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Influence of Knowledge Management Capabilities on Organizational Performance in commercial State Corporations in Kenya

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ABSTRACT: Globally, knowledge management capabilities are increasingly becoming an important aspect for governments, businesses and NGOs to improve effectiveness, sustainability and ultimately organizational performance. Using the best knowledge management strategies can improve current and future organizational performance. Therefore, leveraging the first-rate knowledge control competencies is crucial. This study seeks to establish the effect of knowledge management capabilities and the performance of public corporations in Kenya.The specific research objective of the study will be to assess the impact of infrastructure capabilities, process capabilities, innovation capability, and learning capability on commercial state corporations performance in Kenya. The study will be anchored on resource-based vision theory, cognitive learning theory, socio-technical theory, organizational knowledge transfer theory, and knowledge spiral theory, which will involve the study of different variables. This study will be founded on the resource-based view theory, cognitive learning Theory, social-technical theory, organization knowledge conversion Theory and the Knowledge Spiral Theory. The study will adopt a descriptive research design targeting 55 Commercial State corporations in Kenya. The study will use stratified random sampling technique to selects a sample of 165CEO's, Human resource and Finance managers working in the Commercial State corporations in Nairobi, Kenya. Primary data will be collected using semi-structured questionnaires whereas secondary data will be collected using institutional websites. Pilot testing will be conducted on 16 employees which represents 10% of the sample size to assess questions validity and reliability. Data collected will be analyzed using both qualitative and quantitative analysis. The relationships between variables will be determined using multiple regression analysis. From the analysis, a summary conclusions and recommendations will be made thereof.

I. INTRODUCTION

The problem statement, study objectives, and background knowledge management and performance information are all presented in this chapter. The chapter also includes a description of the purpose of the study and its scope.

1.1 Background information

The 21st century organizations operate in highly competitive environment driven by ICT. The foregoing demands that modern organizations have to leverage on superior firm capabilities to strike sustainable strategic advantage. Firm capabilities consist of the ability to adequately manage resources to perform a task within an enterprise (Barba-Sanchez &Atienza-Sahuquillo, 2010). Although there are multiple firm capabilities but the capability to manage knowledge has progressively become more crucial in today's knowledge economy. Knowledge is being considered as a valuable commodity that is implanted in products especially high-technology goods and in employees' minds (Kovacic et al., 2006). More so, knowledge is gradually being viewed as a commodity or an intellectual asset (Sundiman et al., 2013). For many firms to attain high performance, knowledge management (KM) must be used in addition to the effective use of physical assets and natural resources (Lee &Sukoco 2007). In recent years, numerous studies on the value of KM in the business sector have been conducted (Metaxiotis et al. 2005). Public utilities are just one example of a government entity that is investing a lot of time and money in technological and technical innovation to become more competitive and improve their skills.

Rasula et al (2012) asserts that managershave an obligation to ensure that employees' internal knowledge is incorporated into the organization because this kind of intellectual capital can be lost in an event the employee decides to leave the organization. As such,knowledge management aims at transforming individual knowledge into organizational knowledge (Kovacic et al., 2006; Rasula et al., 2012). Management needs knowledge management (KM) capabilities in order to transform individual knowledge effectively and efficiently. Chuang (2004) claims that KM competence entails the effective distribution and usage of KM-based resources within an organization with the goal of enhancing organizational performance (Kiessling et al., 2009). Researchers often imply this positive effect of KM on organizational performance (Rasula et al., 2012). However, it is how firms leverage their KM resources to create unique KM capabilities that can respond quickly to competitors' strategic moves as well as to determine the firm's overall effectiveness(Gold et al., 2001).

1.1.1 Global perspective of Knowledge Management

As part of the increased efforts to promote macroeconomic economic development, the integration of proper KM methods in the current corporate world is gaining relevance (Lee et al., 2016). This growing interest is imperative in enhancing sustainable growth and also provides solutions to challenges posed by the dynamics of complex business environment characterized by globalization and intensive competition. Multinational corporations are compelled to come up with effective solutions and capabilities for addressing knowledge management problems occasioned by local differentiation, global integration and worldwide innovation (IMF, 2020). These firms have had to device effective solutions including information and communication technologies, internet, intranet and computer-supported cooperative systems as a means to enhance global flexibility and learning levels in order to stay competitive. Multinational corporations employ organizational and technological mechanisms aimed at pooling world-wide knowledge and to transfer and adopt innovative products and process technologies and project management to international markets (Kianto, Hussinki&Vanhala, 2018).

According to Ly and Lai (2017) the field-based investigation conducted on knowledge management practices in research and project management with respect to Du Pont, a diversified global manufacturing company in the United States; found that knowledge was constituted as a complex and coherent wholes in the form of intricate web of meaning. To leverage on this knowledge, the company needs to re-contextualize and re-create the knowledge to be in tandem with the new context and the current realities (Ly & Lai., 2017). An assessment conducted by Bilgihan et al (2016) on utilization of knowledge management systems by Unilever Plc, a multinational corporation based the United Kingdom found that the company had an elaborate storage and retrieval system for scientific and technical information. At corporate level, the existence of corporate information service is responsible for managing the company's knowledge competitive intelligence function and the libraries. Additionally, the company-wide range intranet software allows global collaboration and greater standardization of company-wide dispersion of knowledge (Bilgihan et al., 2016). According to Abas and Jali (2015), the naturally occurring organizational learning and innovation at all levels in Magna International Corporation in Canada was found to be a critical factor in facilitating wider sharing of relevant knowledge through appropriate organizational processes and systems. The innovation mechanisms provides for specialized structures and capabilities to represent knowledge in most appropriate and effective manner to increase organizational performance. Jorde and Teece (2019) found that knowledge management problem-solving capabilities were significant in addressing performance pitfalls by Uniper SE, an energy company in Germany. The problem-solving capabilities enabled system fault tracking, evaluation and effective integration of systems components in order to increase efficiency and align individual components towards achievement of organizational goals.

1.1.2 Regional perspective of Knowledge Management

In African context, several organizations are progressively employing knowledge management strategies as way of improving their employees competencies needed to thrive in ever changing business environment. This is done by setting up research and development departments to acquire new knowledge that would improve their performance and gain competitiveness (Nair &Munusami, 2020). Accumulation of knowledge acquired through research and development enhances effectiveness in discharging organizational duties because it forms the basis for innovation by utilizing technology and knowledge. According to Dewah (2015), the Firm-Level Knowledge accumulation and management provided a competitive advantage for South African-based firm Glencoreplc among the natural resource producing companies in the region and across the globe as well. Knowledge management practices were found to be useful tools for the firm's competitiveness and sustainability. While investigating the contribution of knowledge management and innovation in the growth of Nigerian based food and beverage specialty company, Nestle plc, the Lubua and Malima (2020) noted that knowledge is only useful when it changes operational lines, increases the income

earning of an enterprise and improves the quality of products. The study by Bilgiham et al (2016) noted that knowledge transfer and reuse played a fundamental role in achieving successful projects management of manufacturing firms in Tanzania. The firms adopted strategic knowledge management practices such as creation, reuse, transfer and management in efforts towards increasing projects performance in their organizations. While investigating the performance of KM practices with respect to Ghanaian export corporations, Martin and Sabagh (2015) found out that employees' teamwork and seamless transfer and sharing of expertise knowledge were significant aspect responsible for increased organizational performance.

1.1.3 Local perspective of Knowledge Management

In Kenya, State corporations are constantly confronted by challenges related to manufacturing, production and service delivery due to inadequate KM strategies for addressing them. According to Kinyua et al (2015), KM plays a fundamental role in forecasting challenges in the market needs and customer preferences in order to create a product and services that best serve the market and as such gain competitiveness. Ireri (2016) found that multinational companies in Kenya invest heavily in their research and development in quest for sourcing for new information and equipping their employees with relevant skills and knowledge required to address the challenges in contemporary business environment. Kinyua et al (2015) found knowledge conversion to be the first step in knowledge application and contributed positively to the performance of commercial banks in Kenya. Knowledge management has become an important concept in performance of organizations in Kenya. It plays a significant role in promoting organization long-term competitiveness by making employees more productive given that knowledge is a source of lasting competitive advantage.

In Kenya, state corporations remain key drivers to socio-economic development in the country and are the primary vehicle for overseeing, delivering and implementing large-scale projects (World Bank, 2021. As in most of Sub-Saharan African countries, the Kenyan commercial state corporation portfolio is highly concentrated constituting of 83.5% of the revenue generated; considering the financial year 2019/2020, this was more than two-thirds of the total revenue generated. The focus of states corporations has included government investments in manufacturing, agriculture, infrastructure, textile, pharmaceuticals, vehicles and other non-strategic sectors. State corporations are still the primary vehicle for enhancing socio-economic development and transforming Kenya into a newly industrializing, middle income country providing a high quality of life to all citizens (IMF, 2020). Over the years, state corporations in Kenya have showed declining performance compared to organizations in private sectors.This is brought about by the ubiquitous nature of service businesses, improvements in infrastructure for service-oriented technology, and an extraordinary rise in demand for knowledge workers. So, in order to increase organizational performance, it is crucial to improve knowledge management capabilities for state businesses. In order to show how knowledge management capabilities, affect organizational performance of state enterprises in Kenya, this study will be conducted.

1.2 Statement of the Problem

KenyanState Corporation sector contributes significantly to the economic development of the country. The sector contributes to an average of 14% of the GDP. In the 2019/2020 financial year, the sector generated more than two-thirds of the total commercial revenue collected (World Bank, 2021). However, the sector has experienced a downturn in terms of revenue and net profits. In contemporary knowledge economy, the declining performance trend can be associated by inadequate exploitation and utilization of abundant resources available in the field of KM in state corporations. It is the concern of every organization manager to identify appropriate KM resources and allocate them effectively in order to improve organizational performance.

State owned commercial enterprises have had notable successes, failures and missed opportunities in development. For instance, some of the state-owned commercial enterprises have consistently been making profits while others are performing poorly. Noteworthy is the fact that 34 percent of all state-owned commercial enterprises made losses in 2011/2012. Some of the state-owned enterprises that made losses during the period 2021/2022 include National Cereals & Produce Board, (Kshs. 166,713,000,000), IDB Capital Limited (Kshs. 9,536), Kenya Industrial Estates Ltd (Kshs. 12,236,000,000) and Kenya National Trading Corporation at (Kshs. 29,472,000,000). (Appendix 1) presents the extent to which some of the state owned commercial enterprises are making losses.Given the contribution of KM resources to the organizational performance, this research seeks to assess the most salient KM capability options which significantly influence organizational performance of state corporations in Kenya.

Many studies have been conducted on the effects of knowledge management (KM) on organizational performance, notably using intermediate variables (SundimanIqbal et al, 2013).

A study by Ogunmokun et al (2020) on the impact of trust on knowledge-sharing behavior and service innovation demonstrates the positive impact of trust on organizational knowledge-sharing behavior. Whereas previous studies have only examined one or a very limited number of knowledge management actors, more comprehensive research models may consider a larger number of actors. This gives decision-makers the tools they need to generate knowledge and boost productivity. Because of this, none of the research explicitly focused on knowledge management and its impact on organizational performance in Kenyan State Companies. Due to this, the study evaluates the impact of knowledge management capabilities on organizational performance in Commercial State Corporations in Kenya in an effort to close the knowledge management gap.

1.3 Research objectives

This study will be guided by the following research objectives:

1.3.1 General objective

To assess theinfluence ofknowledge management capabilities on organizational performance in Commercial State Corporations in Kenya

1.3.1 Specific objectives

1. To assess the effect of infrastructure capability on organizational performancein Commercial State Corporations in Kenya.
2. To determine the effect of process capability on organizational performancein Commercial State Corporations in Kenya.
3. To establish the effect of innovation capability on organizational performance in Commercial State Corporations in Kenya.
4. To evaluate the effect of learning capability on organizational performance in Commercial State Corporations in Kenya.

1.4 Research Questions

i. To what extent does infrastructure capability affect organizational performance in Commercial State Corporations in Kenya?
ii. How does process capability affect organizational performance in Commercial State Corporations in Kenya?
iii. To what extent does innovation capabilityaffect organizational performancein Commercial State Corporations in Kenya?
iv. How does learning capability affect organizational performance in Commercial State Corporations in Kenya?

1.5 Justification of the study

The study finding will be imperative in the management of States corporations by providing insights that inform policy decisions as well as proper utilization and implementation of KM capabilities with a view of improving organizational performance. The findings on KM capabilities will benefit the organizations in the following area:

1. **Government-** The government will be interested in supporting ideas which are informed by scientific research and innovation and which are being run well by professionals who are keen on knowledgemanagement practices. Economic development will also be actualized by hiring correct professionals in the state corporations, with the required skills and experience, which will reduce cases of incompetence in public service sector. The findings from this study is expected to benefit both County and national government's policy makers in formulating policies that are backed by research findings regarding Commercial State Corporations' performance in order to improve on knowledge sharing and ultimately their corporate success.
2. **Scholars-**The study's findings will set the groundwork for identifying knowledge gaps in the field of knowledge management and aid in the creation of new knowledge in that subject. It will be helpful for academics looking to increase the body of research on organizational activities and knowledge management in private and public institutions in business.
3. **Stakeholders-**Stakeholders involved in government enterprise projects and programs will also benefit from this study, such as project managers and beneficiaries, as any project faces various risks in knowledge management implementation and execution.

1.6 Limitations of the Study

The researcher encountered quite a number of challenges related to the research and most particularly during the process of data collection. Due to inadequate resources, the researcher conducted this research with limited resources. Some respondents were biased while giving information due to reasons such as victimization in the event the research findings turned sour.

Respondents were naturally suspicious and uneasy when directed to cooperate in a study that they were not aware of its consequence. To further calm and set at ease the respondents, the researcher explained the nature of the study and its intended purpose and that it was purely an academic undertaking and that information divulged would be held in confidentiality by the researcher.

Owing to the sensitivity of information sought, the management considered it confidential; therefore, access was at times denied or otherwise limited. This negatively affected the validity and reliability of the data collected or unnecessarily made the research process fairly challenging. The researcher mitigated this by obtaining an introduction letter from the University and a pledge of confidentiality as well as an assurance that the data was to be used solely for academic purposes.

1.7 Scope of the study

The study specifically explored State corporations in Kenya to determine how KM capabilities influence their organizational performance. There are 248 state corporations in Kenya where 55 of them are commercial enterprises while 193 are non-commercial entities. This study will cover two construct; the independent variable (KM capabilities) and dependent variable (organizational performance) with State corporations being the unit of analysis for the study.

II. LITERATURE REVIEW

This chapter introduces the theoretical review based on the various variables i.e. independent and dependent variables, the conceptual framework which is a pictorial representation of the dependent variable and independent variablesin the study. The chapter also contains the critique of reviewed literature, research gaps and the summary of reviewed literature.

2.1 Theoretical review

Theories are formulated to provide an explanation of various phenomena and challenge situations as well as increasing the understanding of facts and assumptions of critical issues that affect humans. The theoretical frameworks are explanations about the phenomena (Camp, 2001). It provides the research the lens to view the world clearly (Marriam, 2001). The theories that guide the study are discussed below

2.1.1 Resource-Based View Theory

The Resource-Based View (RBV) of firms, according to Payal and Debnath (2015), is based on the notions of economic rent and the notion that a company is a collection of skills.This view of strategy has a coherence and integrative role that places it well ahead of other mechanisms of strategic decision making (Ramussen& Nielsen, 2011). An emphasis on the use of resources and capabilities by businesses to forge competitive advantages eventually results in superior value generation and increased organizational effectiveness. A business must wisely manage its resources and talents to fulfill the competing demands of a constantly shifting business environment in order to achieve organizational efficiency.Resource-based view contends that firms perform well and add value when they employ strategies that make the most of their own internal resources and capabilities.This links well with the process capability. With the growth of strategic management theory, there has been considerable interest in focusing on intangible resources or Intellectual Capital (IC) and their deployment in the firm (Inkinen, Kianto&Vanhala, 2015).

2.1.2 Cognitive Learning Theory

This theory states that humans generate knowledge and meaning through sequential development of an individual's cognitive abilities, such as the mental processes to recognize, recall, analyze, reflect, apply, create, understand, and evaluate. The Cognitivists' (Malkawi& Abu, 2016) learning process is adoptive learning of techniques, procedures, organization, and structure to develop internal cognitive structure that strengthens synapses in the brain. The learner requires assistance to develop prior knowledge and integrate new knowledge. The purpose in education is to develop conceptual knowledge, techniques, procedures, and algorithmic problem-solving using Verbal/Linguistic and Logical/Mathematical intelligences. The learner requires scaffolding to develop schema and adopt knowledge from

both people and the environment. The educators' role is pedagogical in that the instructor must develop conceptual knowledge by managing the content of learning activities. The theory insists that the learner is expected to use skills and knowledge obtained during learning to solve problems in real life situations (Bharadwaj, Chauhan, & Raman, 2015). This theory can be linked well with the innovation capability.

2.1.3 Socio-Technical Theory

Knowledge management capabilities can be classified according to a socio-technical theory postulated by Bostrom and Heinen (1977). Socio-technical theory assumes that organizations or an organization work system can be described as a social-technical perspective. According tothis perspective, we can identify that enablers are made up of two jointly independent but correlative interacting systems. Two sometimes conflicting set of values underlie much socio-technical thinking (Liebowitz, 2012). The first is a belief is the importance of humanistic principles. The main task of the designer is to enhance the quality of working life and the job satisfaction of the employee. In turn the achievement of these objectives will enhance productivity and yield added value to the organization. The second set reflects managerial values. Socio-technical principles are merely instruments for achieving primarily economic objectives. Nevertheless, socio-technical ideas permeate much IS thinking even if not always referred to as such (Matos & Miguel, 2013). This theory can be linked with the infrastructure capability.

2.1.4 Organizational Knowledge Conversion Theory

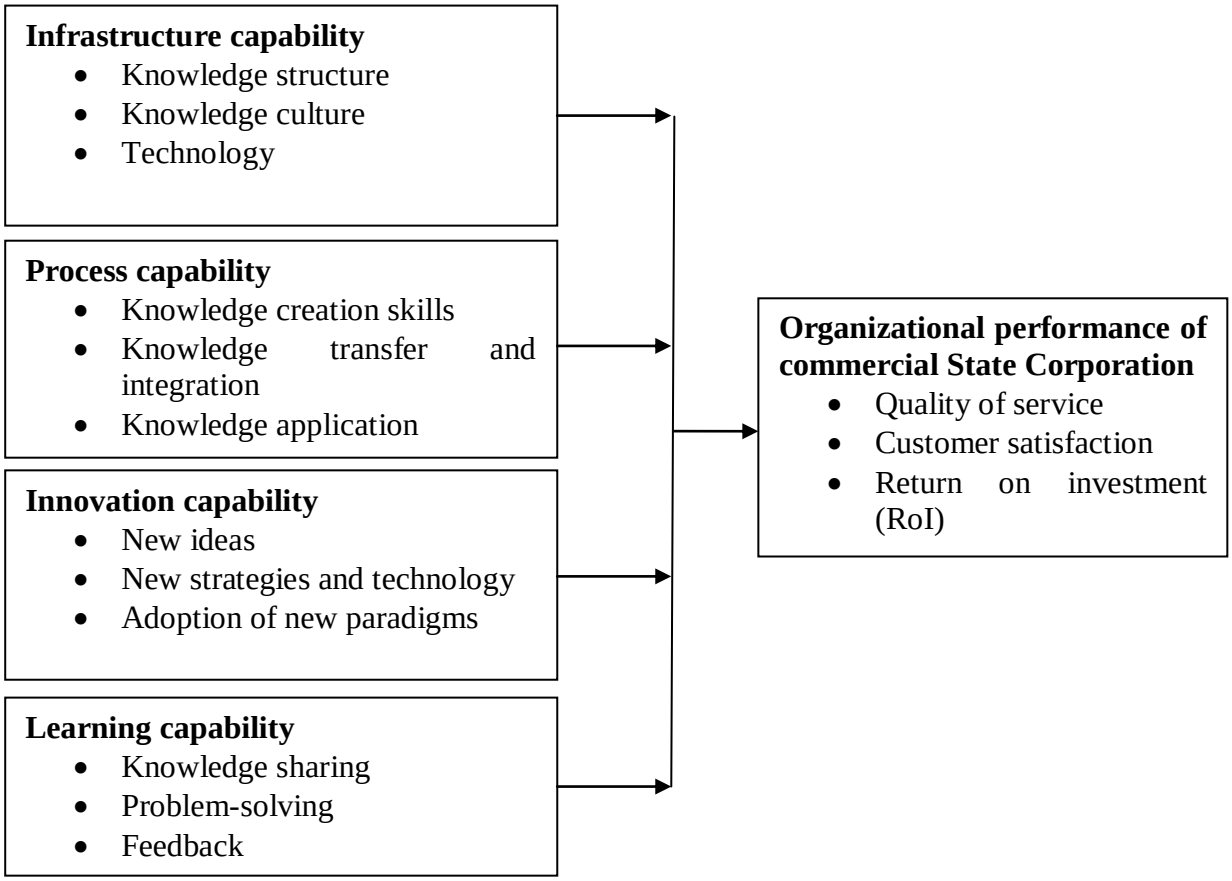
The theory of organizational knowledge conversion developed by Nonaka and Takeuchi (2011), which examines how explicit and tacit information combine to promote internal efficiency, is the source of the organization knowledge conversion theory.The theory conceives generation of knowledge as a continuous process which begins and keeps on recurring over time. Alavi and Leidner (2001) noted that knowledge generation as suggested by this theory is somewhat, different from the ordinary conceptualization of knowledge management. While the conceptualization of knowledge management proposes a certain traces an conventional evolutionary path right from generation to application, this theory suggest a sequential evolution of knowledge with a different 'stage of life' which are useful and consistent with accepted conceptualization of KM processes of generating new quality knowledge. This theory provides insights into how organizational knowledge can be leveraged through knowledge conversion process to enhance organizational effectiveness and increased performance. This theory can be linked with the process capability.

2.1.5 Knowledge Spiral Theory

This theory was proposed by Nonaka and Takeuch (1995) to explain the shift from tacit knowledge to explicit knowledge based on individual of the organization and organizational learning and innovation. The conceptualization of this theory underscores the significance of the process to generate knowledge than the function of the knowledge stages for organizational lifeexplicit knowledge and tacit knowledge are both taken into consideration by the theory. The knowledge that can be presented through media outlets, websites, manuals, official gatherings, and conferences is known as explicit knowledge. However, this knowledge is based on tacit knowledge which originates or can be acquired through practice, training and experiences in a particular profession or work. Chen and Chen (2006) noted that the consistent and continuous interplay of the both tacit and explicit knowledge results in spiral conversion process thereby expanding knowledge. The theory can be linked to the learning capability and is relevant to the study by noting that any organization aimed at enhancing its performance should focus on transforming knowledge by supporting all relevant knowledge conversion modes as well as promoting diverse policies and knowledge management practices.

2.2 Conceptual Framework

According to Jabareen (2008) a conceptual framework is the diagrammatical representation of the relationship between variables involved in the study. It helps to organize existing literature on a topic into a meaningful form. It summarizes and organizes ideas into comprehensible format. As with all investigation in the social world, the framework itself forms part of the agenda for negotiation to be scrutinized and tested, reviewed and reformed as a result of investigation (Guba& Lincoln, 2009). The conceptual framework is presented in Figure 2.1 below:



Source: Author (2023)

Figure 2.1: Conceptual framework

The infrastructure capabilities of a firm encompass three components: knowledge structure, knowledge culture, and technology (or T-shaped skills). Technology within KM can be seen to have evolved through three cumulative and interdependent phases, namely mainframe, personal computers, and networking, among which networking has become the dominant process Information technology (IT) is relevant to KM for a few fundamental reasons.

The ability of an organization to produce new information by translating tacit knowledge into explicit knowledge and then ultimately into organizational knowledge is known as a process capability in knowledge management (KM).Process capability includes dimensions such as creation, transferring, integration and application of knowledge.

The ability to explore and exploit, on the other hand, involves experimenting with new concepts, ways of thinking, technologies, approaches, and expertise in order to identify opportunities that are superior to those that have already passed their prime. It also includes improving existing ideas, paradigms, technologies, strategies, and knowledge in pursuit of old certainties.Learning capability is the ability of firms to optimally capture knowledge for addressing problems in the future and structuring the collected knowledge for enhanced innovativeness. It also seeks to understand what is already known in order to share with others and reuse it when problems arisein future. Additionally, it enhances review, improvement and use of knowledge to drive better learning and problem-solving techniques.

2.2.1 Infrastructure capability and organizational performance

Cultural knowledge management resources are a significant factor that can either promote or obstruct corporate knowledge management, according to Holsaple and Jushi (2001). HolsapleandJushi(2001)arguethattheexistenceofanappropriateknowledgecultureencouragesemployeestocreateandsharei deasandinformationessentialtopromotingeffectivemanagementoftheinstitution. According to Gold et al (2001) knowledge structure is a critical component the knowledge management infrastructure that determines the business degrees of freedom an organization enjoys in its business plans. According to Chuang (2004) an organization structure that is dominated by non-integrated and incompatible knowledge management systems limits firm's knowledge sharing

and new knowledge creation resulting in poor organizational performance.Chuang (2004) found that knowledge management infrastructure consisting of Information Technology (IT) assets coupled with competent people generates new knowledge, increases efficiency and admits desirable capabilities in the organization. Chuang (2004) noted that knowledge and employees competence is acquired by encouraging new human and technological capabilities in the organization. This enhances new knowledge discovery, knowledge mapping and knowledge generation therefore improving the organizational performance.

2.2.2 Process capability and organizational performance

The knowledge management process, according to Rasula, Vuksic, and Stemberger (2012), promotes the transition of individual knowledge into organizational knowledge, enhancing organizational performance and competitiveness.Alwis and Hartmann (2008) found that an effective knowledge management process helps organizations to capture, organize, transfer and distribute knowledge in business line implementation. Li et al (2006) indicate thatexistence proper KM process enhances policy communication and implementation due to enhanced efficiency in information sharing across the organization. Wu and Chen (2014),noted that the KM process that incorporates proper systems of creating, transferring, integration and application of knowledge in business improves its competitiveness, sustainability and organizational performance. Song (2008) discovered a strong correlation between knowledge development strategies and organizational improvement. The study found that approaches of creating knowledge were linked positively with knowledge management capabilities and organizational performance.Alwis and Hartmann (2008) assert that knowledge is a significant resource to an organization due to its valuable, rare and inimitable characteristics. Knowledge is acquired through social interaction or invention process and results in successful organizational performance if applied effectively (Alwis& Hartmann, 2008).

2.2.3 Innovation capability and organizational performance

According to Gold et al (2001) utilization of strategic and evidence-based innovations coupled with current technology generate new ideas and knowledge that drive the organization objectives. Chuang (2004) notes that technical collaboration among employees and distributed learning allow individuals within the organization to collaborate, exchange ideas and share technical knowledge. Thisallowsemployeestoinnovatevaluablenewproductfeatures,therebymaintainingthecompetitivenessoftheorganization(Chuang,2004).AccordingtoAlwisandHartmann(2008),thecombinationoftechnologyandinnovationcreatesapplicationsand platformsthatsupportanorganization'sbusinessneeds,therebyimprovingorganizationalperformance. Chang and Chuang (2011) found that the use of technology in sharing knowledge and business strategy with respect to manufacturing industries had significant effects in their competitiveness and organizational performance. In the same vein, Jackson et al (2006) pointed out that knowledge sharing serves as a pathway for innovation, knowledge application and ultimately the competitive advantage of organizations. Liu et al (2004) found that utilization of effective strategies for knowledge management innovation promoted greater achievements and superior performances of organizations.

2.2.4 Learning capability and organizational performance

Neuman (2016) found that knowledge management capabilities involve effective utilization of knowledge and ideas gained by firms in view of addressing organizational challenges and creating solutions for posterity. According to McAdam and McCreedy (2018) the learning capability of the firm is its ability to optimally capture knowledge for addressing problems in the future and structuring the collected knowledge for enhanced innovativeness. Rasula, Vuksic and Stemberger(2012) indicated that existence of technical expertise in an organization creates a pool of ideas, skills and knowledge among the employees. Effective utilization of this human resource creates new ideas, new knowledge and diverse problem-solving approaches in the organization. It also promotes innovations, competitiveness and improves organizational performance (Rasula, Vuksic&Stemberger, 2012).

Greniner, Bohmann and Kremar (2017) noted that problem-solving capability of a firm is made effective by an organizational systems consisting of enhanced infrastructure, technology coupled with learning andinnovative ideas as well as competent and experienced Information Technology experts. This enhances review, improvement and use of knowledge to drive better learning and problem-solving techniques as well as improved organizational performance.

2.2.5 Organizational performance

According to Sherif et al (2006), performance is a measure of how well an organization has achieved its financial or non-financial goals. It crucial to note that the result obtained in when investigating the relationship between KM capabilities and organizational performance depends on the research methodology employed (Sherif et al., 2006). The methods of

measuring organizational performance include financial, innovation, customer satisfaction and internal processes. According to Robinson et al (2006) the financial perspectives examines if the organization's execution and implementation of its strategy contributes to bottom-line improvement. The financial measures include revenue growth, profit margins, costs, operating income and economic value added. The internal control process relates tothe processes and activitiesthat lead to successful achievement of the interest and expectations of clients includingsuch as innovation of new products and services, supply chain management and improving asset utilization(Robinson et al., 2006). The consumer receives time, quality, performance, and service in exchange for measurable outcomes from this value offer, such as market share and customer satisfaction.

2.3 Empirical Review

This section examines earlier researchers' writings about the study's goals (infrastructure capability, process capability, innovation capability and learning capability).

Huda (2014) employed a quantitative study approach utilizing convenience sample techniques to investigate the effect of KM skills on the performance of private institutions in Malaysia, spanning academic and non-academic workers, as well as on postgraduate students.According to the results, it was found that the organizational structure has the greatest impact on the performance of private universities. In Tehran, Iran, Sayed (2020) looked into the variables influencing knowledge management and its effect on human capital-mediated organizational performance. The study demonstrated that the intermediary variable of human capital has a role in knowledge management's direct and indirect effects on organizational performance. Sarkar (2017) looked into how knowledge management techniques affected organizational performance at Halabja University in Iraq.The study utilized descriptive research design in a population of 350 respondents comprising of academics, managerial staff, lecturers and the dean of the colleges of the university. The study found knowledge management to be a critical and very useful tool for developing and strengthening regulation and increasing its efficiency and effectiveness.Alireza (2015) investigated the role of KM practices in developing human capital in an organization. According to the Balanced Scorecard, the study showed that knowledge production, storage, and application had a statistically significant impact on organizational performance.

To ascertain the effect of knowledge management on small manufacturing enterprises in Nigeria, Mukhtar and Rosil (2015) used cross-sectional and quantitative study approaches along with systematic random sampling. The study finds that organizational performance is indirectly impacted by knowledge management through organizational innovation. Pius Sotery (2020), on the other hand, investigates how knowledge affects the success of small enterprises in Dar es Salaam, Tanzania.The study utilized random sampling techniques in recruiting the study participants. The findings indicated that knowledge creation and knowledge utilization were positively and significantly related to the performance of garage workshops,while knowledge sharing was found to have a positive but insignificant impact on garage workshops performance.

To explore the effects of knowledge management methods on performance of Mobile Telephone Companies in Kenya, Elijah and Catherine (2021) used a descriptive survey design and census sampling approach to identify respondents from a population of 21 Kenyan-based mobile telephone firms. The study concluded that knowledge management practices in general influences organization performance in various ways including, knowledgeable employees, better decision making in the organization, improved service offering to client, reduced operational costs, improved organizational competitiveness.Joy and Jared studied the combined effects of KM skills on the performance of mobile telephone businesses in 2021. The study used a descriptive survey design with 63 heads of departments from Kenya's 21 telephone companies as its target population. The study found knowledge acquisition, knowledge application, knowledge transfer and knowledge protection to have a positive significant effect on performance. Jane and Thomas (2016) interrogated the effects of knowledge management capabilities on competitive advantage in the Kenya hospitality industry. The study adopted descriptive research design and targeted a population of 313 management staff in the five star hotels in Nairobi. The study employed stratified random sampling to get a sample of 172 respondents. The study established that organizations uses knowledge management to widen the array of products without increasing the cost. Also, it was found that firms in the hospitality sector create systems to promote knowledge transfer across functional boundaries. Knowledge storing did not have significant influence on return on assets and return on equity.

2.4 Critique of Reviewed Literature

In order to better understand the influences on knowledge management and how it affects organizational performance, Sayed (2020) carried out a study. This study made no mention of the knowledge management techniques that were employed. While Sarkar (2017) looked at the impacts of knowledge management practices on the organizational performance of Halabja University in Iraq, Alireza (2015) focused on the role of knowledge management practices in fostering human capital in an organization with a focus on the Iranian ministry of urban development. These studies

concentrated on knowledge management strategies in Middle Eastern and Asian businesses operating on a global scale. The knowledge management capacities in local contexts, and more specifically among State enterprises in Kenya, were not the main focus of these studies.Mukhtar and Rosil (2015) studied the effects of knowledge management on small manufacturing firms in Nigeria, whereas Pius Sotery (2020) investigated the effects of knowledge on the performance of small enterprises in Dar es Salaam, Tanzania. Both studies used the examples of businesses in Tanzania and Nigeria to focus on Small and Medium Businesses (SMEs) from a regional viewpoint. The studies did not touch on knowledge management capabilities which are significant aspects in organization performance. The studies also focused on regional scope more particularly in Nigeria and Tanzania and not in local perspective.

Huda (2014) focused his study on the effect of knowledge management abilities on organizational performance on private institutions in Malaysia. Although the study's similar emphasis on knowledge management skills, its setting was international because it was aimed at Malaysian private universities. The focus of the current study is on Kenyan government-run enterprises.

Elijah and Catherine (2021) looked at the impact of knowledge management techniques on the performance of Kenyan mobile phone companies, while Jane and Thomas (2016) looked at the impact of knowledge management skills on competitive advantage in the country's hospitality sector. Although each study's focus was distinct, they were all conducted locally in Kenya. They targeted Kenya's mobile phone companies and hospitality sector. The current study concentrates on Kenyan State businesses.

2.5 Research Gaps

According to theoretical, empirical, and local research, there is still a void in the body of knowledge that needs to be filled by researchers. This relates to the impact of organizational performance, demographics, and knowledge management capabilities. The majority of the literature review sources place more emphasis on knowledge management capabilities than practices (Alireza, 2015; Alireza, 2015; Elijah & Catherine, 2021). Similarly, most of them did not investigate the relationship of the same to get insights into how independent variables influence the dependent variable. Although they touch on it, they do not deeply evaluate it.

Based on the empirical research, there is a contextual gap with respect to the scope of the studies reviewed. Most of the studies reviewed focused on global and regional perspectives of knowledge management in organizations both public and private institutions. Huda (2014) conducted a study in Malaysia, Sarkar (2017) in Iraq and Alireza (2015) in Iran. Additionally, Mukhtar and Rosil (2015) carried a study in Nigeria and Pius Sotery (2020) in Tanzania. The current study was conducted locally by investigating State corporations in Kenya.The study varies in design and methodology as most studies have applied cross sectional research design and systematic random sampling types of methodology have been used in previous studies (Mukhtar&Rosil, 2015; Kenneth &Zachariahs, 2013). The study shows similarities in the application of descriptive study design and purposive sampling method. In this study descriptive design wasbe adopted. Purposive sampling was applied.

It is challenging to generalize knowledge management capabilities because the majority of research conducted in Kenya concentrated on particular businesses such mobile telephone carriers (Joy & Jared, 2021; Jane & Thomas, 2016). This gap was filled by our investigation. The capacity of the four independent factors to affect knowledge management competencies had an impact on the performance of State enterprises in Kenya. In order to ascertain how knowledge management capabilities impact the performance of State companies in Kenya, the study was focus on this topic.

2.6 Summary of reviewed literature

In order to comprehend the research variables, this chapter has covered the Resource-Based Perspective Theory, Cognitive Learning Theory, and Social-Technical Theory.The conceptual framework has been utilized to illustrate the relationship between organizational performance of commercial State firms in Kenya as the dependent variable and knowledge management capabilities as the independent variable.The chapter has also highlighted the empirical literature, the critique of reviewed literature and finally the research gaps.

III. RESEARCH DESIGN AND METHODOLOGY

3.1: Introduction

This chapter covered the specific steps that were used to enhance execution of the study in attaining the study objectives. It comprised of the research design, target population, sampling technique and sample size, data collection instruments, data collection procedure, pilot testing as well as data analysis and presentation and ethical considerations.

3.2Research design

A research design is a blueprint utilized the study to provide answers to the research questions (Kothari, 2014). The study utilized descriptive research design. In order to define the study variables, a descriptive research approach, according to Mugenda and Mugenda (2008), entails gathering data on current events. The purpose of the research design is to describe the current situation at the time the study was done.

3.3Target population

Neuman (2011) avers that the target population is the concretely specified large group of many occurrences from which a researcher draws a sample and to which the outcomes of a sample are generalized or those people, events, or records that contain the predictable truths about the study that determines whether a sample or a census was selected (Cooper & Schindler, 2011). The focal point of the research study was Kenya's Commercial State Corporations. The unit of analysis of the study was 55 commercial state corporations in Kenya according to the Report of the Presidential Taskforce on Parastatal Reforms of 2013.

The respondents of this study constituted human resource officers, finance managers and chief executive officers of the commercial state corporations and they formed the unit of analysis. They were targeted as they are responsible for the smooth running of the corporations. This confirms the attribute of observable characteristics of the target population through which the study results are generalized (Mugenda&Mugenda, 2009).

3.4Sampling technique

According to Sekaran and Bougie (2010), sampling is a section of data being collected or an element of a population that is selected for a study process. Bryman and Bell (2011) also refers to sampling as the selection for investigation of a section of the population. Since each unit of the population has an equal probability of inclusion, stratified random sampling was used to determine the sample so as to minimize human bias. A table of random numbers was used to select the respondents by the researcher. This method enabled each member to have an equal opportunity of being selected thus reduced the element of bias. From the population, a sample of size of forty-eight (48) corporations was selected using stratified random sampling. Respondents for this study were selected from the following three management positions namely; CEO's, Human resource and Finance managers from each of the respective commercial state corporations. This was because they are key positions for the operation of the state corporations and are responsible for the corporations' strategic change interventions.

3.4.1: Sampling Frame and Sample Size

Cooper & Schindler (2011) affirm that a sample frame is a list of essential elements within a population from which the sample is drawn which may include institutions and individuals among others. A sampling frame was developed using a list of both strategic and pure commercial state corporations in line with the Report of the Presidential Taskforce on Parastatal Reforms of 2013. The target population was relatively small, inhomogeneous and so the study adopted a census method of data collection as it would assist in collecting accurate data concerning every unit before conclusions of the study are drawn. Each Commercial State Corporation has relevant features that were a source of information.

The sample size was determined using the formula given by Miller and Brewer (2003) with a confidence interval of 95 percent as given below:

$n = N/(1+N(a^2)$……Equation (3.1)

Where:

N= sample size,

N= sampling frame

α = margin of error (0.05%)

The formula gave us a sample size of 48 which was arrived at as follows:

$n = 55/1 + (0.05^2)\ 55$ ……Equation (3.2)

n= 48

A sample size of 48 commercial state corporations was drawn randomly using random number generator from 55 reclassified government owned entities that was traced for the study. A random number is described as a computational or physical device designed for generation of sequence of numbers/symbols that do not have any pattern (Kothari &Garg, 2014). The technique was operationalized by entering the desired quantity (55) and running it in the random number generator against a range of 1 to 55. The numbers for the study were then picked from the random number generator.

Table 3.1: Sample Size

Types of Commercial State Corporations	Population Size	Sample Size
Purely commercial state corporations	34	30
Strategic Commercial State Corporations	21	18
Total	**55**	**48**

RoK, (2013)

3.5Data collection instruments

The study used primary and secondary data. Mugenda and Mugenda (2003) defined primary data as the information collected by the researcher from the field. Data collection instruments involve methods which are used to get data from the selected sample size (Kothari, 2004). Data on infrastructure capability, process capability, innovation capabilityand learning capability was gathered for the study using a semi-structured questionnaire. Marshall and Rossman (2010) assert that, the questionnaires are the best data collection tools for the study since the researcher can collect data from a large sample in the shortest time possible.

3.6 Pilot Testing of Research Instruments

The pilot testing was conducted as an essential requirement in advance of the main study in order to ensure trustworthiness and utility (Malngvist, Hellberg, &Mollas, 2019). Its purpose is to test the reliability and validity of the data collection instrument on a small scale, with the aim that the results will help identify actual and potential challenges that the researcher can address before commencing the anticipated study (Fraser, Fehman, &Arcscott, 2018). The pilot study questionnaires were used totest and verify thequestions before they are administered to the participants during the study. The pilot study was crucial in filling any gaps or correcting any errors that might have been contained in the questionnaires during their preparation. The pilot study also helped in determining the questionnaires' reliability and validity. Seven employees, or 10% of the sample size, participated in pilot testing to evaluate the validity and reliability of the questions.

3.6.1 Instrument Reliability

Reliability is the consistency of the acquired score or the consistency of the findings across administrations of the research instrument (Kothari, 2012). The generalizability of the data was evaluated using Cronbach's alpha, a reliability coefficient that provides an impartial assessment.The Cronbach's alpha was employed to determine how well this study's research instrument measures what it ought to measure. The Cronbach alpha value of 0.7 is the acceptable level of reliability in a data collection instrument. The higher the Cronbach alpha value yielded in the study, the more reliable the instruments are in capturing the research information. Therefore, the researcher ensured that the questions were designed and put across in the simplest way possible to ensure consistency in the responses.

3.6.2 Instrument Validity

Mugenda and Mugenda (2003) posit that in order to ensure instrument validity, the researcher used the sampling techniques that were provided in the sampling procedure techniques for validity. Validity of the instrument was ensured after the research instrument's amendments. The purpose of adjusting the research instrument was to obtain accuracy, to making sure the right responses are adapted, and to have the flow of the questions in order. The researcher ensured that the questionnaires met the three types of validity, which included the content, construct, and criterion validity. The content validity testing enabled the researcher to check whether the study instruments were in line with the given study objectives. Construct validity ensured assessment of the underlying theoretical construct supposed to be measured. Criterion validity evaluates how accurate the test measured the outcome it was designed to measure. This instrument wasgiven to the expert for validity check.

3.7Data collection procedure

According to Burns and Grove (2003) data collection is a systematic way of gathering information using instruments such as questionnaires and interview guides. The study used a semi-structured questionnaire which was administered by the researcher with the help of research assistants. The researcher used mail survey and a drop and pick method to administer the questionnaires. To enhance the response rate, the study put into ethical consideration for purposes of clarity of the study to the participants so that they would be willing to participate in the study.

3.8Data analysis and presentation

Burns and Grove (2003) defined data analysis as a way for organizing data to yield meaningful information. Hyndman (2008) defined data processing as a way of extracting data from the questionnaire and manipulating it to produce statistics. Data collected was both qualitative and quantitative which was edited and cleaned before undergoing statistical analysis. Quantitative data was analyzed using frequency distribution, mean scores, and standard deviations while qualitative data was analyzed using content analysis. For data processing and analysis, the study made use of SPSS version 21 (Statistical Program for Social Science). The data was summarized according to the study's specific objectives. The study also conducted an inferential analysis through the use of multiple linear regression model. The model was, thus, structured:

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

Where:

Y = Organizational performance
β_1, β_2 and β_3, β_4, = Beta coefficients
β_0 = Constant Term
X_1 = infrastructure capability
X_2 = process capability
X_3 = innovation capability
X_4 = learning capability
ε = Error term

The test established R^2statistic, F value, regression coefficient in order to test the casual relationship between the independents and dependents variable. The p-value was used to test the significance of the test, with the critical p-value was set at 0.05

IV. DATA ANALYSIS RESULTS AND DISCUSSIONS

4.1. Introduction

This chapter explores details on research results and analysis regarding the influence of knowledge management capabilities on organizational performance in a case of commercial state corporations in Kenya. Descriptive and inferential statistics have been used to discuss the findings of the study.

4.2. Response Rate

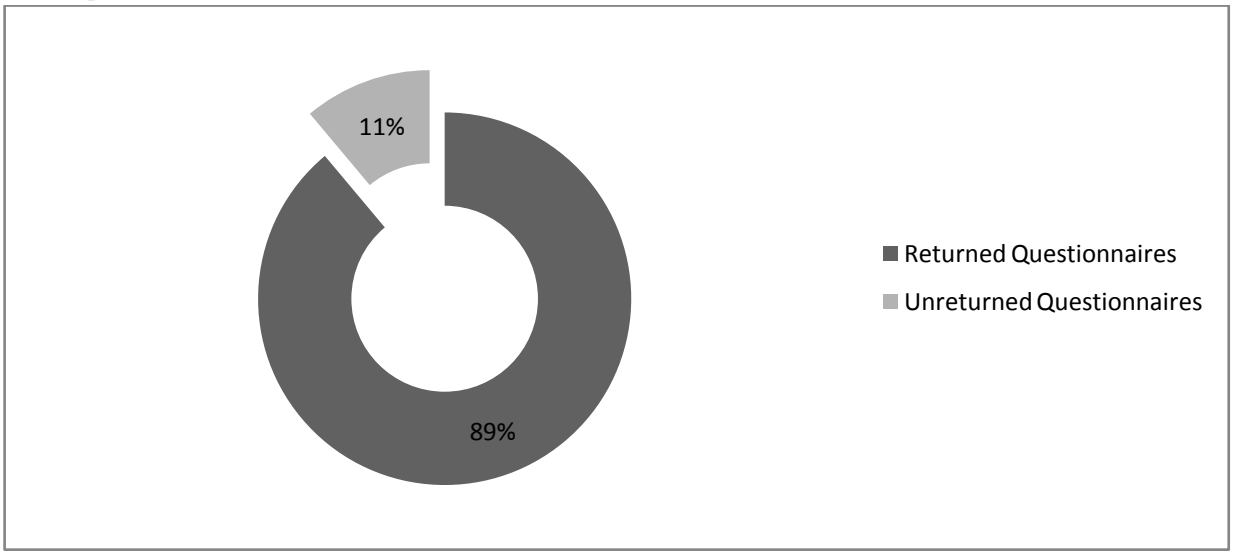


Figure 4.1: Response Rate

The study targeted 48 human resource officers, 48 finance managers and 48 chief executive officers of the commercial state corporations. Of the questionnaires issued, 128 filled in and returned the questionnaires making a response rate of 87%. This response rate was satisfactory to make conclusions for the study. Weisberg, Krosnick& Bowen (2006) recommended a response rate of 70%. According to Mugenda and Mugenda (2008), a response rate of 50 percent is adequate for analysis and reporting; a rate of 60 percent is good and a response rate of 70 percent and over is excellent. Based on the assertion, the response rate was considered to be excellent.

4.3 Validity and Reliability Tests

Reliability of the questionnaire was evaluated through Cronbach's Alpha which measures the internal consistency. Cronbach's Alpha was calculated by application of SPSS version 26 for reliability analysis. The value of the alpha coefficient ranges from 0-1 and may be used to describe the reliability of factors extracted at 0.5 significance level from dichotomous and or multi-point formatted questionnaires or scales.

A higher value shows a more reliable generated scale. Cooper & Schindler (2008) have indicated 0.7 to be an acceptable reliability coefficient. Table 4.1 shows that had the highest reliability was Innovation capability(α=0.833) followed by Process Capability (α=0.801), Infrastructure Capability (α=0.769) and finallyLearning Capability (α=0.723). This illustrates that all the five scales were reliable as their reliability values exceeded the prescribed threshold of 0.7 (Mugenda & Mugenda, 2008).

Table 4.1: Reliability Coefficients

Scale	Cronbach's Alpha	Number of items
Infrastructure Capability	0.769	6
Process Capability	0.801	7
Innovation capability	0.833	4
Learning Capability	0.723	4

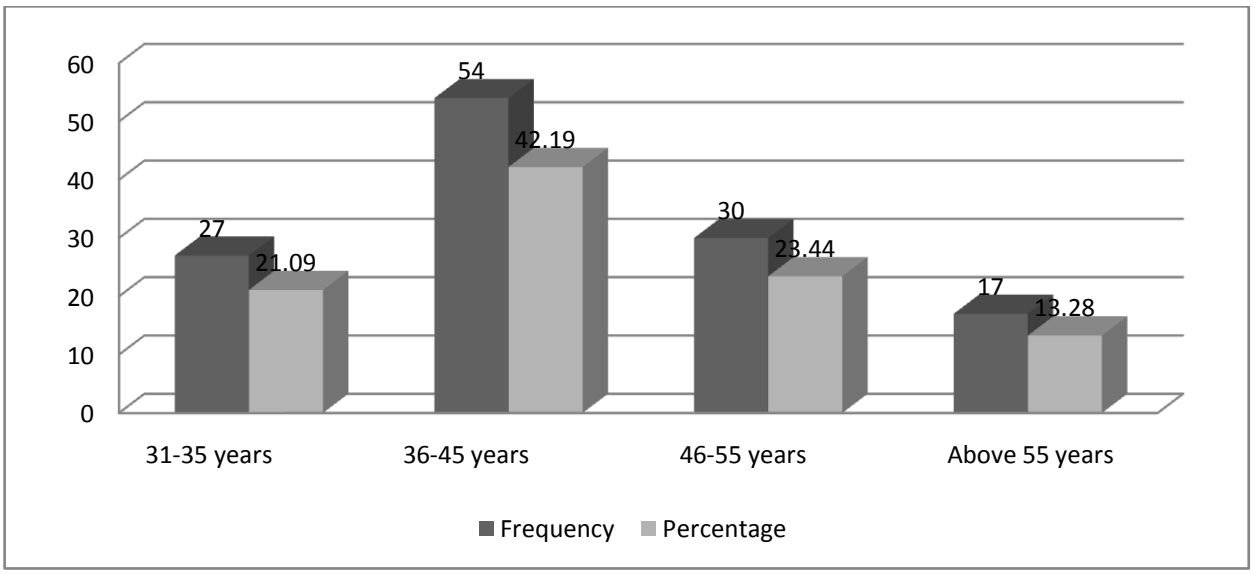
Source: Researcher, (2023)

4.4 Demographic Information

The study sought to determine the influence knowledge management capabilities on organizational performance in a case in Commercial State Corporations in Kenya. The demographic information of the respondents included age of the respondents, gender of the respondents, respondents role in the State Corporations, Highest Level of Education and the number of years the respondents had worked in management roles. The findings from the analysis are illustrated in the following subsections.

4.4.1: Age of the Respondents

The study sought to establish the respondents' age. The results from the analysis are illustrated in the figure below as shown.



From the analysis of findings, majority of the respondents (54, 42.19%) indicated that they were aged between 36 and 45 years old. Closely after, were respondents (30, 23.44%) who indicated that they were aged between 46-55 years old. 21.09% of the respondents indicated that they were aged between 31-35 years old while the least response (17, 18.28%) indicated that they were aged over 55 years. The study thus surmised that majority of the study participants were 36 years and over and had therefore worked long enough in the State Corporations to provide information on the influence of knowledge management capabilities on organizational performance of Commercial State Corporations in Kenya.

4.4.2Gender of the Respondents

The study also sought to establish the gender of the respondents. The results from the analysis are illustrated in the figure below.

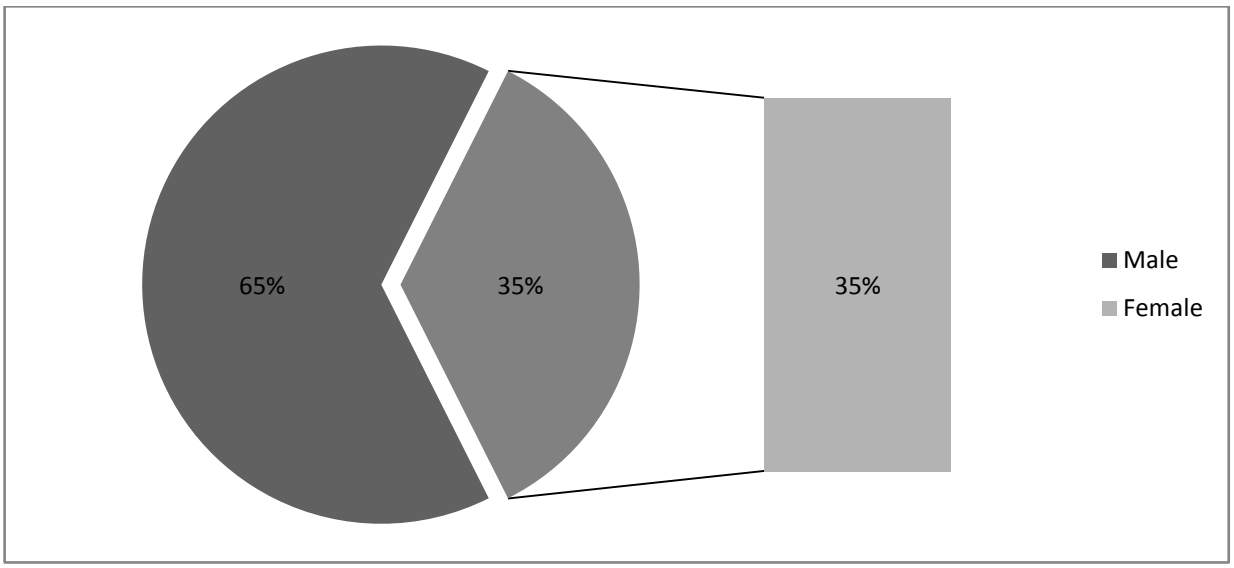


Figure 4.2: Gender of the Respondents

From the analysis of findings, majority of the respondents (83, 65%) were male while (45, 35%) were female respondents. The study thus established that there were more male respondents than the female respondents but the disparity was not sufficient to create any biasness on the study on the influence of knowledge management capabilities on organizational performance in Commercial State Corporations.

4.4.3Respondents' Role in Commercial State Corporations

The study sought to establish from the respondents' role in Commercial State Corporations. The results from the analysis of findings are illustrated in the figure below as shown.

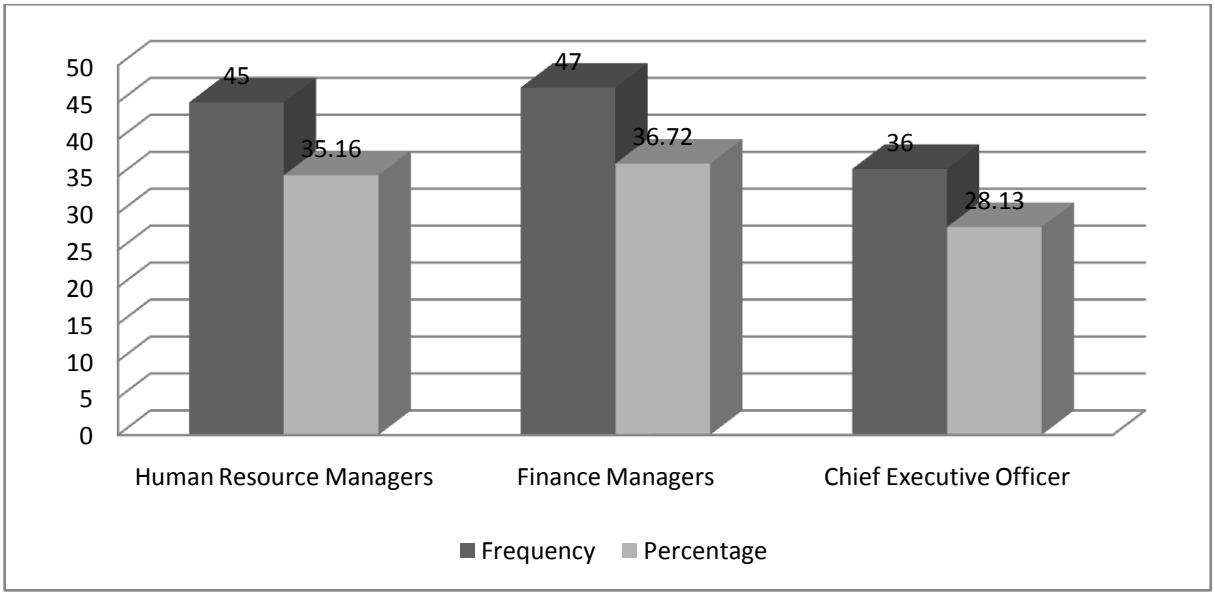


Figure 4.3: Respondents' Role in the State Corporations

The study showed that majority (47, 36.72%) of the respondents indicated they were they were finance managers in the commercial state corporations. Closely after, were respondents (45, 35.16%) who indicated that they were human resource managers in the commercial state corporations. Also noted from the findings was that 28.13% of the respondents indicated that they were chief executive officers in the commercial state corporations. The study inferred a well spread response in the different cadres of management in the commercial state corporations to provide information on the influence of knowledge management capabilities on organizational performance in Commercial State Corporations in Kenya.

4.4.4 Highest Level of Education

The study sought to establish the respondents' highest level of education. The results from the analysis of findings are illustrated in the figure below as shown.

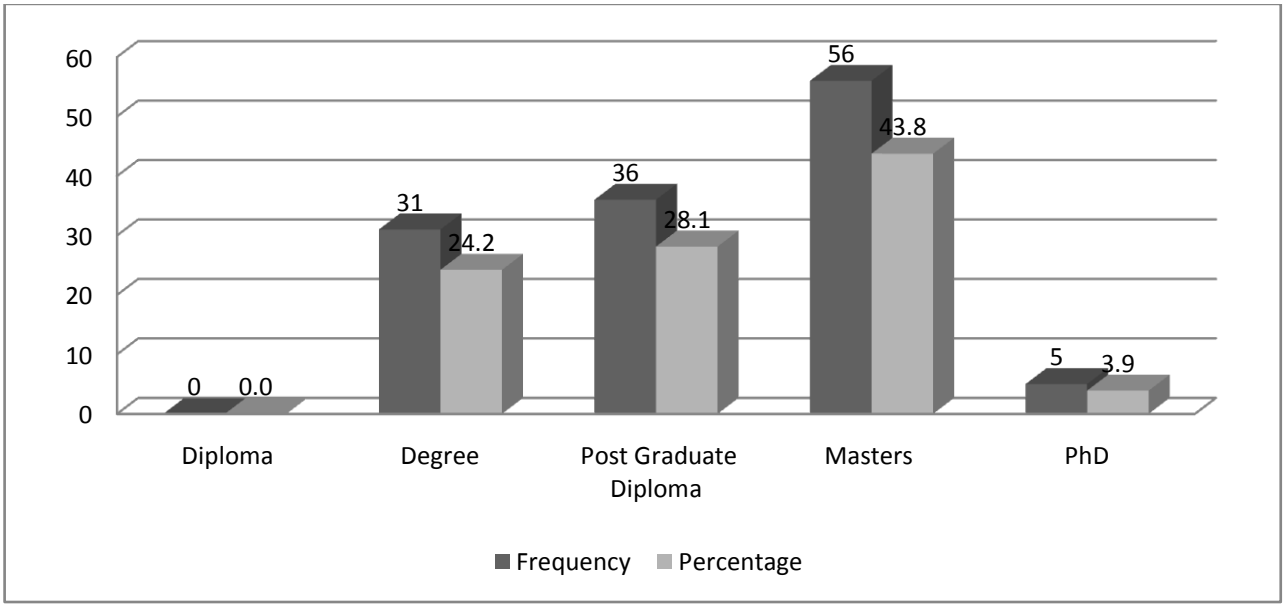


Figure 4.4: Highest Level of Education

From the analysis of findings, it was established that majority of the respondents (56, 43.8%) indicated that they had a master's degree as their highest level of education. This was closely followed by respondents (36, 28.1%) who indicate that they had a post graduate degree as their highest level of education. The study also established that (5, 3.9%) of the respondents indicated that they had a doctorate as their highest level of education. Thus, majority of the respondents noted that they were well educated to provide relevant information on the influence of knowledge management capabilities on organizational performance of commercial state corporations in Kenya.

4.4.4: Respondent's Number of Years Worked in Management Roles in the Corporation

The study sought to establish the number of years the respondents had worked in management roles in the commercial state corporations. The results from the analysis of findings are illustrated in the figure below as shown.

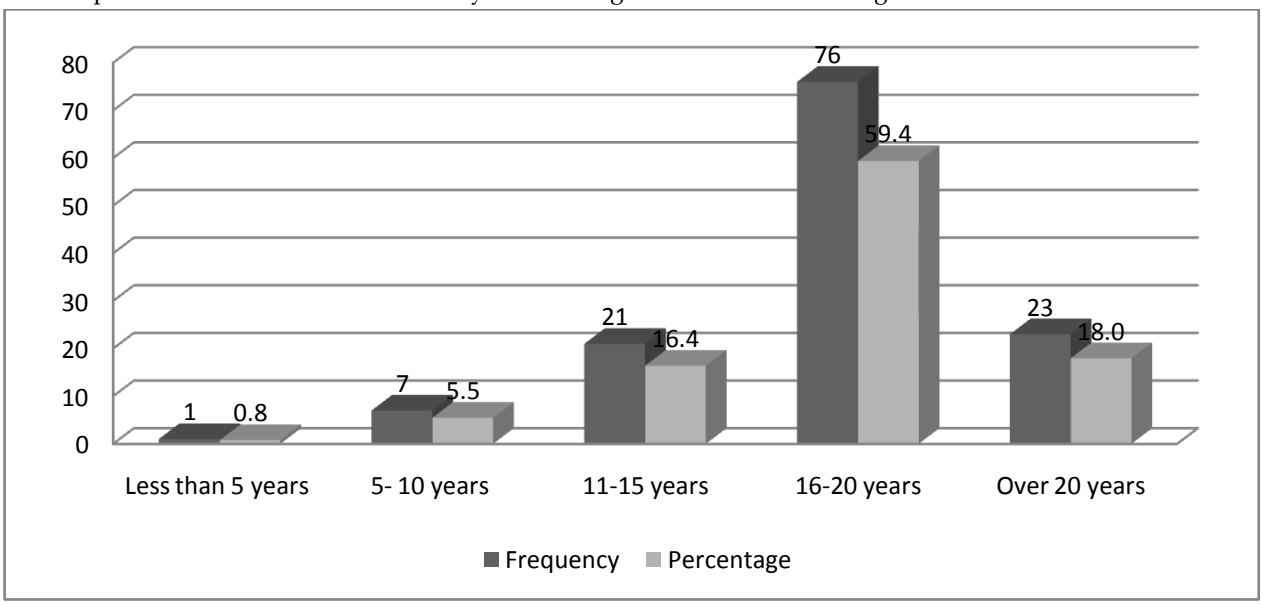


Figure4.5: Years worked in Management Positions in the Commercial State Corporations

The study showed that majority (76, 59.4%) of the respondents indicated they had worked for a period of between 16-20 years in managerial roles in the Commercial State Corporations. Closely after were (23, 18.0%) respondents who

indicated that they had worked for a period of 11-15 years in managerial roles in the commercial state corporations. From the analysis also, it was established that (7, 5.5%) of the total respondents indicated that they had worked for a period of 5-10 years in managerial roles. Only a mere 0.8% of the total respondents indicated that they had worked for a period of below 5 years in managerial roles. The study thus inferred that the respondents had enough experience to provide information with regards to the influence of knowledge management capabilities on organizational performance in the commercial state corporations.

4.5 Descriptive Statistic

The study sought to determine the influence of infrastructure capability, process capability, innovation capability, learning capability on organizational performance in the commercial state corporations.The respondents were asked to rate how they felt about different variables related to the different knowledge management capability indicators on a five point Likert scale. The range was from "strongly agree" (5)' to "disagree" (1). The score of 1 represented "strongly disagree" 2 represented "disagree", 3 represented "neutral", 4 represented "agree" and five represented "strongly agree"

4.5.1: Infrastructure Capability

The study sought to determine the perception of the respondents on statements relating to infrastructure capability. The table 4.2 below shows the findings of from the respondents.

Table 4.2: Infrastructure Capability

Statement	N	Minimum	Maximum	Mean	Std. Deviation
The corporation has elaborate knowledge structures for knowledge management	128	3.00	5.00	4.8875	.35556
The knowledge culture promotes knowledge management systems	128	4.00	5.00	4.9250	.26505
The corporation has technology that promotes knowledge creation and sharing	128	2.00	5.00	4.7468	.60908
The corporation recruits skilled and competent employees	128	1.00	5.00	4.2625	1.02801
Valid N (list wise)	128				

Source: Author, (2023)

Based on the responses from the respondents, it was clear that most respondents saw that there was a relationship between infrastructure capability and organizational performance of commercial state corporations in Kenya. It was established from the analysis that most respondents strongly agreed (M=4.963, S.D= 0.191) on the statement; the firm's performance have significant effect on voluntary disclosure. It was also established that a significant number of the respondents strongly agreed (M=4.8875, S.D= 0.35556) that the corporation has elaborate organizational structures for knowledge management. Also noted from the analysis of the findings was that a significant number of the respondents agreed (M=4.925, S.D=0.26505) thatthe organizational culture promotes knowledge management systems. A significant number of the respondents agreed (M=4.747, S.D=0.609) that the corporation has technology that promotes knowledge creation and sharing. Additionally, some of the respondents agreed (M=4.263, S.D=1.028) that the corporation recruits skilled and competent employees. From the findings, it was clear that infrastructure capability has a significant bearing on organizational performance of Commercial State Corporations in Kenya.

4.5.2: Process Capability

The study sought to determine from the respondents the relationship between process capability and organizational performance of commercial state corporations. The table 4.3 below shows the findings of from the respondents.

Table 4.3: Process Capability

Statement	N	Minimum	Maximum	Mean	Std. Deviation
The corporation supports knowledge creation and development skills for its employees	128	4.00	5.00	4.9750	.15711

The corporation has mechanisms which enhances knowledge transfer and application	128	1.00	5.00	4.6500	.74799
There are mechanisms of transforming individual knowledge to organizational knowledge	128	1.00	5.00	4.8125	.57575
The corporation promotes creating of new knowledge through learning and research	128	3.00	5.00	4.8000	.51312
Valid N (list wise)	128				

From the findings in the SPSS analysis, process capability was seen to have a significant effect on organizational performance of commercial state corporations. For instance, most of the study participants strongly agreed (M=4.65, S.D = 0.74799) thatthe corporation has mechanisms which enhances knowledge transfer and application. A significant number of the respondents also strongly agreed (M=4.813, S.D = 0.575) to the statement; there are mechanisms of transforming individual knowledge to organizational knowledge. The study also noted (M= 4.8000, S.D= 0.513) that the corporation promotes creating of new knowledge through learning and research. Also noted from the analysis of findings was that the corporation supports knowledge creation and development skills for its employees. This was seen true by the mean calculated of 4.975. The standard deviation calculated of 0.157 indicated uniformity in the responses. From the findings, it was clear that process capability had a significant influence on the organizational performance in the commercial State Corporations

4.5.3: Innovation Capability

The study sought to determine whether innovation capability has an influence on organizational performance in the commercial state corporations. The table 4.4 below shows the findings from the respondents.

Table 4.4: Innovation Capability

Statement	N	Minimum	Maximum	Mean	Std. Deviation
The corporation has support systems for exploring new ideas	128	3.00	5.00	4.8571	.42035
The corporation exploits new strategies for knowledge management	128	3.00	5.00	4.8875	.35556
Technology is employed to generate knowledge	128	4.00	5.00	4.9750	.15711
The corporation supports improvements of ideas and embraces new paradigms for KM	128	2.00	5.00	4.8625	.47049
Valid N (listwise)	128				

Based on the responses from the respondents, it was clear that most respondents saw that there was a relationship between innovation capability and organizational performance of commercial state corporations. It was established from the analysis that most respondents indicated (M=4.8571, S.D= 0.42035) that the corporation has support systems for exploring new ideas. It was also established that the respondents strongly agreed (M=4.888, S.D= 0.356) that the corporation exploits new strategies for knowledge management. Also noted from the analysis of the findings was that a substantial percentage of the respondents agreed (M=4.975, S.D=0.157) that technology is employed to generate knowledge. Also noted from the findings was that a majority conceded that the corporation supports improvements of ideas and embraces new paradigms for KM. This was seen true by the mean calculated of 4.8625. The standard deviation calculated of 0.47049 indicated uniformity in the responses from the respondents.From the findings, it was clear that innovation capability had a significant influence on organizational performance of the commercial state corporations.

4.5.4: Learning Capability

The study sought to determine whether there is a relationship between KM learning capabilities on organizational performance of commercial state corporations. The table 4.5 below shows the findings of from the respondents.

Table 4.5: Learning Capability

Statement	N	Minimum	Maximum	Mean	Std. Deviation
The corporation is keen in enhancing knowledge sharing	128	3.00	5.00	4.9375	.29095

There is constant upgrade and improvement of problem-solving techniques and capabilities	128	3.00	5.00	4.8750	.36888
The corporation is keen in enhancing feedback	128	5.00	5.00	4.5843	.23785
The corporation create KM solutions for posterity	128	2.00	5.00	4.6000	.70442
Valid N (listwise)	128				

Source: Researcher (2023)

Based on the responses from the respondents, it was clear that most respondents saw that there was a relationship between learning capability and organizational performance of commercial state corporations. It was established from the analysis that most respondents strongly agreed (M=4.9375, S.D= 0.29095) on the statement; the corporation is keen in enhancing knowledge sharing. It was also established that the respondents strongly agreed (M=4.875, S.D= 0.368) that there is constant upgrade and improvement of problem-solving techniques and capabilities. Also noted from the analysis of the findings was that most respondents agreed (M=4.5843, S.D=0.23785) that the corporation is keen in enhancing feedback. Also noted from the findings was that the corporation create KM solutions for posterity. This was noted true by the mean calculated of 4.600. The standard deviation calculated of .70442 indicated uniformity in the responses from the respondents. From the findings, it was clear thatlearning capability had a significant influence on organizational performance of commercial state corporations.

4.6 Bivariate Linear Correlation Analysis

The correlation between the variables was as shown using linear correlation analysis. The results are presented in Table 4.6.

Table 4.6: Bivariate Linear Correlation Analysis

		Infrastructure Capability	Process Capability	Innovation capability	Learning Capability	Organizational Performance
Infrastructure Capability	Pearson Correlation	1	.877**	.876**	.864**	.704**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	128	128	128	128	128
Process Capability	Pearson Correlation	.877**	1	.843**	.886**	.666**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	128	128	128	128	128
Innovation capability	Pearson Correlation	.876**	.843**	1	.829**	.659**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	128	128	128	128	128
Learning Capability	Pearson Correlation	.864**	.886**	.829**	1	.664**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	128	128	128	128	128
Organizational Performance	Pearson Correlation	.704**	.666**	.659**	.664**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	128	128	128	128	128

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

From the bivariate correlation analysis, Table 4.6 reveals that the predictor variables shown have a positive association between them at a significant level of 0.01 and hence included in the analysis. The bivariate linear correlation analysis values are as presented as follows:

Infrastructure CapabilityX1 = 0.704**

Process Capability X2 = 0.666**

Innovation capabilityX3 = 0.659**

Learning Capability X4 =0.664**

The study established a strong positive and significant relationship betweeninfrastructure capability and organizational performance (correlation coefficient 0.704**); the findings also reveal a strong positive relationship between process capability and organizational performance(correlation coefficient 0.666**). The bivariate correlation showed a moderately strong positive correlation between Innovation capability and Organizational Performance(correlation coefficient 0.659**). Also established from the responses, a strong positive relationship exists between Learning Capability and Organizational Performance of Commercial State Corporations(correlation coefficient 0.664**). This implies that the Infrastructure Capability had the strongest effect onorganizational performance in the commercial state corporationswhile innovation capability had the least but significantly positive effect on organizational performance of the commercial state corporations.

4.7 Regression Analysis

The study sought todetermine the influence of knowledge management capabilities on organizational performance of commercial state corporations in Kenya. The indicators under investigation were: infrastructure capability, process capability, innovation capaiblity and learning capability. The regression model was:

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

Where;

α = Constant

Y = Organizational Performance

X_1 = infrastructure capability

X_2 = process capability

X_3 = Innovation capability

X_4 = Learning capability

ε = Stochastic disturbance error term

4.7.1 ANOVA

The study sought to determine the ANOVA used to present regression model significance. The findings are presented in Table 4.7.

Table 4.7: Model Validity

Model		Sum of Squares	**Df**	Mean Square	F	Sig.
1	Regression	10.833	4	2.708	32.072	.000[b]
	Residual	10.332	123	.084		
	Total	21.165	127			

a. Dependent Variable: Organizational Performance

b. Predictors: (Constant), infrastructure capability, process capability, innovation capability, learning capability

The study sought to investigate the multiple regression model whether it was valid or not. The F statistics was used to determine the model validity. The study found out that the model was valid $F_{(4, 127)} = 32.072$, P=0.000. Therefore, this implies that all the predictor variables are good in explaining variation in organizational performance of commercial state corporations.

4.7.2 Model Summary

The study sought to determine the model's goodness of fit statistics. The findings are presented in Table 4.8

Table 4.8: Model's Goodness of Fit Statistics

Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	.716[a]	.513	.497	.29060

a. Predictors: (Constant), infrastructure capability, process capability, innovation capability, learning capability

The coefficient of determination as measured by the R-square (R^2) (0.513) shows that all the four predictor variables explain 51.3% of the total variation in the organizational performance of commercial state corporations. This implies that the stochastic disturbance error term (ε) covers 48.7%.

4.7.3 Regression Coefficients

The study sought to determine the multiple regression variable coefficients. The findings are presented in Table 4.9.

Table 4.9:Multiple Regression Variable Coefficients

	Unstandardized Coefficients		Standardized Coefficients		
Model	B	Std. Error	Beta	T	Sig.

1	(Constant)	1.330	.688		.195	.846
	Infrastructure Capability	.875	.245	.437	3.141	.004
	Process Capability	.883	.212	.636	2.777	.014
	Innovation capability	.854	.118	.106	2.846	.013
	Learning capability	.861	.163	.400	3.221	.002
a. Dependent Variable: Organizational Performance						

Organizational Performance = 1.330 + 0.875 * Infrastructure Capability + 0.883*Process Capability + 0.854*Innovation capability + 0.861*learning capability

4.8 Discussions of the findings

The study established that when infrastructure capability, process capability, innovation capability, learning capability are zero, organizational performance would be1.330.

The study established that holding other factors constant, a unit increase in infrastructure capabilitywould lead to a 0.875 unit increase inorganizational performance. The findings show a strong, positive and significant connection between infrastructure capability and organizational performance in commercial state corporations in Kenya. This is an indication that improved infrastructure capabilities lead to increased performance in commercial state corporations in Kenya. These findings corroborate with Olaima, AL-Makhadmah (2015) who undertook a study to conclude how infrastructure capability affected the operations of service companies in Jordan. First-hand information was used for the study, which was assembled by aid of enquiry forms. It was established that the infrastructure capabilities had a progressive inspiration on the operations of organizations.

The unit increase in Process Capability would yield a 0.883 unit increase in performance. Song (2008) discovered a strong correlation between knowledge development strategies and organizational improvement. The study found that approaches of creating knowledge were linked positively with knowledge management capabilities and organizational performance. Alwis and Hartmann (2008) assert that knowledge is a significant resource to an organization due to its valuable, rare and inimitable characteristics. Knowledge is acquired through social interaction or invention process and results in successful organizational performance if applied effectively (Alwis& Hartmann, 2008).

The study also established that a unit increase in Innovation capability would result in a 0.854 unit increase in organizational performance. The results showed that there's a significant influence of innovation capability. Furthermore, innovation capability plays a mediating role in improving the relationship between organizational performance and knowledge management capabilities. The resource-based view theory according to Payal and Debnath (2015)suggests that a collaborative innovation helps in obtaining a sustainable competitive advantage.

Finally,the study reveals that learning capabilitywould yield a 0.861unit increase inorgnaizational performance. Theoretically and empirically, organizational learning has been shown to contribute positively to organizational performance. This study found a direct positive relationship between learning capability and organizational performance, not an indirect relationship as found in Akgun et al (2007) study. It confirmed findings from previous studies in this field like those of Real et al (2006), Jimenez-Jimenez and Cegarra-Navarro (2007), Skerlavaj et al (2007) and Pham (2016).

4.9 Conclusion

From the coefficients, it was established that each of the variables;infrastructure capability, process capability, innovation capability, learning capabilityinfluence organizational performance of commercial state corporations in Kenya.

V. SUMMARY, DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1: Introduction

On the basis of the research results and analysis, discussions have been made which are contained in this chapter. The study therefore makes conclusions based on the specific objectives of the study which included to establish the influence of knowledge management capabilities on organizational perfomance of commercial state corporations in Kenya.

5.2: Summary of Findings

The study targeted 48 human resource officers, 48 finance managers and 48 chief executive officers of the commercial state corporations. Of the questionnaires issued, 128 filled in and returned the questionnaires making a response rate of 87%.According to Mugenda and Mugenda (2008), a response rate of 50 percent is adequate for analysis and reporting; a rate of 60 percent is good and a response rate of 70 percent and over is excellent. Based on the assertion, the response rate was considered to be excellent. From the reliability analysis, all the five scales were reliable as their reliability values exceeded the prescribed threshold of 0.7 (Mugenda & Mugenda, 2008).

The demographic information of the respondents included age of the respondents, gender of the respondents, respondents' role in the State Corporations, Highest Level of Education and the number of years the respondents had worked in management roles. From the analysis of findings, majority of the respondents (54, 42.19%) indicated that they were aged between 36 and 45 years old. The study also showed that majority of the respondents (83, 65%) were male while (45, 35%) were female respondents.The study showed that majority (47, 36.72%) of the respondents indicated they were they were finance managers in the commercial state corporations. Closely after, were respondents (45, 35.16%) who indicated that they were human resource managers in the commercial state corporations.The study also showed thatmajority of the respondents (56, 43.8%) indicated that they had a master's degree as their highest level of education. This was closely followed by respondents (36, 28.1%) who indicate that they had a post graduate degree as their highest level of education. The demographic information of the respondents showed that the respondents had the necessary background to give an analysis on the influence of knowledge management capabilities on organizational performance of commercial state corporations in Kenya.

The first objective of the study was to assess the effect of infrastructure capability on organizational performance in Commercial State Corporations in Kenya. From the descriptive statistics, it was clear that most respondents saw that there was a relationship between infrastructure capability and organizational performance of commercial state corporations in Kenya. It was established from the analysis, for instance, that most respondents strongly agreed on the statement; the firm's performance have significant effect on voluntary disclosure. It was also established that a significant number of the respondents strongly agreed that the corporation has elaborate organizational structures for knowledge management. This agrees with a study conducted by Huda (2014) who employed a quantitative study approach utilizing convenience sample techniques to investigate the effect of KM skills on the performance of private institutions in Malaysia, spanning academic and non-academic workers, as well as on postgraduate students. According to the results, it was found that the organizational structure has the greatest impact on the performance of private universities.The findings were asserted based on the mean calculated of more than 3.5 and the standard deviation of less than 1.5 which indicated uniformity in the responses from the respondents. From the findings in the bivariate correlation, the study established a strong positive relationship between infrastructure capability and organizational performance of commercial state corporations (correlation coefficient 0.704**). The study also established that holding other factors constant, a unit increase in infrastructure capability would lead to a 0.875 unit increase in the organizational performance of the commercial state corporations.

The second objective of the study was to determine the effect of process capability on organizational performance in Commercial State Corporations in Kenya. From the descriptive statistics, process capability was seen to have a significant effect on organizational performance of commercial state corporations. For instance, most of the study participants strongly agreed that the corporation has mechanisms which enhances knowledge transfer and application. A significant number of the respondents also strongly agreed to the statement; there are mechanisms of transforming individual knowledge to organizational knowledge. This is in conformation with a study conducted by Alireza (2015) on the role of KM practices in developing human capital in an organization. The study concluded that knowledge production, storage, and application had a statistically significant impact on organizational performance. The findings were asserted based on the mean calculated of more than 3.5 and the standard deviation of less than 1.5 which indicated uniformity in the responses from the respondents. From the findings in the bivariate correlation, the study established a strong positive relationship between process capability and organizational performance of commercial state corporations (correlation coefficient 0.666**). The study also established that holding other factors constant, a unit

increase in process capability would lead to a 0.883 unit increase in the organizational performance of commercial state corporations.

The third objective of the study was to establish the effect of innovation capability on organizational performance in Commercial State Corporations in Kenya. From the descriptive statistics, it was clear that most respondents saw that there was a relationship between innovation capability and organizational performance of commercial state corporations. It was established from the analysis that most respondents indicated that the corporation has support systems for exploring new ideas. It was also established that the respondents strongly agreed that the corporation exploits new strategies for knowledge management. However, this does not concur with a study carried out by Mukhtar and Rosil (2015) that used cross-sectional and quantitative study approaches along with systematic random sampling to ascertain the effect of knowledge management on small manufacturing enterprises in Nigeria, and concluded that organizational performance is indirectly impacted by knowledge management through organizational innovation. The findings were asserted based on the mean calculated of more than 3.5 and the standard deviation of less than 1.5 which indicated uniformity in the responses from the respondents. From the bivariate correlation analysis, a strong positive relationship was established between innovation capability and organizational performance of commercial state corporations (correlation coefficient 0.659*). The study also established that holding other factors constant, a unit increase in innovation capability would result in a 0.854 unit increase in the organizational performance of commercial state corporations.

The fourth objective of the study was to evaluate the effect of learning capability on organizational performance in Commercial State Corporations in Kenya. From the descriptive statistics, it was clear that most respondents saw that there was a relationship between learning capability and organizational performance of commercial state corporations. It was established from the analysis that most respondents strongly agreed on the statement; the corporation is keen in enhancing knowledge sharing. It was also established that the respondents strongly agreed that there is constant upgrade and improvement of problem-solving techniques and capabilities. This agrees with a study conducted by Joy and Jared studied the combined effects of KM skills on the performance of mobile telephone businesses in 2021. The study used a descriptive survey design with 63 heads of departments from Kenya's 21 telephone companies as its target population. The study found knowledge acquisition, knowledge application, knowledge transfer and knowledge protection to have a positive significant effect on performance. The findings were asserted based on the mean calculated of more than 3.5 and the standard deviation of less than 1.5 which indicated uniformity in the responses from the respondents. From the bivariate correlation analysis, a strong positive relationship between learning capability and organizational performance of commercial state corporations (correlation coefficient 0.664*). The study also established that holding other factors constant, a unit increase in learning capabilities would result in a 0.861 unit increase in organizational performance of commercial state corporations.

5.3: Conclusions

The study concluded that infrastructure capability, process capability, innovation capability and learning capability all have a significant effect on the organizational performance of commercial state corporations in Kenya. The study concludes that cultural knowledge management resources are a significant factor that can either promote or obstruct corporate knowledge management, the study argued that the existence of an appropriate knowledge culture encourages employees to create and share ideas and information essential to promoting effective management of the institution.

The study also concluded that the knowledge management process promotes the transition of individual knowledge into organizational knowledge, enhancing organizational performance and competitiveness in the commercial state corporations. The study concluded that approaches of creating knowledge were linked positively with knowledge management capabilities and organizational performance. The study asserted that knowledge is a significant resource to an organization due to its valuable, rare and inimitable characteristics.

The study concluded that knowledge sharing serves as a pathway for innovation, knowledge application and ultimately the competitive advantage of organizations. The researcher found that utilization of effective strategies for knowledge management innovation promoted greater achievements and superior performances of organizations. The study also asserted that learning capability of the firm is its ability to optimally capture knowledge for addressing problems in the future and structuring the collected knowledge for enhanced innovativeness. The study asserted that existence of technical expertise in an organization creates a pool of ideas, skills and knowledge among the employees. Effective utilization of this human resource creates new ideas, new knowledge and diverse problem-solving approaches in the organization. It also promotes innovations, competitiveness and improves organizational performance in the commercial state corporations.

5.4: Recommendations

The study recommended that Senior leadership in the commercial state corporations should champion KM initiatives and set the tone for a knowledge-sharing culture. The study also recommended the state corporations to encourage open communication, collaboration, and a willingness to share knowledge across all levels of management. The study recommended that the commercial state corporations should implement appropriate KM tools and technologies to facilitate knowledge capture, storage, retrieval, and dissemination. This may include intranets, wikis, document management systems, and knowledge repositories. The study also recommended establishing a structured content management system to organize and categorize knowledge assets in the commercial state corporations.

5.5: Recommendations for Further Studies

Based on the literature reviewed in chapter two, the findings of this research in chapter four and summarized in chapter five points to the need for further research in first, as with most research studies, replication of this study for validation purposes. Second, a similar study with a larger number of public sector corporations be sampled to provide an enhanced reflection of the situation on the ground. Third, a similar study using a different sample of private sector firms should also be done. Fourth, the same study can be conducted but with different indicators for knowledge management capabilities, as this would help to improve knowledge of knowledge management capabilities on organizational performance.

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