led to an expansion of knowledge base, which impacts positively on the overall turnover.

Table 4.34: Multivariate Regression ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	90.242	5	18.048	33.344	.000b
Residual	600.664	290	2.071		
Total	690.905	295			

a. Dependent Variable: Performance of commercial banks

The study employed Analysis of Variance (ANOVA) to test the significance of the regression model used to ascertain the relationship between knowledge management strategies and performance of commercial banks. The model is not statistically significant, therefore since f-computed $=33.344$ with $p=0.000<0.05$, the study

rejected the null hypothesis and concluded that model used to link knowledge management strategies and performance of commercial banks in Kenya was significance meaning it had good fitness (see Table 4.34). At this point, the null hypothesis reveals that that model is not statistically significant and hence, it was rejected.

Table 4.35: Multivariate Regression Coefficients

Coefficients	β	Std. Error	Beta	t	Sig.
(Constant)	7.172	0.616		11.633	0.0000
Explicit-oriented knowledge management strategy	0.276	0.141	0.17	1.955	0.0500
Tacit-oriented strategy	0.469	0.091	0.357	5.169	0.0000
Internal-oriented knowledge Mgmt.	0.346	0.122	0.204	2.824	0.0050
External –oriented knowledge Mgmt.	0.671	0.203	0.245	3.307	0.0010

a. Dependent Variable: Performance of commercial banks

4.9.1 Test of Hypothesis

Prior to testing of the hypotheses, the researcher analyzed data to find out whether there was missing data, outliers, statistical assumptions and common method bias. The following section presents the results on the test of research hypotheses. The research hypotheses were tested at the level of significance of 0.05. The study was guided by null hypotheses, $p<0.05$ implied the study failed to reject the research hypotheses while $p>0.05$ led to rejection of research hypothesis.

Table 4.36: Test for Hypotheses

Hypotheses		β	P-value (0.05)	Decision
1.	$H_{01} = 0$ $H_{A1} \neq 0$	$\beta_1 = 0.469,$	p=0.000	Reject H_{01}
		$\beta_2 = 0.276,$	p=0.050	Reject H_{02}
2.	$H_{02} = 0$ $H_{A2} \neq 0$			
		$\beta_3 = 0.346$	p=0.005	Reject H_{03}
3.	$H_{03} = 0$ $H_{A3} \neq 0$			
		$\beta_4 = 0.671$	p=0.001	Reject H_{04}
4.	$H_{04} = 0$ $H_{A4} \neq 0$			
				Reject $H_{05\ (X1)}$
5.	$H_{05} = 0$ $H_{A5} \neq 0$	$\beta_5 = 0.401,$	p=0.000	
		$\beta_6 = 0.319,$	p=0.016	Reject $H_{05\ (X2)}$
				Fail to Reject $\quad H_{05\ (X3)}$
		$\beta_7 = 0.094,$	p=0.376	
				Reject $H_{05\ (X4)}$
		$\beta_8 = 0.523,$	p=0.000	

4.9.2 H_{01}: Tacit Oriented-Knowledge Management Strategy does not have a Significant Relationship on Performance of Commercial Banks in Kenya.

The study's first research hypothesis was to examine whether tacit-oriented knowledge management strategy had a substantial relationship with performance of Kenyan commercial banks. Tactic-oriented knowledge management strategy and performance were found to be positively and significantly correlated, according to regression coefficients of $\beta=0.469$, p=0.000. The results showed that commercial banks with tacit-oriented knowledge management strategy in place were more likely to record better performance as opposed to banks with no such strategies in place. The study thus disapproved the null hypothesis that there is no association between performance of Kenyan commercial banks and tacit-oriented knowledge management strategy.

The findings implied that the use of tacit-oriented knowledge management strategy improved the odds of recording better performance. The study findings reflect

findings by Shahzad (2016) who established that KM processes were found to have a significant impact on creativity for better performance. The study's findings corroborated those of Gitonga (2015), who observed that organizations that used tacit-oriented knowledge management strategies including brainstorming, storytelling, peer assistance, and after-action reviews had improved performance.

4.9.3 H_{02}: Explicit- Oriented Knowledge Management Strategy Does not have a Significant Relationship with Performance of Commercial Banks.

The study examined whether the performance of Kenya's commercial banks was significantly impacted by an explicit-oriented knowledge management strategy. The explicit-oriented knowledge management strategy's multivariate regression coefficient was at ($\beta=0.276$, p=0.050, 0.05), which indicated a statistically significant correlation between the strategy's performance and that of Kenya's commercial banks (see table 4.35). At this point, the study disapproved the null hypothesis that the performance of Kenya's commercial banks is not significantly influenced by an explicit-oriented knowledge management strategy.

The results demonstrated that commercial banks with explicit-oriented knowledge management strategies performed were meaningful in influencing the relationship with higher organizational performance than those without such strategies in place. According to the findings, commercial banks that have explicit-oriented knowledge management approach strategies have a better likelihood of achieving better performance than those that do not. The study's findings also aligned with those of Mahapa (2013) and Kalei (2015), who discovered that system-oriented (Explicit-Oriented Knowledge Management Strategy) strategy is essential to performance.

4.9.4 H_{03}: Internal-Oriented Knowledge Management Strategy does not have a Significant Relationship with Performance of Commercial Banks.

To determine if internal knowledge management significantly affects the performance of commercial banks, the third research hypothesis of the study was tested. Internal-oriented knowledge management and performance of commercial banks in Kenya have a positive and significant link in the relationship, according to

regression coefficients of β=0.346, p=0.005. Further research showed that compared to commercial banks without internal knowledge management, those that implemented the strategy were more likely to achieve better performance. As a result, the study disproved the null hypothesis that internal-oriented knowledge management strategy has no bearing on performance of commercial banks. The study supported Dáz and Pérez's (2014) findings, which showed that internal sources of knowledge had a favorable impact on commercial banks' performance.

4.9.5 H_{04}: External-Oriented Knowledge Management Strategy does not have a Significant Relationship with Performance of Commercial Banks.

Testing whether external knowledge management significantly affects the performance of commercial banks was the fourth research hypothesis of the study. External knowledge management appeared to have a positive and significant impact on the performance of commercial banks, according to the regression coefficients of β=0.671, p=0.001 0.05. The study also showed that commercial banks would perform better if they used external-oriented knowledge management strategy at a higher rate. The results showed that compared to banks without external knowledge management, commercial banks with external knowledge management were more likely to achieve better performance.

As a result, the study disproved the null hypothesis that there is no relationship between Kenyan commercial banks' performance and their external-oriented knowledge management strategy. The study's conclusions showed that external knowledge management significantly and favourably affected performance. According to Ferraris, Santoro, and Dezi's (2017) research, external R&D increased the importance of external sources of knowledge for creative performance. The study validates their conclusions.

4.9.6 H$_{05}$: Strategic Human Resource Management Practices does not moderate the Relationship Between Knowledge Management Strategies and Performance of Commercial Banks in Kenya

The study's final premise was to examine the assumption that strategic human resource management practices negatively influence the impact of knowledge management strategies on commercial banks' performance. The association between knowledge management and performance of the commercial banks was examined using a moderated multivariate regression model to determine whether strategic human resource practices had any moderating effect. The study computed the interaction variables (X_1*Z, X_2*Z, X_3*Z & X_4*Z) using the product of independent variables and the moderation variable. If the interaction variables are significant, the study concluded the significance of the moderating effect of strategic human resource management practices on performance.

These findings presented in Table 4.29 demonstrated that strategic human resource management practices significantly moderated the relationship between Explicit-oriented knowledge management strategy (β =0.108, p=0.000), tacit-oriented knowledge management strategy (β =0.069, p=0.046), external knowledge management (β =0.124, p=0.000) and performance of commercial banks in Kenya. The moderating effect of strategic human resource management practices on the relationship between internal-oriented knowledge management strategy and performance of commercial banks was also found to be significant (β =0.08, p=0.006).

The study failed to reject H$_{05}$: strategic human resource management practices negatively moderate the influence of tacit-oriented knowledge management strategy, explicit-oriented knowledge management strategy, internal-oriented knowledge management strategies and external-oriented knowledge management strategies on performance of commercial banks in Kenya. These finding concur with those of Patil and Kant (2012) who also confirmed that the implementation level of certain strategic HR practices positively influences firm organizational performance. Patil

and Kant (2012) further concluded that SHRM practices play an important role in harnessing core competencies and performance.

Table 4.37: Test for Moderating Effect of SHRM Practices

	Unstandardized Coefficients(B)	Std. Error	Standardized Coefficients (Beta)	t	Sig.
(Constant)	7.172	0.616		11.633	0.000
Explicit-oriented knowledge management strategy	0.276	0.141	0.17	1.955	0.050
Tacit-oriented Strategy	0.469	0.091	0.357	5.169	0.000
Internal-oriented Knowledge Mgmt.	0.346	0.122	0.204	2.824	0.005
External –oriented Knowledge Mgmt.	0.671	0.203	0.245	3.307	0.001
X1*Z	0.108	0.021	0.38	5.07	0.000
X2*Z	0.069	0.034	0.206	2.006	0.046
X3*Z	0.08	0.029	0.222	2.794	0.006
X4*Z	0.124	0.043	0.256	2.897	0.004
Model Summary					
R	0.747				
R Square	0.558				
Adjusted R Square	0.546				
F	9.94				
Sig.	.000b				

The summary of the moderating effect presented in table indicates that there was a significant change in R-square with inclusion of the moderating effect from 0.504 to 0.558 which implied that SHRM practices enhanced the relationship between KM strategies and performance of commercial banks in Kenya.

Table 4.38: Summary of Test for Moderation Effect of SHRM Practices

Proportion of the variance	Before Moderation	After moderation	Change	Conclusion
R-squared	0.504	0.558	0.054	Strategic HRM practices positively enhanced relationships between Knowledge management strategies and performance of commercial banks in Kenya

4.10 Optimal Model

This section presents the model optimization as well as the revised conceptual framework. The revised conceptual framework consisted of the variables that had significant influence on performance. The study findings highlighted that external oriented KM strategy ($\beta4$=0.671) was the highest predictor of performance followed by explicit-oriented KM strategy ($\beta1$=0.276). Tacit-oriented KM strategy ($\beta2$=0.469) recorded a moderate effect while internal-oriented KM strategy ($\beta3$=0.346) was the least predictor of performance. These findings pointed out that banks that adopted external-oriented KM strategies have the highest chances of recording better performance. The study recommends that banks should have all the strategies in place to leverage on the strength of each strategy. The optimal model outlines the variables in accordance with the strength of the influence on performance. Therefore, the proposed model:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ (1)$$

Model (1) was condensed to:

$$Y = 7.172 + 0.276 X_1 + 0.469 X_2 + 0.346 X_3 + 0.671 X_4 + \varepsilon \ldots\ldots\ldots\ldots\ldots\ (2)$$

Where;

Y = Performance

X_1 = Explicit-oriented knowledge management strategy

X_2 = Tacit- oriented knowledge management strategy

X_3 = Internal –oriented knowledge management strategy

X_4 = External –oriented knowledge management strategy

ε = Error term

The optimal model shows that external-oriented knowledge management strategy recorded the highest influence on performance. This influence was followed by explicit-oriented knowledge management strategy. Tacit-oriented knowledge management strategy and internal-oriented knowledge management strategy had the least influence on performance. Results of the new conceptual framework are presented in Figure 4.3

External-Oriented Knowledge Management Strategy
- Co-Managed HR Innovation Hubs
- External Communities of Practice
- Knowledge Process Out Sourcing
- Boundary Spanners

Explicit-Oriented Knowledge Management Strategy
- Manuals
- Data Bases
- Progress Reports
- Human Resource Information Systems

Tact-Oriented Knowledge Management Strategy
- Coaching
- Mentoring
- Job rotation
- Exit interviews

Internal-Oriented Knowledge Management Strategy
- Knowledge creation
- Knowledge accumulation
- Knowledge sharing
- Knowledge culture

Independent Variables

Performance of commercial banks
- Job Satisfaction
- Employee Productivity (EP)
- Market Share
- profitability

Dependent Variable

Strategic Human Resource Management Practices
- Skills-based Staffing
- Employment Security
- High Compensation Contingent Performance
- Self-Managed Teams

Moderating Variable

Figure 4.3: Revised Conceptual Framework

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter covered summary of the major findings based on the research objectives. The summary presented in this section was based on the findings of joint relationship between independent variables and dependent variable. The chapter further comprised of conclusion made based on research findings. The chapter finally presented the recommendations made for improvement of management of commercial banks and some policy formulation both by regulator and board of the commercial banks to support improved performance.

5.2 Summary of Findings

The major goal of the study was to determine how knowledge management strategies and performance in all Kenyan commercial banks interacted, with the influence of effective human resource practices playing a moderating role. The goal of the study was to determine the relationship between tacit-oriented, explicit-oriented, internal-oriented and external-oriented knowledge management strategy, on the performance of Kenyan commercial banks. Likewise, the study sought to investigate the moderating influence of strategic human resource management practices on the association between knowledge management strategies and performance of commercial banks. The 43 commercial banks in Kenya were the subject of a descriptive study. The study used multivariate binary logistic regression modelling to assess the research hypotheses.

5.2.1 Tacit–Oriented Knowledge Management Strategy

The study objective was to understand how Kenyan commercial banks' performance was impacted by tacit-oriented knowledge management strategy. The study found that the strategy was one of the preferred strategic knowledge management practices implemented by commercial banks in Kenya. The results averred that banks used exit interviews, employment rotation, coaching, and mentoring as a strategy to manage

tacit knowledge. A positive and significant correlation between tacit-oriented knowledge management approach and performance of commercial banks in Kenya was found using multivariate regression analysis. The study established that commercial banks that employed tacit-oriented knowledge management strategy in place had better performance as opposed to those without such a strategy in place.

5.2.2 Explicit-Oriented Knowledge Management Strategy

The study's second goal was to determine how explicit-oriented knowledge management strategy influenced performance in Kenyan commercial banks. The research findings showed that banks employed employee manuals, data bases, progress reports, and human resource information systems in the management of explicit knowledge. Descriptive analysis was used in the study to determine whether Kenyan commercial banks put explicit-oriented knowledge management strategies in place. The study used correlation and regression analysis to determine whether the strategy had an impact on performance. The results pointed out that there was a higher likelihood of recording better performance for commercial banks with explicit-oriented knowledge management strategies than for banks without such strategies in place. The results pointed out that commercial banks which leveraged on employee manuals, data bases, progress reports, and human resource information systems have an added advantage over banks without such strategies   in place.

5.2.3 Internal –Oriented Knowledge Management Strategy

The third goal of the study was to determine the influence of internal-oriented knowledge management strategy on performance of commercial banks. The study employed descriptive analysis, correlation, and multivariate regression analysis to examine the impact of the strategy on Kenyan commercial banks' performance. The study established a strong and significant correlation between commercial banks' performance and the strategy. The study highlighted that commercial banks were more likely to record better performance following the implementation of strategies such as knowledge generation, accumulation, sharing, and knowledge culture.

5.2.4 External-Oriented Knowledge Management Strategy

Examining the impact of an externally focused knowledge management strategy on Kenya's commercial banks' performance was the study's fourth goal. The regression analysis revealed that the performance of commercial banks was significantly and positively impacted by an external-oriented knowledge management strategy. The study found out that increasing the strategy's adoption would lead to better and enhanced performance. The results showed that commercial banks that used co-managed HR innovation hubs, external communities of practice, and knowledge process outsourcing were more likely to achieve greater performance than banks that did not implement such strategies in place.

5.2.5 Strategic Human Resource Management Practices

The study's final hypothesis was to investigate if strategic human resource management practices favourably modify the impact of knowledge management strategies on the effectiveness of commercial banks in Kenya. The relationship between internal-oriented knowledge management strategy and performance of commercial banks was found to be insignificant, while the influence of tacit-oriented and explicit-oriented, internal and external-oriented knowledge management strategies was positively moderated by strategic human resource management practices such as skills-based staffing, employment security, high compensation contingent performance, and self-managed teams.

5.3 Conclusion

This study sought to determine the influence of knowledge management strategies influenced performance of Kenya's commercial banks in Kenya. After the previously mentioned discussion, it is apparent that there exists a strong positive relationship between knowledge management strategies and performance. Additionally, strategic managing human management practices are a key moderator of the relationship. Therefore, the findings add to the body of knowledge by offering an empirical proof that strategic human resource management practices have a significant moderating role in the connection. The practical implications of this study are that owner-

businesses/managers of banks are required to pay keen interest in translating their knowledge resources to improve performance. Moreover, KM strategies play a significant role in enhancing   performance in banks. The novelty of the presented findings can be summed up by stating that this research delivered empirical proof that KMS has a strong relationship with   performance.

Tacit knowledge is personal, and this study upheld how this knowledge can be harnessed through coaching, mentoring, job rotation and exit interviews in the improvement of job satisfaction, employee's productivity, and overall performance of the banks. Through the strategy, employees have better chances to gain insights that they initially lacked and which make them more enlightened about the best practices, innovation and various approaches that can be used to solve the day-to-day work-related challenges. Practical implications based on the presented findings are clear. This knowledge is novel and thus beneficial for organizations focused on improved performance. Therefore, the organizational effort needed to support tacit-oriented knowledge management strategy is worth investing in. The study concluded that explicit–oriented strategy is essential in generation of unique database of knowledge which an organisation can employ to achieve superior   performance and a competitive edge. Explicit–oriented knowledge management strategy was found out to be a key strategy in information extraction and storage of knowledge for improved efficiency, effectiveness and productivity. Employee's manuals, databases, progress reports and human resource information systems were found to have a significant relationship with performance.

The study concluded that performance of commercial banks significantly depends on the ability of a bank to harness internal-oriented knowledge and capitalize on such knowledge for enhanced performance. Individuals in the various banks possess various type of knowledge which can be adopted and used within the organization for better performance. Therefore, knowledge developed and enhanced within the firm, through creation, accumulation, sharing and culture was found to have a significant relationship with performance. The study further concludes that performance of commercial bank to a large extent depends on the ability of a bank to gain from external KM strategies. As the organisation mature, inertia begin to take

effects, learning reduces and among the strategies to improve performance is to capitalize on boundary spanners, co-managed human resource innovation hubs, external communities of practice knowledge process and knowledge out sourcing to gain new insights which in the long run helps in improving performance.

The study finally established that strategic human resource management practices provided the necessary environment that is required to enhance the relationship between   knowledge management and performance. The study therefore, concludes that cohesive strategic human resource management practices offer an organisation the opportunity to harness into knowledge management strategies for better performance.

5.4 Recommendations of the Study

The section presents the recommendations made for improvement of management in commercial banks and policy formulation both by the regulator and boards of the commercial banks to support improved performance. A new, exciting direction for further studies on KM naturally emerges based on the presented findings. That is, it is particularly important to identify KM strategies that influence performance. The study recommends that commercial banks or organizations seek to have in place knowledge KM strategies such as tacit-oriented, explicit- oriented, internal-oriented as well as external-oriented KM strategy.

The study recommends that management of commercial banks encourage interpersonal meetings between their employees and other external industry experts to enhance external knowledge management. Co-managed human resource management innovation hubs, external communities of practice knowledge process and out sourcing are among the avenues that banks can employ to gain new insights that can be used to improve performance. According to the study, there is a strong and positive correlation between strategic human resource management practices and potential to improve performance in banks. The findings proposes   that banks implement self-managed teams, high compensation contingent on success, employment security, and skills-based human capital to improve performance.

The report urges management of commercial banks or organizations seeking to put in place knowledge management strategies to adopt explicit-oriented strategy. Explicit-oriented KM strategy enables organizations to store necessary knowledge for future consumption by employees in the organizations in case where generator of this knowledge is not available any more. Stored information can be extracted by any interested person for a variety of use including enhancement of performance.

The study recommends that management of commercial banks should prioritize internal knowledge management strategies that will enable harnessing of internal knowledge and capitalizing on such knowledge to enhance performance. The management should encourage an enabling culture where employees meet and brainstorm on different ways and strategies of conducting business. Informal interaction sessions should be put in place to enable employees feel free to share their views, insights and knowledge based on past experiences. The study further recommends management of commercial banks in Kenya should ensure that employees attend conferences, seminars and other informal gathering of industry players on a regular basis to enhance interpersonal exchange of experiences and insights to enhance employees' productivity and satisfaction. The Board of Directors of the commercial banks should also formulate relevant policies to harness knowledge management strategies.

The study established that strategic human resource management negatively moderates the influence of explicit-oriented knowledge management strategy, tacit-oriented knowledge management strategy, internal knowledge management strategies and external knowledge management strategies on performance of commercial banks in Kenya. The study therefore recommends that strategic human resources department within commercial banks in Kenya should adopt SHRM practices such skills-based staffing, employment security, high compensation, contingent performance and self-managed teams to enhance the level of knowledge management practices that enhance performance.

Findings arising from of this study are helpful to Government ministries and agencies, to formulate policies and support programmes which are necessary to enhance performance of commercial banks in Kenya. Likewise, the Central Bank of Kenya may rely on such findings to offer recommendation to the Ministry of Labour to recognize the identified strategies in the development of occupational standards. Such standards contain an occupational profile, to prescribe the knowledge, skills and behaviours necessary to develop curriculum to guide the human resource profession in Kenya. Further, the recommendations are critical to the Institute of Human Resource Management, and the Human Resource Management Professionals Examinations Board in policy formulation. The institutions were established under the HRMP Act (2012) to govern the practice of HR profession in Kenya, enhance competencies and capabilities of HR practices, develop curricula, manage examinations and certify HRM professionals respectively.

The Examinations Board may consider specifying knowledge management among the core units of competencies in Certified Human Resource Professionals programme. Similar, the examinations board may consider listing the topic in the short certification courses. Likewise, this study provides critical information to banks in Kenya, academic researchers working in higher learning institutions and other researchers involved in banking sector. As this study used a cross-sectional research design combined with a qualitative research approach, future researchers may consider employing a longitudinal method to compare any variations in the results. Alternatively, quantitative studies could be conducted to supplement the qualitative findings. Through methodological triangulation, it may be possible to gain a better understanding of the moderating effect of strategic human resource management practices on performance. Lastly, this study focused on commercial banks, other studies might include other types of business entities and other sectors.

5.5 Contribution to Theories and Body of Knowledge

The findings in this study point out some valuable theoretical and practical implications. The study contributes to scholarly knowledge on knowledge management strategies research in several ways. First, contributions are made

regarding the understanding of the relationship between knowledge management strategies and performance compared to more general reviews and bibliometric analyses that focus on the entire field of knowledge management. The study further recommends the attention to research that addresses issues of strategy in management of human resources. This study further expanded the utility of Knowledge-Based Theory, Nonaka and Takeuchi Knowledge Spiral Model, Self-Efficacy Theory, Open Innovation Model, Social Exchange Theory, Expectancy Theory and Dynamic Capabilities Theory to explain the relationship between knowledge management strategies and performance of commercial Banks in Kenya. Therefore, further studies in this field can be guided by similar theories in developing the variables. The study empirically established that knowledge management strategies are positively and significantly related to performance of commercial banks.

5.6 Areas for Further Research

The findings of this study are expected to persuade other researchers to carry on this research and develop new insights that can be of significant benefit to commercial banks. Although this study has made significant contributions in theory and practice, it was characterized by a number of limitations, and further improvement is prerequisite in future research. The recommendations in this study are unique to the banking industry, where if the research was performed in other industries, there is a possibility for different results. The sample size was limited to 296 respondents. Therefore, these variables may be further tested using alternative data. Recommendations for further research are based on the gaps which the research study failed to address. The study focused on four specific knowledge management strategies, which include tacit-oriented knowledge management strategy, explicit-oriented knowledge management strategy, internal and external-oriented knowledge management strategies. The findings revealed that jointly, knowledge management strategies (accounted for 62.6% of the variation in performance of commercial banks. Further studies should focus on other factors that account for 37.4% of the variation. Research studies in the future can be conducted on commercial banks in Kenya using other constructs of strategic human resource management practices. A longitudinal

survey may be convenient in determining the relationships over a period of time so as to support theoretical opinions and find out the extent to which the findings can be generalized to other institutions in Kenya.

Furthermore, the moderating variable has a partially moderating influence on the relationship between knowledge management strategies and performance, according to the examination of the moderating effect of strategic human resource management practices. This finding suggests that there are some untried avenues and influencing elements that will be investigated in subsequent studies. Researchers could undertake research to compare the effects of knowledge management strategies on Kenyan commercial banks' performance using other moderating variables. This study therefore, makes a unique contribution to the existing body of knowledge. However, important contextual factors such as environmental uncertainty and dynamic organizational cultures are not considered in this study.

 It is recommended that future studies explore the influence of these contextual factors. This research study focused on 384 respondents drawn from top management staff, middle level management staff and operative staff in different departments and units in the 43 commercial banks in Kenya. Future research study can consider involving strategies within the banks with an intention of coming up with a more diversified outlook of the concept. Comprehensive literature reviews, viable methodological tools, key findings, recommendations, limitations and future study directives will   be useful for future researchers. Furthermore, the study will be useful for practitioners in similar contexts.

REFERENCES

Abbas, A., & Riaz, M. T. (2018). The effect of internal marketing dimensions on organizational commitment of employees: an investigation among private banks. *European Online Journal of Natural and Social Sciences*, *1*, 147-165.

Abebe, J. O. (2016). How Organizational Culture as an Enabler of Knowledge Management Systems Influence Sustainable Competitive amongst Humanitarian Agencies in Kenya. *Journal of Information and Knowledge Management*. *1*(1), 1-18.

Abidin, U. F. U. Z. (2013). *Measuring food safety culture: Insights from onsite foodservice operations* (Doctoral dissertation, Iowa State University).

Abouzeedan, A. & Hedner, T. (2012). Organization structure theories and open innovation paradigm", *World Journal of Science, Technology and Development*, *9*(1), 6-27.

Abubakar, A. M., Elrehail, H., Alatailat, M. A., & Elçi, A. (2019). Knowledge management, decision-making style and organizational performance. *J. Innov. Knowl*. *4*(1), 104–114.

Ade T O., & Olusegun F A., (2014). Financial malpractices and stock market development in Nigeria, *Journal of Financial Crime*, *21*(3), 336 – 354.

Adel, H. M., & Younis, R. A. A. (2021). Interplay among blockchain technology adoption strategy, e-supply chain management diffusion, entrepreneurial orientation and human resources information system in banking. *International Journal of Emerging Markets*. *1*(1), 1-18.

AfBD, (2015). Afdb-board-of-directors-approves-the-banks-knowledge-management-strategy-for-2015-2020. Retrieved from https://www.afdb.org /en/news-6/

Agyabeng-Mensah, Y., Ahenkorah, E., Afum, E., Agyemang, A.N., Agnikpe, C. & Rogers, F. (2020). Examining the influence of internal green supply chain practices, green human resource management and supply chain environmental cooperation on firm performance. *Supply Chain Management*: *An International Journal,* 585-599.

Ahmed, S., Sheikh, A., & Akram, M. (2018). Implementing knowledge management in university libraries of Punjab, Pakistan. *Information Discovery and Delivery*, *46*(2), 83-94.

Ajith Kumar, J. & Ganesh, L.S. (2011). Balancing knowledge strategy: explicit-oriented knowledge management strategy and tacit-oriented during product development, *Journal of Knowledge Management*, *15*(1), 118-35.

Akhavan, P., Ramezan, M. & Moghaddam, J. (2013). Examining the role of ethics in knowledge management process. Case study: an industrial organization, *Journal of Knowledge-Based* Innovation in China, *5*(2), 129-145.

Al Shahzad, K., (2016). Integrating knowledge management (KM) strategies and processes to enhance organizational creativity and performance: An empirical investigation. *Journal of modelling in management*. *11*(1), 154 – 179.

Al-Abdullat, B.M. & Dababneh, A. (2018). The mediating effect of Job Satisfaction on the relationship between organizational Culture and Knowledge Management in Jordanian Banking Sector. Benchmarking: *An International Journal 25* (2), 517-544.

Aladwan, S. A., AL-Yakoub, T. A., & Adaileh, A. M. (2022). Challenges of knowledge management in the public sector: evidence from the King Abdullah Award for Excellence in Jordan. *The TQM Journal*. *1*(1), 1-20.

Al-Ajmi, Z., & Al-Busaidi, K. A. (2022). Mitigating knowledge-sharing risks among ICT knowledge workers in the government sector. *VINE Journal of Information and Knowledge Management Systems*. *24*(2), 330-351.

Alberto, F., Gabriele, S., & Luca, D. (2017). How MNC's subsidiaries may improve their innovative performance? The role of external sources and knowledge management capabilities, *Journal of Knowledge Management, 21*(3), 540-552.

Al-Dmour, A., Al-Dmour, R., & Rababeh, N. (2020). The impact of knowledge management practice on digital financial innovation: the role of bank managers. *VINE Journal of Information and Knowledge Management Systems*, *51*(3), 492-514.

Alfes, K., Shantz, A., Truss, C. & Soane, E. (2013). The link between perceived human resource management practices, engagement and employee behaviour: a moderated mediation model, *The International Journal of Human Resource Management*, *24*(2), 330-351.

Ali, E., Fahimeh, R., Fatemeh, M. & Reza, M. (2019). "Prediction of organizational commitment based on job satisfaction dimensions among employees of the ministry of health and medical education", *Caspian Journal of Health Research, 4* (2). 49-53.

Allan, M., & Elena, A. (2013). Translating strategy into practice: the role of communities of practice, *Journal of Strategy and Management, 6* (3), 265 – 285.

Al-Musali, M.A. & Ku I, K.N.I. (2016). Cross-country comparison of intellectual capital performance and its impact on financial performance of commercial banks in GCC countries, International *Journal of Islamic and Middle Eastern Finance and Management, 9*(4), 512-531.

Alolayyan, M. N., Alyahya, M. S., & Omari, D. A. (2021). Strategic human resource management practices and human capital development: The role of employee commitment. *Probl. Perspect. Manag*, *19*(2), 157-169.

Al-Omoush, K.S., Simon-Moya, V. & Sendra-García, J. (2020). "The impact of social capital and collaborative knowledge creation on e-business

proactiveness and organizational agility in responding to the COVID-19 crisis", *Journal of Innovation and Knowledge,* (4), 279-288.

Alosani, M.S. & Al-Dhaafri, H.S. (2021). "An empirical examination of the relationship between benchmarking, innovation culture and organizational performance using structural equation modelling", *The TQM Journal, 33*(4), 930-964.

Al-Romeedy, B.S. (2019). The role of job rotation in enhancing employee performance in the Egyptian travel agents: the mediating role of organizational behaviour. *Tourism Review, 74*(4), 1003-1020.

Alton, Y.K. & Chua, S. B. (2013). Customer knowledge management via social media: the case of Starbucks, *Journal of Knowledge Management*, *17*(2), 237 – 249.

Amitabh, A. & Isabelle, W. (2016). Should knowledge be shared generously? Tracing insights from past to present and describing a model, *Journal of Knowledge Management, 20*(4), 713 – 73.

Ana, C., Gisela, D. and Tatiane, P. (2019), "Do human resources policies and practices produce resilient public servants? Evidence of the validity of a structural model and measurement models", *Revista Brasileira de Gestao de Negocios, 21*(1), 70-85.

Anand, A., (2016). Should knowledge be shared generously? Tracing insights from past to present and describing a model. *Journal of Knowledge Management*. *20*(4), 713 – 73.

Andreas, H. (2013). Can competitive advantage be predicted? *Management Decision, 51*(4), 795 -812.

Andriani, M., Samadhi, T.M.A.A., Siswanto, J. & Suryadi, K. (2019). "Knowledge management strategy: an organizational development approach", *Business Process Management Journal, 25*(7), 1474-1490

Anglin, A.H., Reid, S.W., Short, J.C., Zachary, M.A. & Rutherford, M.W. (2017). "An archival approach to measuring family influence", *Family Business Review*, *30*(1), 19-36.

Anitha, J. (2014). "Determinants of employee engagement and their impact on employee performance", *International Journal of Productivity and Performance Management*, *63*(3), 308-323.

Annosi, M.C., Casprini, E., Martini, A. & Ramón Torres, J.G. (2021). "Post-acquisition knowledge management practices for exploration and exploitation: insights from a food service organization", *Journal of Knowledge Management, 25*(11), 129-148

Antje, S. & Thomas, B. (2014). The role of R&D investments in highly R&D-based firms, *Studies in Economics and Finance*, *31*(1), 3–45.

Antonio, L., Jose, L., Roldán, A. L., Leal-Rodríguez & Jaime, O. G, (2016). IT and relationship learning in networks as drivers of green innovation and customer capital: evidence from the automobile sector, *Journal of Knowledge Management*, *20* (3), 444 – 464.

Archer-Brown, C., & Kietzmann, J. (2018). Strategic knowledge management and enterprise social media. *Journal of knowledge management*. *22*(4), 1288–1309.

Armstrong, M. & Brown, D. (2019). "Strategic human resource management: back to the future", A Literature Review, Chartered Institute of Personnel and Development (CIPD). Berger, R., pp. 1-50. Retrieved from https://www.employment-studies.co.uk/system/files/resources/files/517_ *StrategicHuman-Resource-Management-Back-to-the-future*-IES-CIPD-2019.pdf

Arranz, N., Arroyabe, M., Li, J. & Fernandez de Arroyabe, J.C. (2020). "Innovation as a driver of ecoinnovation in the firm: an approach from the dynamic capabilities theory", *Business Strategy and the Environment*, *29*(3), 1494-1503.

Arunprasad, P. (2016). Guiding metaphors for knowledge-intensive firms Strategic HRM practices and knowledge strategies, *International Journal of Organizational Analysis*, *24*(4), 743 -772.

Arwa, Y. A. (2014). Technology knowledge management (TKM) taxonomy, VINE: *The journal of information and knowledge management systems, 44*(1), 2 – 21

Asare, E.K., Whittington, J.L. & Walsh, R. (2020). "Promoting desirable work attitudes and behaviors among accountants: a field study", *Journal of Business & Industrial Marketing, 35*(10), 1-14.

Asiaei, K., & Bontis, N. (2019). Translating knowledge management into performance: the role of performance measurement systems. *Management Research Review*. *24*(4), 743 -772

Averweg, U.R. (2012). Thekwini municipality's intranet for augmenting knowledge-sharing in the organization, *South African Journal of Information Management*, *14*(1), 1-6.

Ayough, A., Farhadi, F. & Zandieh, M. (2021), "The job rotation scheduling problem considering human cognitive effects: an integrated approach & quota, *Assembly Automation, 41*(2), 221-236.

Ayough, A., Hosseinzadeh, M. & Motameni, A. (2020), " Job rotation scheduling in the Seru system: shake enforced invasive weed optimization approach & quot;, *Assembly Automation, 40*(3), 461-474.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioural change. *Psychological Review*, *84*(2), 191-215.

Bangladesh Bank (2013*). Banks and Financial Institutions, Bangladesh Bank*, available at: http:/www.bangladesh-bank.org/fnansys/bankfi.php

Barbu, A., Simion, P.C., Popescu, M.A.M., Marcu, I.C.C., & Popescu, M.V. (2020), Exploratory study of the BPM tools used by Romanian industrial service companies to increase business performance. *TEM Journal*, *9* (2) 546-551.

Barney, J. B. (2001). Is the resource-based "view" a useful perspective for strategic management research? Yes. Acad. *Manage. 26*(1), 41-56.

Barney, J.B. (1995). Looking inside for Competitive Advantage. *Academy of Management Executive, 9*(4), 49-61.

Barney, J.B., Wright, M. & Ketchen, Jr. D.J. (2001). The Resource Based View of the Firm: Ten years after1991. *Journal of Management*. Social Capital Theory and *Knowledge Management 1*(27), 625-641.

Barry, B. Bryan, A. & Jeffrey, A. O, (2013). Connecting strategy-linked outsourcing approaches and expected performance, *International Journal of Physical Distribution & Logistics Management*, *43*(3), 176 – 204.

Bencsik, A. (2021). The sixth generation of knowledge management–the headway of artificial intelligence. *Journal of International Studies*, *14*(2), 1-20

Bendor-Samuel, P. (2020). "Managing productivity with employees working from home. *Forbes*. Retrieved from http:// www.forbes.com/sites/ peterbendorsamuel/ 2020/06/09/manage-productivity-withemployees-working-from-home/#353d2b0f2ce9

Bereznoy, A., Meissner, D., & Scuotto, V. (2021). "The intertwining of knowledge sharing and creation in the digital platform-based ecosystem. A conceptual study on the lens of the open innovation approach", *Journal of Knowledge Management, 25*(8), 1-15

Bettiol, M., Di Maria, E., & Grandinetti, R. (2012). Codification and creativity: knowledge management strategies in KIBS. *Journal of Knowledge Management*. *14*(1), 49-65.

Beutell, N.J., Alstete, J.W., Schneer, J.A., & Hutt, C. (2019). A look at the dynamics of personal growth and Self-employment exit. *International Journal of Entrepreneurial Behavior* & amp; *Research*. 25(7), 1452-1470

Bhatti, S.H., Vorobyev, D., Zakariya, R. & Christofi, M. (2020). Social capital, knowledge sharing, work meaningfulness and creativity: evidence from the Pakistani pharmaceutical industry, *Journal of Intellectual Capital, 1*(1), 1-20.

Bilgic, E. (2020). Human resources information systems: a recent literature survey. *Contemporary global issues in human resource management*. *51*(3), 492-514.

Bogodistov, Y., & Wohlgemuth, V. (2017). Enterprise risk management: a capability-based perspective. *The Journal of Risk Finance*. *5*(3), 42-51

Bolisani, E., & Scarso, E. (2015). Strategic planning approaches to knowledge management: a taxonomy. *Vine*. 29 (1) 34-67.

Boluk, K. (2013). Using CSR as a tool for development: an investigation of the fair hotels schemein Ireland. *Journal of Quality Assurance in Hospitality & Tourism*, *14*(1), 49-65.

Boon, C., Eckardt, R., Lepak, D.P. & Boselie, P. (2018). "Integrating strategic human capital and strategic human resource management". *The International Journal of Human Resource Management, 29*(1), 34-67.

Booth-LeDoux, S.M., LeDoux, J.A. & Champagne, L. (2019). "Employee retention: a turnover analysis of boomerang employees", *International Journal of Work Organisation and Emotion, 10*(2), 91-108.

Booth-LeDoux, S.M., LeDoux, J.A. & Champagne, L. (2019). Employee retention: a turnover analysis of boomerang employees. *International Journal of Work Organisation and Emotion, 10*(2), 91-108.

Bouaziz, F. & Hachicha, Z.S. (2018). Strategic human resource management practices and organizational resilience. *Journal of Management Development*, *37*(7), 537-551.

Brewer, B., Ashenbaum, B., & Ogden, J. A. (2013). Connecting strategy-linked outsourcing approaches and expected performance. *International Journal of Physical Distribution & Logistics Management. 51*(3), 492-514.

Brian, H., Ann, L., Michele O., (2014). Perceptions of product advantage, NPD and organizational performance. *Journal of Small Business and Enterprise Development*, 21 (1), 49-68, 1462-6004

Brinkmann, S., & Kvale, S. (2015*). Inter Views: Learning the Craft of Qualitative Research Interviewing,* 3, Sage Publications, Los Angeles, CA.

Britt, B.C. & Britt, R.K. (2020). From waifus to whales: the evolution of discourse in a mobile gamebased competitive community of practice. *Mobile Media & Communicatio.* Retrieved from https://journals. sagepub. com/doi/abs /10.1177/2050157920934509

Brosy, J., Bangerter, A. & Sieber, J. (2021). "Laughter in the selection interview: Impression management or honest signal?", *European Journal of Work and Organizational Psychology, 30*(2), 319-328.

Brosy, J., Bangerter, A. & Sieber, J. (2021). "Laughter in the selection interview: Impression management or honest signal?", *European Journal of Work and Organizational Psychology, 30*(2), 319-328.

Bruce, M., (2015). Hiring for attitude and training for skill in the library, New *Library World*, *116*(7/8), 467-470.

Bryman, A. (2012). *Social Research Methods*. New York: Oxford university press.

Bryman, A. (2016). *Social Research Methods*. New York: Oxford university press.

Butt, H. P., Tariq, H., Weng, Q., & Sohail, N. (2019). I see you in me, and me in you: the moderated mediation crossover model of work passion. *Personnel Review*. *51*(3), 492-514.

Cambridge University (2020). *Meaning of Performance in English,* Cambridge University Press. Retrieved from https://dictionary.cambridge.org/dictionary/english/performance

Canonico, P., De Nito, E., Esposito, V., Iacono, M.P. & Consiglio, S. (2020). "Knowledge creation in the automotive industry: analysing obeya-oriented practices using the SECI model", *Journal of Business Research, 112*(1), 450-457.

Cao, X., Ali, A., Pitafi, A. H., Khan, A. N., & Waqas, M. (2020). A socio-technical system approach to knowledge creation and team performance: evidence from China. *Information Technology & People*. 16(1), 92 – 117.

Cauwelier, P., Ribiere, V.M. & Bennet, A. (2019). "The influence of team psychological safety on team knowledge creation: a study with French and American engineering teams", *Journal of Knowledge Management*, *23*(6), 1157-1175.

Central Bank of Kenya (2014). *Bank supervision annual report*. Central Bank of Kenya, Nairobi

Central Bank of Kenya (2015). *Bank supervision annual report*. Central Bank of Kenya, Nairobi

Central Bank of Kenya (KE), (2016). *Directory-of-Licenced-Commercial-Banks-Mortgage-Finance-Institutions-and-NOHCs*. Retrieved from https://www.centralbank.go.ke/wp-content/uploads/2016/06/ -1.pdf

Central Bank of Kenya (KE), (2016). Retrieved from https://www.centralbank.go.ke/uploads/banking_sector_reports/1698589008_33%20Developments%20in%20the%20Kenyan%20Banking%20Sector%20for%20the%20quarter%20ended%2031st%20March%202016.pdf.accesses23/02/2017

Central Bank of Kenya (KE), (2017). https://www.centralbank.go.ke/uploads/financialsectorstability/1371231931_Financial%20Stability%20Report%202017.pdf

Central Bank of Kenya (KE), (2017). Press-Release-*Acquisition-of-Habib-Bank-Kenya-Branch-by-Diamond-Trust-Bank.* Retrieved from https://www.centralbank.go.ke/ wp-content/uploads/2017/07/ pdf

Cevahir, U. R., Kumar, H. S. & Kimzan, G. E., (2013). Role of innovation in the relationship between organizational culture and firm performance. A study of the banking sector in Turkey, *European* Jour*nal of Innovation Management, 16*(1), 92 – 117.

Chatterjee, S., Rana, N.P. & Dwivedi, Y.K. (2020). "Social media as a tool of knowledge sharing in academia: an empirical study using valance, instrumentality and expectancy (VIE) approach", *Journal of Knowledge Management, 24*(10), 2531-2552.

Chen, H. J., & Xiaoting, Z. (2016). A knowledge-based theory of the firm: managing innovation in biotechnology, *Chinese Management Studies, 10*(1), 41 – 58.

Chen, H., Baptista Nunes, M., Ragsdell, G., & An, X. (2018). Extrinsic and intrinsic motivation for experience grounded tacit knowledge sharing in Chinese software organisations. *Journal of Knowledge Management, 22*(2), 478-498,

Cheng, C. C. J., & Huizingh, E. K. R. E. (2014). When Is Open Innovation Beneficial? The Role of Strategic Orientation. *Journal of Product Innovation Management, 31*(1) 1235–1253.

Cheng, E.C.K. (2012). "Knowledge strategies for enhancing school learning capacity", *International Journal of Education Management*, *26*(6)*, 577-592.

Chesbrough, H W., (2003). *The era of open innovation".* MIT Sloan Management Review. *44*(3): 35–41.

Chesbrough, H.W. (2006). Open Innovation: A New Paradigm for Understanding Industrial. In: Chesbrough HW, Vanhaverbeke W, West J (eds) *Open innovation: researching a new paradigm*. Oxford University Press.

Chia-Chi L, (2013). Business service market share, international operation strategy and performance, *Baltic Journal of Management*, *8*(4), 463

Chiara C J, Ylimäki C. A & Sirén D N, (2015). The role of knowledge intermediaries in co-managed innovations. *Journal of Business & Industrial Marketing*. *30*(8), 951 – 961.

Chiaroni, D., Chiesa, V. & Frattini, F. (2011). The open innovation journey: how firms dynamically implement the emerging innovation management paradigm, *Technovation, 31*(1), 34-43.

Chigada, J. (2014). *The role of knowledge management in enhancing organisational performance in selected banks in South Africa* (Doctoral dissertation).

Chinho, L. & Hua-Ling, T. (2016). Achieving a firm's competitive advantage through dynamic capability, Baltic. *Journal of Management*, *11*(3), 260 – 285.

Choi, B., Poon, S.K. & Davis, J.G. (2008), Effects of knowledge management strategy on organizational performance: a complementarity theory-based approach. *Omega International Journal of Management Science, 36*(2), 235-251.

Chowdhury, L.A.M., Rana, T. & Azim, M.I. (2019). "Intellectual capital efficiency and organizational performance: In the context of the pharmaceutical industry in Bangladesh", *Journal of Intellectual Capital, 20*(6), 784-806.

Chun, J. S., Brockner, J., & De Cremer, D. (2018). How temporal and social comparisons in performance evaluation affect fairness perceptions. *Organizational Behavior and Human Decision Processes*, *1*(1), *145*, 1-15.

Cochran, W. G. (1977). *Sampling techniques*. John Wiley & Sons.

Colakoglu, S. S., Erhardt, N., Pougnet-Rozan, S., & Martin-Rios, C. (2019). Reviewing Creativity and Innovation Research Through the Strategic HRM Lens. En Buckley, MR, Wheeler, AR, Baur, JE, y Halbesleben, JRB (Ed.) *Research in Personnel and Human Resources Management*, *37*, 227-271.

Collins, C., & Kehoe, R. (2017). Examining strategic fit and misfit in the management of knowledge workers. *ILR Review*, *70*(2), 308-335.

Colman, H.L. & Rouzies, A. (2019). "Postacquisition boundary spanning: a relational perspective on integration", *Journal of Management, 45*(5), 2225-2253.

Colquitt, J.A., LePine, A. & Wesson, M.J. (2017). Organizational Behaviour: *Improving Performance and Commitment in the Workplace,* 5th ed., McGraw – Hill Education, New York, NY.

Colquitt, J.A., Scott, B.A., Rodell, J.B., Long, D.M., Zapata, C.P., Conlon, D.E. & Wesson, M.J. (2013). Justice at the millennium, a decade later: a meta-analytic test of social exchange and affect-based perspectives, *Journal of Applied Psychology*, *98*(2), 199-205.

Communications Authority of Kenya (2013- 2014)

Communications Authority of Kenya (2014- 2015)

Conner, K.R. (1991). A Historical Comparison of the Resource-Based Theory and Five Schools of Thought Within Industrial Organization Economics: Do We Have a New Theory of the Firm? *Journal of Management*, 17(1), 121–154.

Cooper, D. & Schindler, P. (2014). *Business Research Methods*. Columbus, OH: McGraw-Hill Irwin

Costa, A.A., Workiewicz, M. & Szulanski, G. (2015). On the foundations of organizational knowledge: interview with Professor Sidney G. Winter, *Journal of Management Inquiry*, 25(2) 233-456.

Costa, A.I.A., Greco, M., Grimaldi, M. & Cricelli, L. (2015). Open innovation in the European food & drink industry: a CIS-based empirical study", Proceedings of the 44th European Marketing Academy (EMAC) Annual Conference in Leuven, KU Publication, 1-7.

Cresw Kaushal, A., & Singh, S. K. (2017). Critical analysis of adsorption data statistically. Applied Water Science, 7(6), 3191-3196.

Cell, J. (2018). W. (2012). Research Design Qualitative & Quantitative Approaches.

Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approach.* Sage publications.

Criscuolo, P., Laursen, K., Reichstein, T. & Salter, A. (2018). Winning combinations: search strategies and innovativeness in the UK. *Industry and Innovation, 25*(2), 115-143.

Cristea, D. S; Căpațînă. A. (2009). Perspectives on knowledge management models. *The Annals of "Dunarea de Jos"* University of Galati Fascicle I – 2009. Economics and Applied Informatics. Years, *XV*(2). Retrieved from http://www.ann.ugal.ro/eco/Doc2009_ 2/Cristea_Capatina.pdf

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *psychometrika*, *16*(3), 297-334.

Cropanzano, R. & Mitchell, M.S. (2005). Social exchange theory: an interdisciplinary review, *Journal of Management*, *31*(6), 874-900.

Cytton, (2017). *Kenya Banking Sector Restructuring*. Retrieved fromhttps://cytonn.com/research/update-january-22-2017accessed/03/2017

Dahlan, S. & Dewasiri, J. (2019). Factors influencing employee performance in the leading conglomerate in Sri Lanka. *Colombo Journal of Advanced Research, 1*(1), 102-129.

Dalkir, K. (2011). *Knowledge Management in Theory and Practice*. London: The MIT Press.

Dalkir, K. (2017). *Knowledge Management in Theory and Practice*. London: The MIT Press

Daneshgari, P., & Moore, H. (2016). Organizational transformation through improved employee engagement–"How to use effective methodologies to improve business productivity and expand market share". *Strategic HR Review*. *19*(4), 398-412.

David, D. & Evelyne, L. T. (2013). The organisation of innovation in the wine industry, *European Journal of Innovation Management*, *16*(2), 171 – 189.

David, G. (2016). Autocorrelation. School of Business administration Portland State University

de Oliveira Paula, F., & da Silva, J. F. (2017). Innovation performance of Italian manufacturing firms: The effect of internal and external knowledge sources. *European Journal of Innovation Management*. *70*(2), 308-335.

De Toni, A. F., & Fornasier, A. (2012). *La guida del Sole 24 Ore al Knowledge management*. Gruppo 24 Ore.

De Vaus, D. (2013). *Surveys in Social Research*, Routledge, New York, NY.

Dechawatanapaisal, D. (2018). "Examining the relationships between HR practices, organizational job embeddedness, job satisfaction and quit intention", Asia-Pacific *Journal of Business Administration, 10*(2/3), 130-148.

Delery, J.E. & Roumpi, D. (2017). "Strategic human resource management, human capital and competitive advantage: is the field going in circles?", *Human Resource Management Journal, 27*(1), 1-21.

Deloitte (2016), Kenya Economic outlook 2016. Retrieved from https://www2.deloitte.com/content/dam/Deloitte/ke/Documents/tax/Economic%20Outlook%202016%20KE.pdf\accessed 23/02/2017

Derrick, M. X., & Wang, A. (2016). Measuring knowledge in organizations: a knowledge-in-practice approach, *Journal of Knowledge Management, 20*(4), 637 - 652

Desa, N. M., & Asaari, M. H. A. H. (2020). Mediation of Perceived Organizational Support between Human Resources Practices and Job Performance among Engineers in the Penang Free Trade Zone. *International Journal of Asian Social Science*, *10*(7), 368-380.

Descombe, M. (2014). La buena guía de investigación: para proyectos de investigación social a pequeña escala.

Díaz-Díaz, N. L., & de Saá Pérez, P. (2014). The interaction between external and internal knowledge sources: an open innovation view. *Journal of Knowledge Management*.

Didier, T. & Schmukler, S.L. (2013). The financing and growth of firms in China and India: evidence from capital markets, *Journal of International Money and Finance 1*(39), 111-137.

Dixit, R., & Sinha, V. (2021). Training as a Strategic HRM Tool to Foster Employee Development in SMEs. In *Handbook of Research on Strategies and*

Interventions to Mitigate COVID-19 Impact on SMEs (pp. 609-628). IGI Global.

Do, T. T., & Mai, N. K. (2020). High-performance organization: a literature review. *Journal of Strategy and Management*. *15*(1), 104-467.

Dulanjani, P.A. & Priyanath, H.M.S. (2020). "Intellectual capital and business performance of self-employers in Sri Lanka: an empirical investigation", *International Journal of Research and Innovation in Social Science* (IJRISS), 4(1), 280-287.

Dyer, L., & Reeves, T. (1994). Human resource strategies and firm performance: what do we know and where do we need to go? CAHRS. Working Paper Series, Paper 254, Cornell University, Ithaca, NY.

El-Akruti, K. & Dwight, R. (2013). "A framework for the engineering asset management system", *Journal of Quality in Maintenance Engineering*. *19*(4), 398-412.

Elia, G., Petruzzelli, A.M. & Urbinati, A. (2020). "Implementing open innovation through virtual brand communities: a case study analysis in the semiconductor industry", *Technological Forecasting and Social Change*, 155, doi: 10.1016/j.techfore.2020.119994.

Elisa, F. L., Pais, S. M., & Lisete, M. (2016). Human resource management impact on knowledge management, *Journal of Service Theory and Practice*, *26*(4), 497 – 528.

Elsetouhi, A., Hammad, A., Nagm, A. & Elbaz, A. (2018). Perceived leader behavioural integrity and employee voice in SMEs travel agents: the mediating role of empowering leader behaviors. *Tourism Management*, *65*(1), 100-115.

Emam, M., Fahmy, T., & Gaafar, H. (2019). Impact of job rotation on the organizational commitment level of the employees in the Egyptian travel

agencies: the mediating role of job involvement. *Journal of Tourism and Hotels* Faculty – the University of Sadat City, *3*(2), 1-17.

Emerson, R.M. (1976). Social exchange theory, *Annual Review of Sociology*, *2*(1) 335-362, available at: www.jstor.org/stable/2946096

Endres, M.L., Endres, S.P., Chowdhury, S.K. & Alam, I. (2007). Tacit knowledge sharing, self-efficacy theory, and application to the open source community", *Journal of Knowledge Management, 11*(3), 92-103.

Equity Bank Group (2017). *Integrated Report and Financial Statement*. Retrieved from http://equitybankgroup.com/uploads/default/files/2017/equity group holdings limited 2016. pdf

Eric C, (2017). Knowledge management strategies for capitalising on school knowledge", VINE *International Journal of Educational Management*, *26*(6), 577 – 592

Ettore, B., & Enrico S, (2015). Strategic planning approaches to knowledge management: *a taxonomy*, *VINE*, *45*(4), 495 – 508.

European Commission (2012), "Knowledge-intensive (business) services in Europe", Retrieved from http://ec.europa.eu/research/innovation union/pdf/knowledge _ intensive_business_services_in_europe_2011.pdf

European Commission (2013). *Open innovation 2.0: Dublin Innovation Declaration, European Commission.*

Explorable Statistics (2012). Research Methodology, Data Analysis and presentation. Externally Determined Resource Value: Further Comments. *Academy of Management Review. 26*(1), 57–66.

EY (2017). *Eastern African Banking Sector* pdf. Retrieved from http:/www.ey.com/publication/VWLUAssets/

Farok, J. & Contractor, (2013). Punching above their weight, *International Journal of Emerging Markets, 8*(4), 304 – 328.

Farooq, R. (2021). Employee exit and its relationship with multidimensional knowledge retention: the moderating role of organizational structure. *Vine Journal of Information and Knowledge Management Systems.*

Farouk, S., Elanain, H. M. A., Obeidat, S. M., & Al-Nahyan, M. (2016). HRM practices and organizational performance in the UAE banking sector: The mediating role of organizational innovation. *International Journal of Productivity and Performance Management. 10*(7), 368-380.

Ferraris, A., Santoro, G., & Dezi, L. (2017). How MNC's subsidiaries may improve their innovative performance? The role of external sources and knowledge management capabilities. *Journal of Knowledge Management. 70*(2), 308-335.

Fidell, S., Tabachnick, B., Mestre, V., & Fidell, L. (2013). Aircraft noise-induced awakenings are more reasonably predicted from relative than from absolute sound exposure levels. *The Journal of the Acoustical Society of America*, *134*(5), 3645-3653.

Figueiredo, E., Pais, L., Monteiro, S., & Mónico, L. (2016). Human resource management impact on knowledge management: Evidence from the Portuguese banking sector. *Journal of Service Theory and Practice. 37*, 227-271.

Fitzgerald, L. & Dopson, S. (2005). Knowledge, credible evidence, and utilization, in Dopson, S. and Fitzgerald, L. (Eds), Knowledge to Action? – *Evidence-based Health Care in Context,* Oxford University Press, Oxford, pp.132-54.

Fouad, Z. S., & Faraj, B. A, (2016). Organizational knowledge generation: lessons from online communities, *Business Process Management Journal, 22*(1), 33 – 55.

Gamal, M. S., (2015). Leveraging organizational performance via knowledge management systems platforms in emerging economies: Evidence from the Egyptian Information and Communication Technology (ICT) industry. *VINE, 45*(2), 239-278.

Gannon, J., Clayton, D. & Klenert, A. (2021). Mentoring Initiatives as Talent Management Innovations. Jooss, S., Burbach, R. and Ruël, H. (ed.) Talent Management Innovations in the International Hospitality Industry (Talent Management), *Emerald Publishing Limited*, Bingley, pp. 99-125.

Gathuku, G. M., & Njeru, A. (2016). Effect of mergers on financial performance of commercial banks in Kenya. *International Journal of Science and Research*, *5*(10), 1426-34.

Gavett, G. (2014), "The paying it forward-payoff", available at: https://hbr.org/2014/06/the-paying-it-forward-payoff/

George, E. & Zakkariya, K.A. (2015). Job related stress and job satisfaction: a comparative study among bank employees. *Journal of Management Development*, 34(3), 316-329.

George, M. G., & Agnes, N. (2016). Effect of Mergers on Financial Performance of Commercial Banks in Kenya. *International Journal of Science and Research (IJSR)*, 2319-7064.

George, N. (2016). Number of strong banks falls by 50pc on tough CBK rules. Retrieved from http://www.businessdailyafrica.com/Number-of-strong-banks-falls-by-50pc-on-tough-CBK-rules/539552-3331332-ug0ps6z/index.html/accessed23/02/2017

George, T. E., Karatu, K., & Edward, A. (2020). An evaluation of the environmental impact assessment practice in Uganda: challenges and opportunities for achieving sustainable development. *Heliyon*, *6*(9), 47-58.

Georgios, N. T, & Prodromos, Ch, (2014). The impact of best HRM practices on performance– identifying enabling factors, *Employee Relations*, *36*(5), 535-561.

Gert J. H., (2015). Culture's causes: the next challenge, *Cross Cultural Management,* 22(4), 545 – 569

Giovanni, S., D. & Carlucci, A. L., (2012). *Managing knowledge processes for value creation*, *VINE*, *42*(1), 4 – 14

Gitonga, B.A. (2015). *Introduction to Knowledge management Project Support*. Information Consultants Publication Series.

González, J., López-Sáez, P., Navas-López, J. E., & Delgado-Verde, M. (2014). Directions of external knowledge search: investigating their different impact on firm performance in high-technology industries. *Journal of Knowledge Management*, *18*(5), 847-66.

Goodhue, D. Lewis, W., & Thompson, R. (2012). Does PLS have advantage for small size or non-normal data? *Mis quarterly*, 36(3), 891-1001

Goyal, S., Ahuja, M. & Kankanhalli, A. (2020). "Does the source of external knowledge matter? Examining the role of customer co-creation and partner sourcing in knowledge creation and innovation", *Information and Management*, *57*(6), 103325 (1-14).

Grant, R.M. (1996). Toward a knowledge-based theory of the firm, *Strategic Management Journal*. *17*, 109-22.

Gratton, L. (2005). Managing integration through cooperation, *Human Resource Management*. *44*(2), 151-158.

Greener, S., & Martelli, J. (2015). *An Introduction to Business Research Methods,* Bookboon. com.

Grimsdottir, E., Edvardsson, I.R. & Durst, S. (2019). "Knowledge creation in knowledge-intensive small and medium sized enterprises", *International Journal of Knowledge-Based Development,* 10(1), 75-94.

Ham, J., Choi, B., & Lee, J. N. (2017). Open and closed knowledge sourcing: Their effect on innovation performance in small and medium enterprises. *Industrial Management & Data Systems*. *70*(2), 308-335.

Hamid, J. (2013). "Strategic human resource management and performance: the universalistic approach – case of Tunisia", *Journal of Business Studies Quarterly*, *5*(2), 184-201.

Hanaysha, J. (2016). "Improving employee productivity through work engagement: evidence from higher education sector", *Management Science Letters*, 6 (1) 61-70.

Hansen, M.T., Nohria, N. & Tierney, T. (1999). What's your strategy for managing knowledge? *Harvard Business Review*. *77*(2), 106-16.

Haque, A. (2020). "Strategic HRM and organizational performance: does turnover intention matter?", *International Journal of Organizational Analysis, 1*(1), 1-19

Harris, E.G. & Fleming, E.D. (2017). "The productive service employee: personality, stress, satisfaction and performance", *Journal of Services Marketing, 31*(6), 499-511.

Hasanzadeh, Mohammad; Daj, Soraya (2021). Developing a Model of Return on Investment in Knowledge Management. *International Journal of Information Science & Management. 2021*, *19*(2), 125-136.

Hayaeian, S., Hesarzadeh, R. & Abbaszadeh, M.R. (2021). The impact of knowledge management strategies on the relationship between intellectual capital and innovation: evidence from SMEs. *Journal of Intellectual Capital,* Emerald Publishing, in press.

Hendarsjah, H., Susanto, E., Sugianto, B.R.L., Handoko, T.H. & Trinugroho, I. (2019). Curvilinear relationship between intra-team trust and team innovation: the moderating role of task complexity. *Journal of Asia Business Studies, 13*(3), 472-487.

Higher Ed Learning Collective (2020), Retrieved from https://higheredlearning collective.org/

Hill, Charles, W.L., Jones, G. R, S, & Melissa, A. (2014). Strategic Management Theory: An integrated Approach. Cengage Learning.

Homans, G., (1961). *Social Behavior: Its Elementary Forms.* New York: *Harcourt Brace Jovanovich. 4*(3), 13-23.

Hong, J.F., Zhao, X. & Stanley Snell, R. (2019). "Collaborative-based HRM practices and open innovation: a conceptual review", *The International Journal of Human Resource Management, 30*(1), 31-62.

Hongmei, L, Kah-Hin C., & James F. N, (2013). Balancing explicit-oriented knowledge management strategy and tacit-oriented for knowledge reuse: a Markov decision process approach", *Journal of Knowledge Management, 17*(5), 755 – 772.

Hosomi, M., Sekiguchi, T. & Froese, F.J. (2020). Mentoring in Japan: A Systematic Review and Conceptual Model. Kumar, P. and Budhwar, P. (ed.) Mentorship-driven Talent Management, *Emerald Publishing Limited, Bingley, 1*(1), 43-65

Hsu, I.C. & Sabherwal, R. (2012). "Relationship between intellectual capital and knowledge management: *an empirical investigation", Decision Sciences,* 43(3), 489-524.

Hughes, M., Hughes, P., & Morgan, R.E. (2007). "Exploitative learning and entrepreneurial orientation alignment in emerging young firms: implications

for market and response performance", *British Journal of Management, 18*(4), 359-375.

Huikkola, T., Ylimäki, J. & Kohtamäki, M. (2013). Joint learning in R&D collaborations and the facilitating relational practices, *Industrial Marketing Management*, *42*(7), 1167-1180.

Human Resource Management Professionals Act 2012.

Hutahayan, B. (2019). "Performance art strategy for tourism segmentation: (A silat movement of Minangkabau ethnic group) in the event of tourism performance improvement", *Journal of Islamic Marketing, Forthcoming*.

Hutahayan, B. (2019). A review and research agenda in business model innovation. *International Journal of Pharmaceutical and Healthcare Marketing*. *77*(2), 106-16.

Hutchins, E. (1995). How a cockpit remembers its speeds? Cognitive Science, *19*, 265-288.

Hutchins, E., & Klausen, T. (1996). Distributed cognition in an airline cockpit. *Cognition and communication at work*, 15-34.

Icpak (2017). *Interest Rates Capping.* Retrieved from https://www.icpak.com/wp-content/uploads/-CPA-Habil.pdf

Ilpo, P., & Anu, P, (2016). Group dynamics and the role of ICT in the life cycle analysis of community of practice-based product development: a case study, *Journal of Knowledge Management, 20*(3), 465 – 483.

Ingi, R. & Edvardsson, S. D., (2014). Outsourcing of knowledge processes: a literature review, *Journal of Knowledge Management*, *18*(4), 795 – 811.

Inkinen, H. (2016), "Review of empirical research on knowledge management practices and firm performance", *Journal of Knowledge Management*, Vol. 20(2), 230-257.

Iqbal, M.Z. & Haq, M.I. (2020). Cultivating Talent of Interns through Workplace Mentoring: A Critical Appraisal of a Pakistani Initiative. Kumar, P. & Budhwar, P. (ed.) *Mentorship-driven Talent Management,* Emerald Publishing Limited, Bingley, pp. 211-227.

Iqbal, S., Rasheed, M., Khan, H. & Siddiqi, A. (2020). Human resource practices and organizational innovation capability: role of knowledge management. *VINE: Journal of Information and Knowledge Management Systems.*

Jahmani, K., Fadiya, S.O., Abubakar, A.M. & Elrehail, H. (2018). Knowledge content quality, perceived usefulness, KMS use for sharing and retrieval. *VINE: Journal of Information and Knowledge Management Systems, 48*(4) 470-490,

Jain, A.K. & Moreno, A. (2015). Organizational learning, knowledge management practices and firm's performance: an empirical study of a public sector organization in India. *The Learning Organization*, *22*(1) 14-39.

Jammulamadaka, N. (2020). Reverse Mentoring in India: How Organizational and Socio- cultural Context Matters. Kumar, P. & Budhwar, P. (ed.) Mentorship-driven Talent Management, *Emerald Publishing Limited, Bingley, pp.* 149-168.

Janet, C.N., Wee Alton Y.K. & Chua, C.S. (2013). The peculiarities of knowledge management processes in SMEs: the case of Singapore, *Journal of Knowledge Management*, *17*(6), 958 – 972.

Jasimuddin, S.M. & Zhang, Z. (2009). The symbiosis mechanism for effective knowledge transfer. *Journal of the Operational Research Society, 60*(5), 706 -716.

Javaid, J., Soroya, S. & Mahmood, K. (2020). "Impact of personal and organizational factors on knowledge sharing attitude of university teachers in Pakistan", *The Electronic Library, 38*(2), 317-336,

Jiang, K., Lepak, D.P., Hu, J. & Baer, J.C. (2012).   How does human resource management influence organizational outcomes? A meta-analytic investigation of mediating mechanisms, *Academy of Management Journal*, *55*(6), 1264-1294.

Jiménez-Jiménez, D. & Sanz-Valle, R. (2008). Could HRM support organizational innovation, *The International Journal of Human Resource Management*, *19*(7), 1208-1221?

Jin C H, & Jiao X Z., (2016). A knowledge-based theory of the firm: managing innovation in biotechnology, *Chinese Management Studies*, *10I*(1), 41 – 58.

Jin H., Joseph Y. W., Young, J. & Jeong, H. Y., (2015). Knowledge strategy and business model conditions for sustainable growth of SMEs, *Journal of Science & Technology Policy Management*, *6*(3), 246 – 262.

John, P., & Wilson, L. C. (2016). Developing a knowledge management policy for ISO 9001: 2015, *Journal of Knowledge Management*, *20*(4), 829 – 844.

Johnston, R., Kelvyn, J., & Manley, D. (2017). *Confounding and Collineriality in Regression Analysis: A Cautionary Tale and an Alternative Procedure, Illustrated by studies of British Voting Behaviour*. New York, U.S.A: Springer.

Jordan Bank Association. (2020). *Association of banks in Jordan.* https://www. Jordan financialservices.com/about-sector/association-banks-jordan

Jöreskog, K. G., Olsson, U. H., & Wallentin, F. Y. (2016). Confirmatory factor analysis (CFA). In *Multivariate analysis with LISREL* (pp. 283-339). Springer, Cham.

Jorge C, Pedro L, José E., Navas-López, & Miriam D. V, (2014). Directions of external knowledge search: investigating their different impact on firm performance in high-technology industries. *Journal of Knowledge Management, 18*(5), 847-866.

Jose, P., Cristina V. & Fidel, L. D, (2014). Augmenting versus exploiting entry modes in soft services, *International Marketing Review*, *31*(6), 621 – 636.

Joseph, B., Glen W., D, (2014). Communities of practice: linking knowledge management and strategy in creative firms. *Journal of Business Strategy.* *35*(6), 49 – 57.

Jugdev, K., Mathur, G. & Fung, T. (2019). Mediated effect of project management asset characteristics on firm performance. *International Journal of Managing Projects in Business, 13*(7), 1442-1464.

Julie, C., Denis, M, & Stéphane, R. (2013). How does variable pay relate to pay satisfaction among Canadian workers? *International Journal of Manpower, 34*(5), 465-485,

Justin, M., K. (2015). *Influence of Human Resource Diversity Management Practices on Performance of Non-Commercial Government Agencies in Kenya.* [Published PhD. Theses, Jomo Kenyatta University of Agriculture and Technology].

Juyeon, H., Byounggu, C, & Jae-Nam L, (2017). Open and closed knowledge sourcing: Their effect on innovation performance in small and medium enterprises, *Industrial Management & Data Systems*, *117*(6), 1166-1184,

Kaidong F., Qunhong S., & Shuming Z (2014). Institutional influence, cognition and competence of top managers and innovative firms, *Chinese Management Studies*, *8*(1), 41 – 65

Kale, A. P., & Gawade, S. N. (2016). Studies on nanoparticle induced nutrient use efficiency of fertilizer and crop productivity. *Green Chemistry Technical Letter, 2*, 88-92.

Kalei, E & Nekesa S (2015). Effect *of Intra-Firm Institutionalization of Explicit Knowledge on Employee Performance in Energy Sector Organizations in*

Kenya. Published PhD. Theses, Jomo Kenyatta University of Agriculture and Technology.

Kane, G. C. (2017). The evolutionary implications of social media for organizational knowledge management. *Inf. Organ., 27*, 37–46.

Karma S., Lucy T., Weijun Z & Bosede A, (2013). An exploratory study of organization architecture and the balance between exploration and exploitation of knowledge, VINE: *The journal of information and knowledge management systems*, *43*(4), 442 – 461.

Kaufman, B.E., Barry, M., Wilkinson, A. & Gomez, R. (2021). "Alternative balanced scorecards built from paradigm models in strategic HRM and employment/industrial relations and used to measure the state of employment relations and HR system performance across U.S. workplaces", *Human Resource Management Journal, 31*(1), 65-92.

KCB Bank Group. com (2015). *Media/financial_ reports*/ _Full_2.pdf. Retrieved from https://ke.

Kenya National Bureau of Statistics–Third Quarter (2016). *QGDP Report.* Retrieved from:http://www.knbs.or.ke/index.php?option=com_phocadownload &view=category&id=135: gdp-2016&Itemid=599

Government of the Republic of Kenya, (2007). Kenya Vision 2030.

Khoi, L., D (2011). Vertical integration as an alternative governance structure of value chain quality management: the case of Pangasius industry in the Mekong River Delta. Can Tho University: Vietnam: Tho University:

Khuram S., Sami U., B, Ahmed F., Imtiaz S, Farhan A, & Ali R. S, (2016). "Integrating knowledge management (KM) strategies and processes to enhance organizational creativity and performance: An empirical investigation", *Journal of Modelling in Management, 11*(1), 154-179.

Kisira, S. (2016). Knowledge Management Is Crucial for Africa's Socio-Economic Growth. Retrieved from https://www.iafrikan.com/2016/12/21/knowledge-management-is-crucial-for-afrikas-socio-economic-growth/

Kmieciak, R. (2019). Improving SME performance through organizational memory: The role of open-mindedness culture. *Journal of Organizational Change Management*. *70*(2), 308-335.

Konno, N. & Schillaci, C.E. (2021). "Intellectual capital in society 5.0 by the lens of the knowledge creation theory", *Journal of Intellectual Capital, 22*(3), 478-505.

Kothari C. & Garg Z., (2014). *Research Methodology: Methods and Techniques,* (3rdEd.). New Delhi: New age international Publishers.

Krishna V & Hugh, W., (2016). Determining strategic shifts between explicit-oriented knowledge management strategy and tacit-oriented in operational environments, *Journal of Strategy and Management, 9*(1), 2

Kumar, A.J. & Ganesh, L.S. (2011). Balancing knowledge strategy: explicit-oriented knowledge management strategy and personalisation during product development, *Journal of Knowledge Management*, *15*(1), 118-135.

Kweh, Q.L., Ting, W.K., Hanh, T.M. & Zhang, C. (2019). "Intellectual capital, governmental presence, and firm performance of publicly listed companies in Malaysia", *International Journal of Learning and Intellectual Capital, 16*(2), 193-211.

Kyambi, J. M. (2015). *Influence of Human Resource Diversity Management Practices on Performance of Non-Commercial Government Agencies in Kenya* (Doctoral dissertation).

Lacity, M.C. & Willcocks, L.P. (2013). Legal process outsourcing: the provider landscape, Strategic Outsourcing: *An International Journal*, *6*(2), 167-183.

Laihonen, H., S. (2018). Strategic knowledge management and evolving local government. *Journal of Knowledge Management*.

Laila, M. (2016). The role of knowledge sharing culture in business performance, VINE *Journal of Information and Knowledge Management Systems*, *46*(2), 154-174,

Laith, A., Yousif, A., & Shahizan H, (2013). Knowledge management strategies, innovation, and organizational performance, *Journal of Advances in Management Research. 10*(1), 58 – 71

Lambe, C. J., Wittmann, C. M., & Spekman, R. E. (2001). Social Exchange Theory and Research on Business-to-Business Relational Exchange, *Journal of Business-to-Business Marketing, 8*(3), 1–36.

Leana, C.R., III & Van Buren, H.J. (1999). "Organizational social capital and employment practices", *Academy of Management Review, 24*(3), 538-555.

Lech, P. (2014). Managing knowledge in IT projects: a framework for enterprise system implementation, *Journal of Knowledge Management. 18*(3), 551-573.

Lee, C.S. & Wong, K.Y. (2015). "Development and validation of knowledge management performance measurement constructs for small and medium enterprises", *Journal of Knowledge Management*, *19*(4), 711-734.

Lee, S.H. & Ha-Brookshire, J. (2018). The effect of ethical climate and employees' organizational citizenship behavior on U.S. fashion retail organizations' sustainability performance. Corp. Soc. *Responsib. Environ. Manag.*, 25, 939–947

Lei, H., Le, P.B. & Do, N.K. (2019). Arousing a positive climate for knowledge sharing through moral lens: the mediating roles of knowledge-centered and collaborative culture. *Journal of Knowledge Management, 23*(8), 1586-1604.

Levallet, N. & Chan, Y.E. (2018). Role of digital capabilities in unleashing the power of managerial improvisation", *MIS Quarterly Executive, 17*(1), 1-21.

Levallet, N. & Chan, Y.E. (2019). Organizational knowledge retention and knowledge loss", *Journal of Knowledge Management, 23*(1), 176-199.

Li, J., Saide, S., Ismail, M.N. & Indrajit, R.E. (2021). Exploring IT/IS proactive and knowledge transfer on enterprise digital business transformation (EDBT): a technology-knowledge perspective. *Journal of Enterprise Information Management, 17*(1) 1-21

Limba, R.S., Hutahayan, B., Solimun, S. & Fernandes, A.A.R. (2019). Sustaining innovation and change in government sector organizations: examining the nature and significance of politics of organizational learning. *Journal of Strategy and Management, 12*(1), 103-115.

Lioukas, C. & Reuer, J. (2015). Isolating trust outcomes from exchange relationships: social exchange and learning benefits of prior ties in alliances, *Academy of Management Journal*, *58*(6)

Lopez-Nicolas, C. & Merono-Cerdan, A. (2011). "Strategic knowledge management, innovation and performance", *International Journal of Information Management, 31*(6), 502-509.

Lorenzo, O., Kawalek, P. & Ramdani, B. (2012). Enterprise applications diffusion within organizations: a social learning perspective, *Information & Management*. *49*(1), 47-57.

Luis, A. D. (2016). Knowledge will set you free, *International Journal of Emerging Markets* 11 (2), 121 – 147.

Lungu, V. (2019). Knowledge-based society - A condition to ensure sustainable development. Eastern European *Journal for Regional Studies (EEJRS), 5(1), 96-111.*

Luthans, F., Norman, S.M., Avolio, B.J. & Avey, J.B. (2008). "The mediating role of psychological capital in the supportive organizational climate – employee performance relationship", *Journal of Organizational Behavior*, 29 (2) 219-238.

Maamari, B., Achi, E.S.,Yahioaoui, D. & Nakhle, F.S. (2022). The effect of coaching on employees as mediated by organizational citizenship behavior: Case of Lebanon. *Euromed Journal of Business. 17*(1), 21-45.

Macharia, K., (2017). *I&M Holdings completes acquisition of Giro Bank:*https://www.standardmedia.co.ke/business/article/2001229744/i-m-holdings-completes-acquisition-of-girohttps://www.standardmedia.co.ke/business/ article/2001229744/i-m-holdings-completes-acquisition-of-giro/accessed1/ 03/2017

Mahapa, M. (2013). Impact of knowledge management strategies on organizational performance in the hospitality industry of Zimbabwe. *Public Administration Research*, *2*(1), 76.

Mahdi, O. R., Nassar, I. A., & Almsafir, M. K. (2019). Knowledge management processes and sustainable competitive advantage: An empirical examination in private universities. *Journal of Business Research*, *94*(1), 320-334.

Mahfouz E. & Tadro T (2015). Knowledge-Economy. Retrieved from http://www.agsiw.org/wp-content/uploads/2015/07 _Rev1.pdf

Majchrzak, A., More, P.H.B. & Faraj, S. (2012). Transcending knowledge differences in cross-functional teams, *Organization Science*. 23(4), 951-970.

Mäki-Opas, J., Koponen, P., & Tolonen, H. (2013). 5.4 Waist circumference. *EHES MANUAL*, 61.

Malek Abdul Malek, M.M., & Bakar, H.A. (2020). Workplace Mentoring and Leader-Member Dyadic Communication in Malaysia. Kumar, P. &

Budhwar, P. (ed.) *Mentorship-driven Talent Management,* Emerald Publishing Limited, Bingley, pp. 127-146.

Mani, D., Mubarak, S., & Choo, K. K. R. (2014, August). Understanding the information security awareness process in real estate organizations using the SECI model. In *20th Americas Conference on Information Systems (AMCIS 2014)* (pp. 7-10).

Manlio, D. G., Maria, R., & Della, P., (2016). The impact of IT-based knowledge management systems on internal venturing and innovation: a structural equation modelling approach to corporate performance. *Journal of Knowledge Management. 20*(3), 484 – 498.

Marco, B., Eleonora, D. M., & Roberto, G. (2012). Explicit-oriented knowledge management strategy and creativity: knowledge management strategies in KIBS. Journal *of Knowledge Management. 16*(4), 550 – 562.

Marouf, L. (2016). The role of knowledge sharing culture in business performance. *VINE Journal of Information and Knowledge Management Systems. 2*(1), 76-78.

Marques Junior, E., Gobbo, J.A., Fukunaga, F., Cerchione, R. & Centobelli, P. (2020). "Use of knowledge management systems: analysis of the strategies of Brazilian small and medium enterprises", *Journal of Knowledge Management, 24*(2), 369-394.

Marques, J.M.R., La Falce, J.L., Marques, F.M.F.R., De Muylder, C.F. & Silva, J.T.M. (2019). "The relationship between organizational commitment, knowledge transfer and knowledge management maturity", *Journal of Knowledge Management, 23*(3), 489-507.

Martínez-Costa, M., Jimenez-Jimenez, D., & del Pilar Castro-del-Rosario, Y. (2018). The performance implications of the UNE 166.000 standardised innovation management system. *European Journal of Innovation Management. 70*(2), 308-335

Massingham, P.R. (2018). "Measuring the impact of knowledge loss: a longitudinal study". *Journal of Knowledge Management, 22*(4), 721-758.

Massis, B. (2015). Hiring for attitude and training for skill in the library. *New Library World*.

McIver, D., Lengnick-Hall, C.A., Lengnick-Hall, M.L. & Ramachandran, I. (2013). Understanding work and knowledge management from a knowledge-in-practice perspective, *Academy of Management Review*. *38*(4), 597-620.

Meerkerk, I. Van & Edelenbos, J. (2018). Facilitating conditions for boundary-spanning behaviour in governance networks, *Public Management Review, Routledge, 20*(4), 503-524.

Mekonnen, W., & Azaj, E. (2020). The Impact of Strategic Human Resource Management

Michael, A., & Stephen, T. (2014). *Armstrong's Hand Book of Human Resource Management Practice.* 13th edition. London, Philadephia. Kogan Page

Michelle, L., & Pramila, R. (2015). A comparative perspective of knowledge management via social media: India and China, *The Learning Organization*, *22*(2), 93 – 114

Migdadi, M. (2021), "Knowledge management, customer relationship management and innovation capabilities", *Journal of Business and Industrial Marketing*, 36(1), 111-124.

Miles, M. B., Huberman, A. M., Saldanã, J. (2020). Qualitative data analysis: *A methods sourcebook* (4th ed.). Sage.

Milton, N. J. (2015). *Designing a successful KM strategy: A guide for the knowledge management professional*. Information Today, Incorporated.

Minbaeva, D. & Santangelo, G.D. (2018). Boundary-spanners and intra-MNC knowledge sharing: the roles of controlled motivation and immediate organizational context", *Global Strategy Journal, 8*(2), 220-241.

Mirzaie, M., Javanmard, H.A., & Hasankhani, M.R. (2019). Impact of knowledge management process on human capital improvement in Islamic Consultative Assembly. *Knowl. Manag. Res. Pr. 17*, 316–327.

Mohammed, A., & Sanda, J. K. (2016). Influencing dynamics of culture and employee factors on retail banks' performances in a developing country context, *Management Research Review. 39*(5), 599 – 628.

Montana, P. J., Charnov H., & Bruce H, (2008). *Management* - 4th edition; –Barron's Educational Series, Inc.

Monteiro, S., & Pais, L. (2014). Knowledge management and HRM–theoretical and empirical links, in Vivas, C. and Sequeira, P. (Eds), *Proceedings of the 15th European Conference on Knowledge Management in Santarém, Santarém, Portugal*, 2014, Academic Conferences and Publishing *International, Santarém*, pp. 700-708.

Mousa, S. K., & Othman, M. (2020). The impact of green human resource management practices on sustainable performance in healthcare organisations: A conceptual framework. *Journal of Cleaner Production*, *24*(3), 118-595.

Mugenda O., & Mugenda, (2013). Research methods: Quantitative and Qualitative approaches. Analia Manriquiz (2011), *Citizen.*

Mugenda, O., & Mugenda, A. (2012). *Research Methods; Quantitative and qualitative approaches*. Nairobi: Acts press.

Mugenda, O. M., & Mugenda, A. G. (2018) Research Methods: Quantitative and Qualitative Approaches: Nairobi. *African Centre for Technology Studies*.

Muwardi, D., Saide, S., Eko Indrajit, R., Iqbal, M., Siti Astuti, E. & Herzavina, H. (2020), Intangible resources and institution performance: the concern of intellectual capital, employee performance, job satisfaction, and its impact on organization performance. *International Journal of Innovation Management, 24*(5), 1-21.

Mwituria, S.M. (2012). *Quantitative and Qualitative Research methods*. Nairobi: Frajopa printers

Myers, M. D. (2013). *Qualitative Research in business and management.UK. Sage.*

Na-Nan, K., Chaiprasit, K. & Pukkeeree, P. (2018). Factor analysis-validated comprehensive employee job performance scale. *International Journal of Quality and Reliability Management, 35*(10), 2436-2449

NATO Communications and Information Agency (2019b), "Knowledge management programme spurs increased sharing amongst staff in 2019", NATO Communications and Information Agency, available at: www.ncia.nato.int/about-us/newsroom/knowledge-management-programme-spursincreased-sharing-amongst-staff-in-2019.html

Ndiege, J. R. A., & Wamuyu, P. K. (2019). Knowledge management practices and systems in county governments in developing countries: Perspectives from selected counties in Kenya. *VINE Journal of Information and Knowledge Management Systems. 6*(9), 47-58.

Ngui, T. K. (2015). *Effect of human resource management strategies on performance of commercial banks in Kenya* (Doctoral dissertation).

Nguyen, V.T. & Pham, T.A. (2017). Knowledge management strategies, imitation, and innovation: an empirical study of Vietnamese firms. *Organizational Learning in Asia, 7*(1) 85-108.

Nieves L., Díaz-Díaz, P., & Saá Pérez, (2014). The interaction between external and internal knowledge sources: an open innovation view, *Journal of Knowledge Management*, *18*(2), 430-446.

Nilsen, P. (2010). Praktiknarainnovationergenom integration avpraktik ochforskningsbaseradkunskap, in Nilsen, P. (Ed.), *Implementation – teori*ochtillampningihalso- ochsjukvard, Studentlitteratur, Lund, pp. 125-44.

Nonaka, I. & Takeuchi, H. (1995). *The knowledge creating company: how Japanese organizations create the dynamics of innovation*. New York: Oxford University Press

Nonaka, I. (1990). *Management of Knowledge Creation*. Tokyo: Nihon Keizai Shinbun-sha.

Nonaka, I., Toyama, R. & Konno, N. (2001). SECI, *Ba and Leadership: a Unified Model of Dynamic Knowledge Creation. In Managing Industrial Knowledge*. Ed. IkujiroNonaka and David Teece. London: Sage.

Nonaka, I., Toyama, R. & Nagata, A. (2000). A firm as a knowledge creating entity: a new perspective on the theory of the firm, *Industrial and Corporate Change*. *9*(1), 1-21

North, K. & Kumta, G. (2018). Knowledge Management: Value Creation through Organizational Learning, Springer, Cham

Novas, J. C., Alves, M. C., & Sousa, A. (2015). *Management accounting systems, intellectual capital and performance: an integrated approach*, XXV Jornadas Hispano Lusas de Gestión Científica. Ourense.1 CD-ROM.

Nyaga, P. M., & Bett, S. (2018). Knowledge management practices and performance of small and medium enterprises in Nairobi City County, Kenya. *International Academic Journal of Human Resource and Business Administration*, *3*(1), 451-475.

Obeidat, B.Y., Tarhini, A., Aqqad, N.O. & Masa'deh, R. (2017). "The impact of intellectual capital on innovation via the mediating role of knowledge management: a structural equation modeling approach", *International Journal of Knowledge Management Studies, 8*(3), 273-298. OECD (2005).

O'brien, R.M. A (2007). Caution Regarding Rules of Thumb for Variance Inflation Factors. *Qual Quant, 41*, 673–690.

Ochieng, J. Muturi, D. & Njihia, S.N. (2015).   The impact of ISO 9001 implementation on organizational performance in Kenya, *The TQM Journal. 27*(6), 761 – 771.

Odhon'g, E. A., & Omolo, J. (2015). Effect of human capital investment on organizational performance of pharmaceutical companies in Kenya. *Global Journal of Human Resource Management, 36*, 1-29.

Olaisen, J., & Revang, O. (2018). Exploring the performance of tacit knowledge: How to make ordinary people deliver extraordinary results in teams. *International Journal of Information Management*, *43*, 295-304.

Olaitan, P. (2020), "Communities of practice in the resettlement of children and young people", *Safer Communities,* 20(1), 12-45.

Olatayo, T.O., Fagoyimbo, I. S., & Adeboye, N.O. (2014). Estimation of the effect of Multicollinearity on the Standard Error for Regression Coefficient. *IOSR Journal of Mathematics, 10*(4), 16-20.

Oliver, R. (1974). Expectancy is the probability that the individual assigns to work effort being followed by a given level of achieved task performance. Expectancy Theory Predictions of Salesmen's Performance. *Journal of Marketing Research, 11*, 243-253.

Omotayo, F. O. (2015). Knowledge Management as an important tool in Organisational Management: A Review of Literature. *Library Philosophy and Practice*, *1*(2015), 1-23.

Onen, D. (2016). Appropriate conceptualisation: The foundation of any solid quantitative research. *Electronic Journal of Business Research Methods*, *14*(1), 28-38.

Oparaocha, G. O. (2016). Towards building internal social network architecture that drives innovation: A social exchange theory perspective. *Journal of Knowledge Management*. *43*(1), 295-304.

Ørberg Jensen, P.D. & Pedersen, T. (2012). Offshoring and international competitiveness: antecedents of offshoring advanced tasks, *Journal of the Academy of Marketing Science*. *40*(2), 313-328.

Osazevbaru, H. O., & Osayande, F. (2022). Impact of Knowledge Management on the Performance of Deposit Money Banks in Nigeria. *Himalayan Journal of Economics and Business Management*, *3*(1), 1-20.

Otuori, O. H. (2013). Influence of exchange rate determinants on the performance of commercial banks in Kenya. *European Journal of Management Sciences and Economic*s, *1*(2), 86-98.

Paavo R., Kaisa H. H., & SalojärviLiisa-MaijaSainio S. S., (2013). Gone fishing for knowledge? *Baltic Journal of Management*, *8*(3), 328 – 348.

Padova, A. & Scarso, E. (2012). Managing large amounts of knowledge objects: cognitive and organizationalproblems, *Knowledge Management Research & Practice*, *10*(3), 287-295.

Panahi, S., Watson, J. & Partridge, H. (2013). Towards tacit knowledge sharing over social web tools, *Journal of Knowledge Management*. *17*(3), 379-397.

Parjanen, S. M., Saunila, M., Kallio, A., & Harmaakorpi, V. (2020). An effective employee-driven innovation (EDI) manual process supporting innovativeness. *European Journal of Innovation Management*. *70*(2), 308-335.

Patil, S.K. & Kant, R. (2012). Organizational culture a HR strategy for successful knowledge management, *Strategic HR Review, 11*(6), 322-328.

Patricia B. M., Brekelmans L. N., & Robert, J. S., (2012). Communities of practice in the school workplace, *Journal of Educational Administration, 50*(3), 346 – 364

Paul O, (2012). Developing a corporate knowledge management strategy, *Journal of Knowledge Management, 16*(6) 862 -878.

Pedro S., Juan-G & Cegarra-N, (2016). New ICTs for Knowledge Management in Organizations, *Journal of Knowledge Management,* 20(3), 417 – 422

Peluso, A.M., Innocenti, L. & Pilati, M. (2017). Pay is not everything differential effects of monetary and non-monetary rewards on employees' attitudes and behaviours. *Evidence-Based HRM*: *a Global Forum for Empirical Scholarship, 5*(3), 311-327.

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

Per N., Gunilla N & Per-Erik E, (2012). Integrating research-based and practice-based knowledge through workplace reflection*, Journal of Workplace Learning,* 24(6), 403 – 415

Perry, D. & Heather, M. (2016). Organizational transformation through improved employee engagement – How to use effective methodologies to improve business productivity and expand market share*, Strategic HR Review*, *15*(1), 1-20.

Peter, M, (2014). An evaluation of knowledge management tools: Part 1 – managing knowledge resources, *Journal of Knowledge Management*, 18(6), 1075 - 1100

Peteraf, M., Di Stefano, G. & Verona, G. (2013). The elephant in the room of dynamic capabilities: Bringing two diverging conversations together, *Strategic Management Journal*, *34*(12), 1389–1410.

Pfeffer, J (1998). *The Human Equation*, Harvard Business School Press, Boston, MA

Pickard, A. J. (2013). *Research methods in information*. Facet publishing.

Pla-Barber, J., Villar, C., & León-Darder, F. (2014). Augmenting versus exploiting entry modes in soft services: Reconsidering the role of experiential knowledge. *International Marketing Review*. 34(12), 1389–1410.

Ployhart R.,E. (2012). The psychology of competitive advantage: an adjacent possibility. Ind. Organ. *Psychol*.5, 62–8

Polit, D. F. (2017). Clinical significance in nursing research: A discussion and descriptive analysis. *International Journal of Nursing Studies*, *73*, 17-23.

Pratima, V., Vimal, K., Ankesh, M., & Sung, C. (2021). Addressing strategic human resource management practices for TQM: the case of an Indian tire manufacturing company. The TQM Journal, 34(1), 29-69.

Prayudi dan R. Daud (2013). "Pengaruh Profitabilitas, Risiko Keuangan, Nilai Perusahaan, dan Struktur Kepemilikan Terhadap Praktik Pemerataan Laba (Income Smoothing): *Studi Empiris Perusahaan Manufaktur yang Terdaftar di* BEI 2008-2011," *Jurnal FEMASI*, *9*

Pryko, I., Dorfler, V. & Eden, C. (2017). Thinking together: what makes communities of practice work? *Human Relations, 70*(4), 389-409.

Pulles, N.J. & Hartman, P. (2017). Likeability and its effect on outcomes of interpersonal interaction. *Industrial Marketing Management, 66*(1), 56-63.

Qiu H L, (2014). An overview of knowledge management research viewed through the web of science (1993-2012), *Aslib Journal of Information Management*, *66*(4), 424 – 442

Ramadan, B.M., Dahiyat, S.E., Bontis, N. & Al-dalahmeh, M.A. (2017). "Intellectual capital, knowledge management and social capital within the ICT sector in Jordan", *Journal of Intellectual Capital, 18*(2), 437-462.

Ranatunga, R., Priyanath, H.M.S. & Megama, R.G.N. (2020). "Digital literacy, business uncertainty and economic performance: an empirical study of small businesses in Sri Lanka", *Journal of Academic Research in Business and Social Sciences, 10*(5) 50-76.

Ravitch, S. M. & Riggan, M. (2017). *How conceptual frameworks guide research.* 2 nd Edn. Los Angeles, CA: Sage.

Renata B, (2012). Tacit knowledge sharing between IT workers, *Management Research Review*, *36*(1), 89 – 108.

Reuben C., Dieter G., & Bharat K, (2015). Innovation advantage: insourcing engineering, *Strategy & Leadership*, *43*(6), 3 – 5.

Rhemananda, H., Simbolon, D.R. & Fachrunnisa, O. (2020). Blockchain technology to support employee recruitment and selection in industrial revolution 4.0. *Blockchain Technology to Support Employee Recruitment and Selection in Industrial Revolution 4.0, International Conference on Smart Computing and Cyber Security: Strategic Foresight, Security Challenges and Innovation, Springer*, p. 305.

Ricardo Vinícius Dias Jordão, Jorge Casas Novas, (2018). Knowledge management and intellectual capital in networks of small and medium-sized enterprises. *Journal of Intellectual Capital*, *4*(11), 201-212.

Ricceri, F. (2008). Intellectual Capital and Knowledge Management: *Strategic Management of Knowledge Resources,* Routledge, New York, NY.

Riratanaphong, C. (2014). "Performance management of workplace change in two different cultural contexts", PhD thesis, Delft University of Technology, Delft

Rohit K, (2015). Knowledge Management Approach and Strategies for College Libraries. *International Journal of New Innovations in Engineering and Technology. 3*(4).

Rossi, C., Cricelli, L., Grimaldi, M. & Greco, M. (2016). The strategic assessment of intellectual capital assets: an application within Terradue Srl. *Journal of Business Research*, *69*(5), 1598-1603.

Rothberg, H.N. & Erickson, G.S. (2017). "Big data systems: knowledge transfer or intelligence insights?", *Journal of Knowledge Management*, *21*(1), 92-112,

Roumpi, D., Magrizos, S., & Nicolopoulou, K. (2020). Virtuous circle: Human capital and human resource management in social enterprises. *Human resource management*, *59*(5), 401-421.

Rowe, A. (2015). Exploring a spatial-temporal understanding of organizational learning, *Management Learning*, *46*(1), 105-124.

Rowley, J. (2014). Designing and using research questionnaires, *Management Research Review, 37*(3), 308-330.

Rubin, H. J., & Rubin, I. S. (2011). *Qualitative interviewing: The art of hearing data*. sage.

Safaricom (2016). Annual Report Retrieved from https://www.safaricom.co.ke/ images/Downloads/Resources_Downloads/ Annual_Report.pdf:

Safaricom Limited Annual Report for the Year Ended 31March 2013. Retrieved from http://www.safaricom.co.ke/annualreport2013/Pdf_documents/ Strategic_reviews/Retain_&_reward_our_loyal_customer_base.pdf

Sahile, S. W. G., Tarus, D. K., & Cheruiyot, T. K. (2015). Market structure-performance hypothesis in Kenyan banking industry. *International Journal of Emerging Markets*.

Saif-Alyousfi, A.Y.H., Saha, A. & Md-Rus, R. (2020a). "The impact of bank competition and concentration on bank risk-taking behavior and stability: evidence from GCC countries", *The North American Journal of Economics and Finance,* 51 (1) 1-50.

Sajjad M J., & Zuopeng Z., (2014). Knowledge management strategy and organizational culture. *Journal of the Operational Research Society.* 65 (10) 1490-1500.

Salmelin, B. (2013). The horizon 2020 framework and open innovation ecosystems, *Journal of Innovation Management,*1(2)4-9.

Santoro, G. & Usai, A. (2018). "Knowledge exploration and ICT knowledge exploitation through human resource management. A study on Italian firms", *Management Research Review,* 41 (6) 701-715.

Saunders, M., Lewis, Philip & Thornhill, A. (2007). Research methods. *Business Students 4th edition Pearson Education Limited, England*.

Scheepers, R., Venkitachalam, K. & Gibbs, M.R. (2004). Knowledge strategy in organizations: Refining the model of Hansen, Nohria and. *Journal of Strategic Information Systems*13 (3): 201–222.

Schotter, A.P., Mudambi, R., Doz, Y.L. & Gaur, A. (2017). "Boundary-spanning in global organizations", *Journal of Management Studies,* 54 (4) 403-421.

Seeta Gupta, A., & Uday, B. (2016). Doing business in India: cross-cultural issues in managing human resources, *Cross Cultural & Strategic Management*,23(1)184-204.

Sekaran, U. & Bougie, R. (2016). *Research Method for Business, a Skill Building Approach,* Fifth Edition, John Wiley and Sons. New Jersey

Shahzad, M., (2016). Exploring the influence of knowledge management process on corporate sustainable performance through green innovation. *Journal of Knowledge Management*. *70*(2), 308-335.

Shan, Y. & Li, Z. (2015). "An evolutionary game of knowledge sharing in construction supply chain facing construction industrialization", *Journal of Engineering Management,* 29 (2) 1-5.

Shehata, G. M. (2015). Leveraging organizational performance via knowledge management systems platforms in emerging economies: Evidence from the Egyptian Information and Communication Technology (ICT) industry. *Vine*, *45*(2), 239-278.

Shepherd, N.G. & Rudd, J.M. (2014). The influence of context on the strategic decision-making process: a review of the literature, *International Journal of Management Reviews*, 16 (3), 340-364.

Sherine F., Hossam M., Abu E., Shatha M., Obeidat M., & Al Nahyan, (2016). HRM practices and organizational performance in the UAE banking sector: The mediating role of organizational innovation*, International Journal of Productivity and Performance Management,* 65 (6), 773-791.

Siahtiri, V., Heirati, N. & O'Cass, A. (2020). "Unlocking solution provision competence in knowledge-intensive business service firms", *Industrial Marketing Management,* 87 (1) 117-127.

Siengthai, S. & Pila-Ngarm, P. (2016). "The interaction effect of job redesign and job satisfaction on employee performance", Evidence-Based HRM: *a Global Forum for Empirical Scholarship,* 4 (2) 162-180.

Siengthai, S., Pila-Ngarm, P. & Sorakraikitikul, M. (2020). How Mentors and Protégés Perceive and Practice mentoring in Thailand. Kumar, P. & Budhwar, P. (ed.) *Mentorship- driven Talent Management, 1*(1), 67-83.

Sigala, M. (2012). Social networks and customer involvement in new service development (NSD): the case of www.mystarbucksidea.com, *International Journal of Contemporary Hospitality* Management, *24*(7), 966-90.

Singla, H.K., Shrivas, A. & Sharma, A. (2020). "Identification of knowledge assets in construction projects and their impact on project performance", *Journal of Intellectual Capital, 4*(2), 162-180.

Sirén, C. (2012). Unmasking the capability of strategic learning: a validation study, *The Learning Organization*, 19 (6), 497-517.

Solimun & Fernandes (2017). Investigation the mediating variable: what is necessary? case study in management research. *International Journal of Law and Management, 59*(6), 1-20

Solomon W. Giorgis S., Daniel K. T., & Thomas K. C. (2015). Market structure-performance hypothesis in Kenyan banking industry, International *Journal of Emerging Markets, 10*(4), 697 – 710.

Song, M., Wang, J., Wang, S. & Zhao, D. (2019). Knowledge accumulation, development potential and efficiency evaluation: an example using the Hainan free trade zone", *Journal of Knowledge Management*, *23*(9), 1673-1690.

Song, S. & Sun, J. (2018). "Exploring effective work unit knowledge management (KM): roles of network, task, and KM strategies", *Journal of Knowledge Management, 22*(7), 1614-1636.

Stallkamp, M. & Schotter, A.P. (2019). "Platforms without borders? The international strategies of digital platform firms", *Global Strategy Journal*,

Stangor, C. (2011). *Research Methods for the Behavioural Sciences* 4th Edition, Belmont: Wadsworth, Cengage Learning.

Stefan S. & Jorge P, (2016). How does the employee cross-training lean tool affect the knowledge transfer in product development processes? *VINE Journal of Information and Knowledge Management Systems, 46*(3), 371 – 385.

Stojanovic-Aleksic, V., Eric Nielsen, J. & Boškovic, A. (2019). "Organizational prerequisites for knowledge creation and sharing: empirical evidence from Serbia", *Journal of Knowledge Management,* 23 (8) 1543-1565.

Subba R, (2002). *Personnel and Human Resource Management – Text and cases*; (*2000*) – Himalaya Publishing House

Sue Greener., Joe Martelli & Bookboon C. (2015). *An introduction to Business Research methods.*(2nd ed).

Sukhdev S., Jasvinder S, Mahesh J, & Monika K, (2016). Measuring intellectual capital performance of Indian banks: A public and private sector comparison. *Managerial Finance*, *42*(7), 635-655.

Sveiby, K. (2001). A knowledge-based theory of the firm to guide strategy formulation, *Journal of Intellectual Capital, 2*(4), 344-58.

Takeuchi, R., Lepak, D.P., Wang, H. & Takeuchi, K. (2007). "An empirical examination of the mechanisms mediating between high-performance work systems and the performance of Japanese organizations", *Journal of Applied Psychology*, 92(4), 1069-1083.

Tanya S. B., & Sotirios P, (2013). Developing a dominant logic of strategic innovation, *Management Research Review*, *36*(10), 924 – 938.

Tat H C, Yet M. L., Boon L. C., & Teck H. Lee, (2016). Determinants of knowledge management systems success in the banking industry. *VINE: Journal of Information and Knowledge Management Systems*, 46 (1) 2-20.

Taylor, J. & Aldridge, J. (2017). "Exploring the rewards and challenges of paediatric palliative care work–a qualitative study of a multi-disciplinary children's hospice care team*", BMC Palliative Care, 16*(1), 1-11.

Teece, D. & Pisano, G. (1994). The dynamic capabilities of firms: an introduction, *Industrial and Corporate Change*, *3*(3), 537-56.

Teece, D..J., Pisano, G. & Shuen, A. (1997). Dynamic capabilities and strategic management, *Strategic Management Journal*, *18*(7), 509-33.

Teeter, P., & Sandberg J. (2016). Constraining or Enabling Green Capability Development? How Policy Uncertainty Affects Organizational Responses to Flexible Environmental Regulations. *British Journal of Management, 4*(3), 234-345.

Tharusha N. & Gooneratne Z. H. (2013). Management control research in the banking sector. A critical review and directions for future research, *Qualitative Research in Accounting & Management, 10*(2), 144 – 171.

The Wiley-Blackwell Encyclopedia of Consumption and Consumer Studies (2015). *Intellectual Property.* Retrieved from https: //www.researchgate.net /profile /Marcus_Holgersson/publication/271853325_Intellectual_Property/links/54d 53bbe0cf2970e4e64808c.pdf.

Think Business Africa.com (2017). *Tariff-survey-launch-banks-register-decline-in-annual-cost-of-banking-overall.* Retrieved from http://www.think businessafrica.com.

Thomas K. N., (2014). *Effect of Human Resource Management Strategies on The Performance of Commercial Banks in Kenya*. Published PhD. Theses, Jomo Kenyatta University of Agriculture and Technology.

Thongpapanl, N., Kaciak, E. & Welsh, D.H.B. (2018). Growing and aging of entrepreneurial firms: Implications for job rotation and joint reward.

International Journal of Entrepreneurial Behavior & amp; *Research*, *24*(6), 1087-1103.

Thuo, R., Senaji, T., & Kirimi, E. (2018). Influence of strategic human resource management (SHRM) practices on employee productivity: A case of the energy sector in Kenya. International Academic *Journal of Human Resource and Business Administration, 3*(2), 430-451.

Tippmann, E., Sharkey Scott, P. & Parker, A. (2017). Boundary capabilities in MNCs: knowledge transformation for creative solution development", *Journal of Management Studies, 54*(4), 455-482.

Todd A., Little A. & Deokar V., (2016). Understanding knowledge creation in the context of knowledge-intensive business processes. *Journal of Knowledge Management, 20*(5), 858 – 879.

Tolera, D. (2018). "Effects of employees commitment on organizational performance at arjo didessa sugar factory", *African Journal of Business Management, 12*(9), 252-257.

Tootell, A., Kyriazis, E., Billsberry, J., Ambrosini, V., Garrett-Jones, S. & Wallace, G. (2021). "Knowledge creation in complex inter-organizational arrangements: understanding the barriers and enablers of university-industry knowledge creation in science-based cooperation", *Journal of Knowledge Management,* 25(4), 743-769.

Torabi, F., & El-Den, J. (2017). The impact of knowledge management on organizational productivity: A case study on Koosar Bank of Iran. *Procedia Computer Science, 124*, 300-310.

Tripathi, V.R., Popli, M., Ghulyani, S., Desai, S. & Gaur, A. (2021). Knowledge creation practices at organizational boundaries: the role of ICT in sickle-cell care for tribal communities", Journal of Knowledge Management, *25*(3), 595-617.

Uysal, G. (2019). 3rd definition of SHRM: HR systems approach. *Management Studies, 7*(5), 496-501.

Uysal, G. (2020). Theory of SHRM: Strategy and Performance. *Bartın Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, *11*(21), 252-263.

Uzkurt, C., Kumar, R., & Ensari, N. (2013). Assessing organizational readiness for innovation: An exploratory study on organizational characteristics of innovativeness. *International Journal of Innovation and Technology Management*, *10*(04), 1350018.

Vahs, D. & Brem, A. (2013). *Innovations Management. Von der Ideezurerfolgreichen Vermarktung*, Schäffer-Poeschel, Stuttgart. *Journal of Knowledge Management, 20*(5), 858 – 879.

Venkatesh, V., Morris, M.G., Davis, G.B., & Davis, F. D. (2003). User acceptance of information technology: toward a unified view. *MIS Quarterly*, *27*(3), 425-478.

Venkitachalam, K. & Busch, P. (2012). Tacit knowledge: review and possible research directions, *Journal of Knowledge Management*, *16*(2), 357-372

Verbano, C. & Crema, M. (2016). Linking technology innovation strategy, intellectual capital and technology innovation performance in manufacturing SMEs, *Technology Analysis & Strategic Management*, 28 (5), 524-540.

Verhoef, P.C., Broekhuizen, T., Bart, Y., Bhattacharya, A., Qi Dong, J., Fabian, N. & Haenlein, M. (2021). Digital transformation: a multidisciplinary reflection and research agenda. *Journal of Business Research, 122*(July 2018), 889-901.

Victor, C. L., Samuel, A. & Eric K. B. (2013). *International Journal of business and Science.* Retrieved from http://search.proquest.com/openview/ d96d5f406de9871685dbfdbda0b7534e/1?pq-origsite=gscholar&cbl=646295 accessed2017-04-06 09:55:44

Victor, E. & Alberto, P. (2016). Business lending and bank profitability in the UK, *Studies in Economics and Finance*, *33*(2), 302 – 319

Von Krogh, G., & Roos, J. (1995). A perspective on knowledge, competence and strategy. *Personnel review*.

Voordt, T.J.M. & Jensen, P.A. (2018). "Measurement and benchmarking of workplace performance: Key issues in value adding management", *Journal of Corporate Real Estate,* 20(3), 177-195.

Vrontis, D. & Christofi, M. (2020). Contemporary issues in management and marketing research. *Business Perspectives and Research, 8*(1), 1-3

Waheed, A., Miao, X., Waheed, S., Ahmad, N. & Majeed, A. (2019). "How new HRM practices, organizational innovation, and innovative climate affect the innovation performance in the IT industry: a moderated-mediation analysis", *Sustainability, 11*(3), 621.

Wang, T. & Zatzick, C.D. (2019). "Human capital acquisition and organizational innovation: a temporal perspective", *Academy of Management Journal, 62*(1), pp. 99-116.

Wang, Y. & Lin, J. (2013). Empirical research on knowledge management orientation and organizational performance: the mediating role of organizational innovation. *African Journal of Business Management, 7*(8), 604-612.

Wang, Z., Wang, N., Cao, J., & Ye, X. (2016). The impact of intellectual capital–knowledge management strategy fit on firm performance. *Management decision*. *11*(3), 621.

Wario G. (2012). *The role of HRM in intra firm operationalization of tacit knowledge in Kenyan state corporations.* Published PhD. Theses, Jomo Kenyatta University of Agriculture and Technology.

Wenger-Trayner, E. & Wenger-Trayner, B. (2015). *Communities of Practice: A Brief Introduction,* University of OR, Scholars Bank. Retrieved from https://scholarsbank.uoregon.edu/xmlui/ bitstream/handle/1794/11736/A%20 brief%20introduction%20to%20CoP.pdf

Wen-Hsiang L, (2013). Interoperability of implicit and explicit firm-level knowledge accumulation, *Journal of Strategy and Management, 6*(3), 229 – 241

Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management*. J, *5*, 171-180.

West, J. & Gallagher, S. (2006). Challenges of open innovation: The paradox of firm investment in open-source software. *R and D Management*. *36*(3): 319.

Williamson P. J, & De Meyer (2012). An Ecosystem Advantage: How to Successfully Harness the Power of Partners. *California Management Review 55*, 24-46.

Wiwoho, G., Suroso, A. & Wulandari, S.Z. (2020). Linking adaptive capability, product innovation and marketing performance: results from Indonesian SMEs. *Management Science Letters, 10*(10), 2379-2384.

World Bank, (2016). *The World Bank Annual Report 2016*. Washington, DC. © World Bank. https://openknowledge.worldbank.org/handle/10986/24985 License: CC BY 3.0 IGO." World Bank (2016). Kenya Over View. Retrieved from http://www.worldbank.org/en/country/kenya/overview.

World Bank's Knowledge economic index (World Bank, 2012).

Wright, P.M., Nyberg, A.J. & Ployhart, R.E. (2018). A research revolution in SHRM: new challenges and new research directions. *Research in Personnel and Human Resources Management, 36*, 141-161.

Xiaotian T. Z, & Yong W, (2014). Production efficiency of Chinese banks: a revisit, *Managerial Finance*, *40*(10), 969-986.

Xiu-Hao D., Heng L., & Yongtao S, (2013). Are internal knowledge transfer strategies double-edged swords?, *Journal of Knowledge Management*, *17*(1), 69 – 86

Xu, F. (2013). The Formation and Development of Ikujiro Nonaka's Knowledge Creation Theory. In G. von Krogh et al. (Eds.), *Towards Organizational Knowledge: The Pioneering Work of Ikujiro Nonaka* (pp. 60-76). Basingstoke, UK: Palgrave Macmillan.

Yakowicz, W. (2014). *How paying it forward can help your company,* Retrieved from http://www.inc.com/will-yakowicz/how-pay-it-forward-can-help-your-company.html

Yan, L. & Wang, J, (2017). Alcatel-Lucent falls, Huawei ascends: new product development makes the difference, *Journal of Business Strategy, 38*(1), 22-30.

Yang, Y.C. (2012). High-involvement human resource practices, affective commitment, and organizational citizenship. *The Service Industries Journal*, *32*(8), 1209-1227.

Yazdanfar, D. (2013). Profitability determinants among micro firms: evidence from Swedish data, *International Journal of Managerial Finance*, *9*(2), 151-160.

Yevgen B. & Veit W. (2017). Enterprise risk management: a capability-based perspective, *The Journal of Risk Finance*, *18*(3), 234-342.

Yi, S., Stieglitz, N., & Knudsen, T. (2018). Differentiation and integration in organizational learning: A garbage can model. In *Organization Design*. Emerald Publishing Limited.

Yong, A. G., & Pearce, S. (2013). A beginner's guide to factor analysis: Focusing on exploratory factor analysis. *Tutorials in quantitative methods for psychology*, *9*(2), 79-94.

Yoo, S., Jeong, S., Song, J.H. & Bae, S. (2021). "Transformational leadership and knowledge creation practices in Korean and US schools: knowledge assets as mediators", *Knowledge Management Research and Practice, 19*(2), 263-275.

Yoo, S., JooI, B. K. B., & Noh, J. H. (2022). Team emergent states and team effectiveness: the roles of inclusive leadership and knowledge sharing. *Journal of Organizational Effectiveness: People and Performance*.

Yoon, S.K., Kim, J.H., Park, J.E., Kim, C.J. & Song, J.H. (2020). "Creativity and knowledge creation: the moderated mediating effect of perceived organizational support on psychological ownership", *European Journal of Training and Development, 44*(6/7), 743-760.

Yoosuf C. K., Kathleen O., Ayesha A., Blooshi A., Ali B., Al-Shouq B., Hussain M., Fadaaq F., & Galal A, (2013). Knowledge management in Islamic and conventional banks in the United Arab Emirates, *Management Research Review*, *36*(4), 388 – 399.

Yousif, N. B. A., (2013). Knowledge management in non-governmental organizations (NGOs). *Administratie si Management Public*, *35*, 90-108.

Yuan, C., Wang, Y., Huang, W. & Zhu, Y. (2019). Can coaching leadership encourage subordinates to speak up? The dual perspective of cognition-affection. *Leadership and Organization Development Journal, 40*(4), 485-498.

Yusoff, Y. M., Nejati, M., Kee, D. M. H., & Amran, A. (2020). Linking green human resource management practices to environmental performance in hotel industry. *Global Business Review*, *21*(3), 663-680.

Zahidul I., Sajjid M. & Jasimuddin I H, (2015). Organizational culture, structure, technology infrastructure and knowledge sharing, *VINE*. *45*(1), 67 – 885.

Zaim, H., Muhammed, S., & Tarim, M. (2019). Relationship between knowledge management processes and performance: critical role of knowledge utilization in organizations. *Knowl. Manag. Res. Pract. 17*, 24–38.

Zelaya-Zamora, J. & Senoo, D. (2013). Synthesizing seeming incompatibilities to foster knowledge creation and innovation. *Journal of Knowledge Management*, *17*(1), 106-122.

Zhang, X.A., Liao, H., Li, N. & Colbert, A.E. (2020). Playing it safe for my family: exploring the dual effects of family motivation on employee productivity and creativity. *Academy of Management Journal*, *63*(6), 1923-1950.

Zhang, Z. & Wang, Z., (2014). Measuring knowledge management performance in organizations: an integrative framework of balanced scorecard and fuzzy evaluation. *Information*, *7*(2), 29.

Zhao, M., & Rabiei, K. (2022). Feasibility of implementing the human resource payroll management system based on cloud computing. *Kybernetes*.

Zhu, J., He, Q., Yang, D., Luo, L. & Ding, L. (2016). "Research on the Influence mechanism of inter organizational knowledge sharing of construction projects on project performance", *Journal of Engineering Management, 30*(6), 89-94.

APPENDICES

Appendix I: Introduction Letter

Jane Njeri Njenga

REG NO: HD412-C004-0665/15

Jomo Kenyatta University of Agriculture and Technology (JKUAT)

P.O. Box 62000-00200 City Square

NAIROBI

Dear Respondent**,**

RE: ACADEMIC RESEARCH PROJECT

I am a post graduate student at Jomo Kenyatta University of Agriculture and Technology (JKUAT) pursuing a PhD degree in Human Resource Management. One of the requirements for the fulfilment for the award of the degree is to write a dissertation in the area of my study. The title of my research is *Knowledge Management Strategies and Performance of Commercial Banks in Kenya.* This relationship is moderated by the role of Strategic Human Resource Practices. A questionnaire has been designed and attached to guide the study.

You have been randomly selected to participate in this study by filling the questionnaire to enable the collection of the require data. Collected information will be restricted for academic research only and shall be treated with utmost confidentiality. The name of the respondent will not be disclosed to any party whatsoever.

Thank you for your co-operation.

Yours faithfully,

Jane Njeri Njenga

Reg No: HD412-C004-0665/15

Appendix II: Introductory Letter from the University

JOMO KENYATTA UNIVERSITY
OF
AGRICULTURE AND TECHNOLOGY
P.O. BOX 62000-00200 NAIROBI, KENYA. TELEPHONE. (020) – 221306

Nairobi CBD Campus

Entrepreneurship & Procurement Department

Date: 2nd March, 2018

Ref: JKU/6/EPD/17a
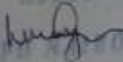
To Whom It May Concern;

SUBJECT: JANE NJERI NJENGA - HD412-C004- 0665/2015

This is to introduce to you **Ms Jane Njeri Njenga** who is a student pursuing Doctor of Philosophy (PhD) Human Resource Management Programme at Jomo Kenyatta University of Agriculture and Technology, Nairobi CBD Campus and has completed her coursework.

The purpose of this letter is to request you to give the student the necessary support and assistance to enable her obtain necessary data for his research thesis. Please note that the information given is purely for academic purpose and will be treated with strict confidence.

Thank you

Yours faithfully,

Mary Kamaara (Ph.D)
ASSOCIATE CHAIRMAN, EPD
/mn

JKUAT is ISO 9001:2008 and 14001:2004 Certified.
Setting Trends in Higher Education, Research and Innovation

Appendix III: Questionnaire

Introduction

Fill the questionnaire in the spaces provided or tick as appropriate. All the information provided will be considered as private and confidential and will be used for the purpose of this research only.

Declaration by the respondent:

I hereby agree to participate in the completion of this questionnaire.

Date ……………………………………

Back Ground

The questionnaire comprised of three main sections (a sample of the questionnaire is attached as an Appendix). In Section A, sought to collect respondent demographic information. Section B included a self-description and solicited information from the management and employees in different operational departments and units in   the 42 banks in Kenya.

Section A: General Information

1.1 Personal Details

1. Name of Bank (Optional)..
2.   Gender (Tick as appropriate):   Male…….   Female………….
3. Age Bracket (tick as appropriate)

No.	Age bracket	Tick as appropriate
i	50 and above	
ii	41-50	
iii	31-40	
iv	21-30	

4. What is your highest level of education

   Diploma [ ]   Degree [ ]

   Masters [ ]   PhD   [ ]

5. Others (specify)………………………………………….

6. How   long   have   you   served   in   your   current
   position?...

1.2 Company Information

7. Number of years in business (a) 1-5   (b) 6-10   (c) 11-15

                                    (d) 16-20   (e) 20 and above

8. Size of the organization? Tick appropriately.

   Less than 300 employees   [ ]

   300 –999 employees   [ ]

   1000-1999 employees   [ ]

   2000-2999 employees   [ ]

   Over 3000 employees   [ ]

Section B: Strategies

This section contains statements regarding the effect of knowledge management strategies on performance.   Kindly respond with the response that matches your opinion.

On a scale of 1-5(where 1 means strongly disagree) and 1 means (strongly agree) express the extent to which you agree or disagree with the following statements.

2.1 Tacit- Oriented Knowledge Management Strategy

The objective of this sub section is to get your feedback on the role of tacit –oriented strategy on performance.

Kindly tick the answer that that reflects your belief.

Scale: 1 = Strongly Disagree; 2 = Disagree; 3 = Undecided; 4 = Agree; 5 = Strongly Agree

Kindly tick the answer that that reflects current condition in your bank

Statements	1	2	3	4	5
It is acknowledged that coaching plays a significant role in knowledge management in this bank.					
This bank encourages employee networks to manage knowledge					
In this bank, job rotation helps to improve performance					
Learning by doing is a common practice in this bank					
Expert knowledge is adequately relied upon in this bank					
Centralization of knowledge has a negative impact in the management of knowledge which is in peoples mind					
Mentoring encourages employees to share their knowledge widely					
This bank encourages employees to share past experiences					
Learning by doing is highly appreciated in this bank					
Employee Discussion forums offer a suitable channel for knowledge management					
This bank recognizes that exit interviews are important sources of knowledge					
Story telling is a common practice in this bank					

2.2.2. Propose other measures that the bank can put in place to manage knowledge in addition to measures stated in the questionnaire

....

…………………………………………………………………………………………

2.2.1 Explicit –Oriented Knowledge Management Strategy

The objective of this sub section is to get your feedback on the role of explict – oriented strategy on performance of commercial banks.

Kindly tick the answer that that reflects your belief.

Scale: 1 = Strongly Disagree; 2 = Disagree; 3 = Undecided; 4 = Agree; 5 = Strongly Agree

Kindly tick the answer that that reflects current condition in your bank

Statements	1	2	3	4	5
Knowledge is codified through formal documents and manuals in this bank					
Explicit–oriented knowledge is enhanced through formal documents and manuals in this bank					
Documentation of employee knowledge is a systematic undertaking in this bank					
Employees are encouraged to share innovation work reports to other members of bank at their request					
In this bank research-based knowledge increases our employees' performance					
Use of integrated IT systems and tools supports knowledge management tools requirements					
Information systems support has a positive effect on knowledge management					
This bank's use technical documents to other members of the bank at their request					
The social media platforms offer the management the opportunity to create structured methods of knowledge management					
In this bank, there has been rising recognition of the significance of employee expertise to the bank's employees' performance					
There has been rising recognition of the significance of patents for the purpose of improving the bank's employees' performance					
Employee data bases are an important source of knowledge in this bank					
The use of standard policies and procedures is highly appreciated					
Overall					

2.2.2 Propose other measures that the bank can put in place to manage knowledge in addition to measures stated in the questionnaire

....

…………………………………………………………………………………………

2.3 Internal-Oriented Knowledge Management Strategy

The objective of this sub section is to get your feedback on the role of internal – oriented knowledge management strategy on performance of commercial banks.

Kindly tick the answer that that reflects your belief.

Scale: 1 = Strongly Disagree; 2 = Disagree; 3 = Undecided; 4 = Agree; 5 = Strongly Agree

Kindly tick the answer that that reflects current condition in your bank

Statements	SD	D	N	A	SA
This bank emphasizes use of knowledge inside the firm					
Knowledge makes this bank's competencies invisible to its external environment, hence enabling it to improve employees' performance					
Team work is recognized as a source of synergy in this bank					
When key users express and exchange their knowledge, competences and skills and, performance improves					
Knowledge exchange is undertaken through informal activities, such as peer coaching or group tasks					
The management encourages informal learning that encourages knowledge management					
In this bank, organizational structure is an important antecedent in creating returns					
The structure is designed for to create room for flexibility rather than rigidity to facilitate knowledge sharing and collaboration within the bank					
Our culture demands that the management focuses on flexibility and less focus on work rules					
In this bank, employees frequently share their experience with other members of the bank					
This bank encourages employees to share manuals, work analysis and methodologies to other members at their request					
Our employees frequently share know-how with other members for the purpose of incremental innovation in human resource processes					

2.3.3. Propose strategies that commercial banks can put in place to manage knowledge in addition to strategies stated in the questionnaire

....

…………………………………………………………………………………………

2.4 External- Oriented Knowledge Management Strategy

The objective of this sub section is to get your feedback on the role of external – oriented strategy on performance of commercial banks.

Kindly tick the answer that that reflects your belief.

Scale: 1 = Strongly Disagree; 2 = Disagree; 3 = Undecided; 4 = Agree; 5 = Strongly Agree

Kindly tick the answer that that reflects current condition in your bank

Statements	SD	D	N	A	SA
In our bank, knowledge acquired from external sources is highly appreciated					
Knowledge acquired from external sources is highly valued in this bank					
This bank encourages R&D collaborations with external HR consultants for human resource incubation					
Human resource business Partnership and collaboration with stakeholders is positively linked with employees' ability to create new knowledge					
This bank maintains close collaboration in development of occupational standards with the industry					
Boundary Spanners are considered to be useful in managing knowledge					
Co- managed innovation HR hubs provide knowledge which is useful to the bank					
This bank leverages on human capital resources to conduct experiments for HR innovations					
External communities of practice are instrumental in providing mitigation necessary to solve work-related challenges					

Statements	SD	D	N	A	SA
Skilled and knowledgeable Human resource practitioners and consultants are often outsourced to act as sources of new knowledge					
External collaboration and partnerships with institutions such as universities, research institutes, has provided important inputs to build up new knowledge					
The development of human resource industrial clusters will improve the knowledge management capability of the bank					
HR knowledge process outsourcing is a comprehensive enterprise knowledge management tool					
This bank focuses on overcoming the challenges rather than exploit advantages of knowledge acquired from outside					
Visiting HR experts and consultants that temporarily work full-time in the bank are potential sources of external knowledge					

2.4.2 Reluctance of recipient to accept knowledge from the outside (not invented here syndrome) is not acceptable in this bank.

 Kindly tick   Yes [ ]   No [ ]

2.4.3 Your collaborating partners and your bank join to ensure quality related information is honestly shared (tick one)

Always   [ ]   Not always [ ]   Never [ ]

2.3.4. Propose strategies that commercial banks can put in place to manage knowledge in addition to strategies stated in the questionnaire

....

……………………………………………………………………………………

The objective of this sub section is to get your feedback on the role of strategic human resource management practices on performance.

Kindly tick the answer that that reflects your belief.

Scale: 1 = Strongly Disagree; 2 = Disagree; 3 = Undecided; 4 = Agree; 5 = Strongly Agree

Kindly tick the answer that that reflects current condition in your bank

Statements	SD	D	N	A	SA
Strategic sourcing enhances the relationship between knowledge management strategies and performance					
The use of strategic recruitment and selection process can play a major role in creating a talented pool of people who are needed for better performance					
Employment security enhances the relationship between the employees and the management for the purpose of maintaining highly committed employees which will result in positive outcomes					
This bank provides high compensation contingent performance to the employees, they will increase their productivity and hence improved performance					
High compensation creates an attitude likely to enhance employees' skills and knowledge for facilitating better employees' performance in the bank					
There is willingness to collaborate across organizational units though the engagement of self-managed teams					
Team work development that is more oriented toward long-term and team-based achievements will encourage better performance					
Adequate job designs enhance the relationship between knowledge management strategies and performance of employees in our bank					
Appropriate work-life balance enhances the relationship between knowledge management strategies and the bank's performance					
Talent management enhances the relationship between knowledge management strategies and the bank's performance					

3.1.2 Apart from the strategies mentioned above, kindly suggest other strategic practices that moderate the relationship between knowledge management strategies and performance of commercial banks.

....

....

3.1.3. Based on your understanding, what are the main obstacles to the creation of an environment where the management employ strategic human resource management practices …………………………………………………………………………………

Section 4: Performance of Commercial Banks

The objective of this sub section is to get your feedback on performance of commercial banks.

Kindly tick the answer that that reflects your belief.

Scale: 1 = Strongly Disagree; 2 = Disagree; 3 = Undecided; 4 = Agree; 5 = Strongly Agree

Kindly tick the answer that that reflects current condition in your bank

Statements	SD	D	N	A	SA
Majority of employees in this bank achieve and surpass targets					
Our bank achieves and surpass set targets					
This bank records low levels of absenteeism					
Employees in this bank are highly motivated and deliver on the duties and responsibilities					
Employees are willing to take an work extra time in ensuring the bank achieve its goals quickly and efficiently					
The level of job satisfaction among the employees is satisfactory					
This bank has put in place measures that support employee engagement and commitment					
The rate of employees' turnover in this bank is low compared to partners in the industry					
Employees are willing to co-operate with the management and colleagues to beat team targets					
High performance teams are highly encouraged in this bank to achieve high work performance					
Employees work with minimal supervision to deliver on their targets					
Employees are keen to deliver quality work within the shortest time possible					
Employees in this bank have knowledge, skills and abilities necessary to deliver good results					
The number of complaints recorded in this bank is low compared to industry trends due to high standards of tasks					

Propose performance indicators that reflect performance of commercial banks in addition to indicators stated in the questionnaire

....

……………………………………………………………………………………

Thank You

Appendix IV: Document Analysis Guide

Strategy	Description	Knowledge Management Strategies in Commercial Banks
Tacit–oriented knowledge management strategy	Tacit Knowledge	1…………………………………………… 2…………………………………………… 3…………………………………………… 4…………………………………………..
Explicit-oriented knowledge management strategies	Explicit Knowledge	1…………………………………………… 2…………………………………………… 3…………………………………………… 4…………………………………………..
Internal-oriented Strategy	Internal Knowledge	1…………………………………………… 2…………………………………………… 3…………………………………………… 4…………………………………………..
External-oriented Strategy	External Knowledge	1…………………………………………… 2…………………………………………… 3…………………………………………… 4…………………………………………..
-	Bank Performance	1…………………………………………… 2…………………………………………… 3…………………………………………… 4…………………………………………..

Appendix V: Secondary Data Collection Template

Year	Pre-Tax Profit	Market Share
2010		
2011		
2012		
2013		
2014		
2015		
2016		
2017		

Appendix VI: Authorization Letter from NACOSTI

**NATIONAL COMMISSION FOR SCIENCE,
TECHNOLOGY AND INNOVATION**

Ref No. **NACOSTI/P/18/52526/22003**   Date **26ᵗʰ March, 2018**

Jane Njeri Njenga
Jomo Kenyatta University of
Agriculture and Technology
P.O. Box 62000-00200
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on *"Knowledge
management strategies and performance of commercial banks in Kenya,"* I am
pleased to inform you that you have been authorized to undertake research in **all
Counties** for the period ending 23ʳᵈ March, 2019.

You are advised to report to the Chief Executive Officers of selected Commercial
Banks, the County Commissioners and the County Directors of Education, all
Counties before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the Science, Technology
and Innovation Act, 2013 to conduct research in Kenya, you shall deposit a copy of the
final research report to the Commission within one year of completion. The soft copy
of the same should be submitted through the Online Research Information System.

**DR. M.K. RUGUTT, PhD, QGW
DIRECTOR GENERAL**

Copy to:

The Chief Executive Officers
Selected Commercial Banks.

The County Commissioners
All Counties.

Appendix VII: Licensed Commercial Banks in Kenya

1. African Banking Corporation Limited
2. Bank of Africa Kenya Limited
3. Bank of Baroda (K) Limited
4. Bank of India
5. Barclays Bank of Kenya Limited
6. Charterhouse Bank Limited
7. Chase Bank (K) Limited (in receivership)
8. Citibank N.A Kenya
9. Commercial Bank of Africa Limited
10. Consolidated Bank of Kenya Limited
11. Co-operative Bank of Kenya Limited
12. Credit Bank Limited
13. Development Bank of Kenya Limited
14. Diamond Trust Bank Kenya Limited
15. DIB Bank Kenya Limited
16. Ecobank Kenya Limited
17. Equity Bank Kenya Limited
18. Family Bank Limited
19. First Community Bank Limited
20. Guaranty Trust Bank (K) Ltd
21. Guardian Bank Limited
22. Gulf African Bank Limited
23. Habib Bank A.G Zurich
24. I & M Bank Limited
25. Imperial Bank Limited (in receivership)
26. Jamii Bora Bank Limited
27. KCB Bank Kenya Limited
28. Mayfair Bank Limited
29. Middle East Bank (K) Limited
30. Oriental Bank Limited
31. National Bank of Kenya Limited
32. NIC Bank
33. Paramount Bank Limited
34. Prime Bank Limited
35. SBM Bank Kenya Limited
36. Sidian Bank Limited
37. Spire Bank Ltd
38. Stanbic Bank Kenya Limited
39. Standard Chartered Bank Kenya Limited
40. National Bank Limited
41. UBA Kenya Bank Limited
42. Victoria Commercial Bank Limited
43. HFC Limited

Source (CBK, 2017)

Appendix XIII: Directory of Licensed Microfinance Banks

1. Caritas Micro finance limited
2. Century Micro Finance Limited
3. Choice Microfinance Bank Limited
4. Daraja Microfinance Bank Limited
5. Faulu Microfinance Bank Limited
6. Kenya Women Microfinance Bank Limited
7. Rafiki Microfinance Bank Limited
8. Remu Microfinance Bank Limited
9. SMEP Microfinance Bank Limited
10. SUMAC Microfinance Bank Limited
11. U&I Microfinance Bank Limited
12. Uwezo Micro Finance Bank Limited
13. Maisha Micro Finance Bank Limited

Source: CBK (2017)