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Understanding Technological Orientation as a Predictor of Organization Performance: Evidence from State Corporations in the Energy Sector in Kenya

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Abstract:

Kenya's energy sector plays an important facilitative role to other sectors of the economy and thus drives economic productivity and industrial growth. Statistical evidence shows that the key objectives of the energy sector, such as increasing electricity generation capacity, fostering access to services and information, promoting stakeholder satisfaction, and upgrading requisite technology, have not been accomplished in the recent couple of years. For this reason, this study examined the effect of technology orientation on the organization performance of government entities in Kenya's energy sector. The research was based on a resource-based view and a balanced scorecard. The research design was cross-sectional, including inferential and descriptive analysis. The study's target group included 11 Kenyan state corporations with 887 managers. A sample size of 285 respondents was chosen using a stratified random selection procedure. The respondents were managers in the fields of human resources, accounting, marketing, operations, corporate affairs, procurement, and supply chain management, as well as information and communication technology, administration, finance, and business strategy development. A structured questionnaire was used to acquire primary data. Quantitative data were analyzed and presented using figures and tables, as well as descriptive and inferential statistics. Tables and pie charts were used to convey quantitative data. The findings of the research revealed that technological orientation has a positive effect on the performance of state corporations in Kenya's energy sector. The findings of the study contribute to the body of knowledge, thereby validating the propositions of the resource-based view and dynamic capabilities theory. Further, the conclusion of this study forms an important basis for anchoring policy guidelines on strategic orientation practices that foster technological orientation and corresponding resource commitment for promoting communication, automation, technological change, and research and development with the object of optimizing organizational outcomes. Future researchers should execute replicative research in other sectors and industries to validate the findings of this study.

Keywords: Technological Orientation, organization performance and state corporations

1. Introduction

Organizations operate in ever-changing environments characterized by technological, competitive, regulatory, and economic shifts (Wanyeri & Moronge, 2018). As a result, companies are becoming more proactive and dynamic in identifying and implementing strategies that ensure long-term viability through superior performance. Furthermore, organizations must consequently establish an aggressive benefit to outperform their rivals (Zehir, Can & Karaboga, 2015). According to the literature on strategic management, one of the most important issues that must be addressed is organization performance (Sosiawani, Ramli, Mustafa & Yusoff, 2015; Rizan, Bilfas & Purwohedi, 2019). Organization performance refers to a firm's ability to execute its strategy and use available resources effectively (Jenatabadi, 2015). Furthermore, organization performance refers to how a company uses resources, both tangible and intangible, to achieve its goals, as reflected in its performance (Wheelen & Hunger, 2015).

Globally, the energy sector is experiencing substantial changes as countries struggle to decarbonize and establish an extensive energy transition while also attempting to recover from the financial meltdowns brought about by the COVID-19 pandemic. Energy policies and regulations continue to lag market changes, while energy markets are constantly realigned to enable new technologies and business models (World Energy Council, WEC, 2021). Global energy demand is expected to have decreased by 4.5 percent in 2020, compared to 2.5 percent decrease forecast in the statistical analysis of world energy (2021). Furthermore, access to energy is a key driver of economic growth, and energy supply quality is critical. Qatar and Kuwait are among the top ten producers of energy equity, owing to low consumer energy costs and implicit subsidies. However, the energy security of many countries remains poor due to a lack of investment, unreliable

power generation, and a lack of resources. According to Papie, Smiech, and Frodyma (2019), the success of the energy sector in the United States has been characterized by energy-efficient investments known as the rebound effect, in which energy-saving technologies reduce generation costs by 8 percent and pass the savings on to consumers, resulting in lower pricing.

Regionally, African businesses and organizations compete to excel in their operations and activities despite the stiff competition that makes it difficult to compete with and surpass their rivals. Furthermore, approximately 800 million people, mostly in Sub-Saharan Africa, lack access to primary electricity (WEC, 2021). According to Aliyu, Modu, and Tan (2018), the performance of the energy sector demonstrates that demand for electricity in South Africa has increased by more than 10 percent over the last three years, owing to efficient service delivery by the power and lighting company. According to Baker (2020), Ghana requires a significant increase in electricity sector investment in generation and grids, which is currently among the lowest in the world, whereas the Democratic Republic of the Congo stated that unreliable, insufficient, and expensive power generation and distribution across the country has arguably been the region's Achilles heel to higher and more inclusive growth and socioeconomic development (Kusakana, 2016).

According to the East Africa (EA) Regional Energy Outlook (2019), East Africa (EA) currently has a 35 percent access rate to electricity, with 150 million people without access and significant rural-urban disparities in most counties. Kenya ranks highly in terms of the most developed energy sector in Sub-Saharan Africa. According to the International Energy Agency, IEA (2020), Kenya's energy sector has underperformed, particularly in terms of efficiency and management. To address energy efficiency in Kenya, various policies and legislative acts have been enacted, the most recent being the Energy Act (2019) and Petroleum Act (2019). One area identified for research is how state energy corporations can be re-engineered to improve their performance (Auditor General Reports, 2018-2020).

According to the Office of the Auditor General's reports for 2018, 2019, and 2020, some state corporations in the energy sector have consistently worked to establish a strategic position and distinct competitiveness in their operations and activities to improve performance. High-energy prices are a major impediment to a country's economic recovery. These costs discourage foreign direct investment, resulting in a decline in socioeconomic prowess. Statistics show a decline in the achievement of budget absorption rates, stakeholder satisfaction, product and process improvement, and power generation targets. Poor organization performance is the end-result. Numerous reports on the effectiveness of public sector service delivery point to citizens having high expectations. This is further complicated by the fact that private entities have specialized in ensuring high levels of service delivery by their employees. According to a report published by the Kenya Institute for Public Policy Research and Analysis (KIPPRA 2019), citizens, development partners, management, and stakeholders in the energy sector have high expectations for effective service delivery.

1.1. Technological Orientation and Organization Performance

Several previous studies have suggested that the performance of organizations is influenced by various facets of strategic orientation, such as technological orientation (Hakala, 2011; Diba & Omenga, 2019; K'obonyo, 2019; Muithya, Muathe & Kinyua, 2021; Njiru & Kinyua, 2022). Moreover, organizations strive to improve performance by developing effective business strategies that build on existing resources and capabilities while leveraging on opportunities that emanate from changing business conditions (Obeidat, 2015). Technological orientation entails a well-recognized firm-level construct derived from a strategic management perspective and dimension of strategic orientation. According to Zahra and Covin (1993), a group of structure selections regarding aggressive technology posture and automation, and, therefore, the method of innovation and new development is understood as technological orientation. Hult, Hurley, and Knight (2004) explain the meaning of technology orientation as the capability and willingness to acquire considerable knowledge of technology and deploy it into operations and the development of products and processes. Companies with a strong focus do better in business when technology changes quickly, according to past studies, since they can develop new processes, products, and services to meet client expectations (Gatignon & Xuereb, 2007; Al ansari, Altarib and Sardon, 2013).

Organization performance, according to some management scholars, is the most essential factor in evaluating organizations, their actions, and their settings (Short, McKelvie, Ketchen, & Chandler, 2009; Kinyua, 2015). The capability and ability of a company to continuously use existing resources efficiently and effectively in fulfilling its goals and objectives is considered organization performance (Daft, 2000). Organization performance, according to Koontz and Donnell (2010), is a company's ability to achieve a common object. Furthermore, the performance of an organization is comprised of actual results or output vs. expected output, goals, and objectives (Kaplan & Norton, 1992). According to Bernadin (1995), organization performance is the culmination of various efforts to deploy the available resources that are most closely linked to the achievement of the organization strategic objectives, customer satisfaction, and monetary contributions. The outcomes of an organization's performance are expressed in terms of profits and returns on equity for each investment activity.

A vast body of empirical literature provides substantial evidence that evaluating organization performance entails various measures. In their studies, Kinyua, Muathe and Kilika (2015) advocate for using metrics such as customer retention, satisfaction, response times, new product innovation and new processes development. Kirui (2016) posits that goal accomplishment, customer satisfaction, efficiency, relevance, and effectiveness were used as non-financial performance measures. According to Richard (2007), organizational success should be judged in terms of both qualitative and quantitative dimensions of measurement, not just market share, return on investment, and financial profitability. Previously, organization performance was measured using effectiveness, efficiency, relevance, and financial viability, as well as market share, profitability, and customer retention (Kyengo, Muathe & Kinyua, 2019; Oketch, Kilika & Kinyua,

2020). Similarly, organization performance has also been operationalized as customer retention, turn-around time, lead time, rate of defect, employee retention, customer satisfaction, customer loyalty, market share and brand image (Muthoni & Kinyua, 2020; Mbugua & Kinyua, 2020). Non-financial performance indicators such as new processes, product improvement, stakeholder satisfaction, and budget absorption were adopted and operationalized in the current study.

Prahalad & Hamel (1994) and Grinstein (2008) have both hypothesized that technology orientation is concerned with new technology products and services, innovative technology and the provision of solutions that are modern and adept to the market. Automation, on the other hand, is concerned with adopting modern solutions to operate equipment such as modern boilers and heat-treated ovens. It also involves adopting modern networking infrastructure for the operations of the organization (Rifkin & Jeremy, 1995). The aspects of research and development, speed to market, and usage of the latest software and applications are all pointers towards technology orientation (Gatignon & Xuereb, 1997). The use of new technology can assist the company in a variety of ways. Reduced power losses, cheaper operational expenses, lower peak demand, new or upgraded revenue streams, new procedures, enhanced long-term growth possibilities, and increased stakeholder satisfaction are just a few of the objectives that modern technology can assist with.

2. Statement of the Problem

In Kenya, the energy sector has underperformed, particularly in terms of efficiency and management (OAG 2018; 2019; 2020). A review of the report on the evaluation of the performance of state corporations in 2019/2020 depicts a declining trend in performance by state corporations in the energy sector. The economic survey report by the Kenya National Bureau of Statistics for the year 2019 indicates that energy sector objectives such as increasing power generation, budget absorption, increasing stakeholder satisfaction, and improving product and new processes, among others, have not been met, translating to poor organization performance. The escalating cost of energy poses a significant barrier, as it contributes to a loss of foreign direct investment, which has serious implications for socioeconomic development. A situational study of Kenya's energy market (2020) recommended price adjustments and organizational restructuring, among other things.

The energy sector in Kenya faces myriad challenges, including inefficient transmission networks, high cases of low voltage, high costs of the power transmitted, increased cases of transformer and cable theft and high maintenance costs. The Kenyan Government has consistently allocated significant funds to the construction of electricity infrastructure, amounting to approximately Kshs 338 billion and Kshs 339 billion in fiscal years 2019 and 2018, respectively. However, the rate of absorption ranged between 47 and 48 percent, which was low and indicated a downward trend in energy sector growth (Kenya's Economic Survey, KIPPR, 2018; 2020). Kenya Power and Lighting Company Limited (KPLC) generated 11,620 GWh of electricity in 2019, with renewable energy accounting for 86.87 percent of the total; this is more than three times the global average. Annual reports of specific state corporations for 2017 and 2018: Kenya Petroleum Refineries Limited (KPRL) and Kenya Power and Lighting Company Limited (KPLC) profit before tax decreased by 59.7 percent in 2018 to 3.089 billion from 7.656 billion in 2017. Employees and dissatisfied customers lead to poor performance, which could indicate poor non-financial performance. These factors, when considered together, raise the question of what is causing the decline. Is it a matter of human resources? Is it a strategy issue? Is it a problem with the external environment? This background and state of affairs in the energy sector created a need for a study to determine the root cause of the continued decline in the performance of the energy sector. To address this gap, this research was purposed to examine the impact of strategic orientation on organization performance in Kenya's energy sector.

Empirical studies that have been conducted in the energy sector have pointed out gaps in methodologies, knowledge gaps in relation to the performance of state corporations and limited empirical literature. Other industries and sectors of the economy, such as insurance, hotel and manufacturing, have been researched before leaving the energy sector, with limited empirical literature supporting the association between the construct of strategic orientation and organization performance on a global scale and in Kenya. The reviewed literature exposes the fact that knowledge gaps exist in the performance of state corporate organizations, necessitating further research to discover whether the elements studied may be generalized to influence business performance (Wanyeri & Moronge, 2018). Previous studies targeted state corporations but focused on subsectors in the energy sectors without highlighting the unique characteristics of the energy sector. Kirui (2016) studied the impact of strategy in the institutionalization of state-owned corporations' organization performance in the electricity subsector. This study thus sought to bridge the knowledge gap by analyzing the effect of entrepreneurial orientation on organization performance in state corporations in the energy sector in Kenya.

3. Theoretical Review

3.1. Resource-Based View of the Firm

The Resource-Based View (RBV) was pioneered by Edith Penrose (1959). This theory looks at and assesses a company's resources to see how it can maintain a competitive edge over time. RBV is a technique for studying and finding a company's competitive advantages by looking at its unique mix of assets, skills, capabilities, and intangibles (Barney & Hesterly, 2010; Barley, 2011; Pearce & Robinson, 2011). The RBV examines the association between organizational effectiveness and resources, and it can help explain why some companies in the same market outperform competitors by doing things differently (Jena, 2008). The RBV helps explain the origins of the competitive advantage of a firm by the deployment of resources and capabilities (Barney, 1991; Peteraf, 1993). RBV postulates that an organization's competitiveness is driven by its ownership and control of its strategic assets. RBV further posits that for

organizations to attain sustainable long-term performance, they need to fully deploy their resources competently and efficiently.

Performance is the result of efficient deployment of resources and proper utilization of the organizations' resources that must meet the requirements of evaluability, rarity, inimitability, and non-substitutability, according to the Resource-Based View (VRIN). Barney posits that an organization's resource consists of its attributes, successful deployment of its assets, and usage of information, processes and procedures, which must be utilized efficiently and effectively to maximize returns. The RBV theory is not specific on how to execute the processes, even though a framework is normally in place that acts as a guide to the managers to ensure maximum utilization of resources. Furthermore, the underlying RBV assumptions are usually admonished since the competitive advantage arguments are tautological.

The RBV has been challenged as being untestable due to methodological difficulties in evaluating resources, some of which are intangible (Barney et al., 2011). According to Barney, the disparity between RBV and intangible resource measurement raises various questions concerning the validity of empirical testing ostensibly supporting RBV strategy. The competitive advantage of an organization is protected and sustained as long as no imitation or substitution of resources occurs. A strategy driven largely by resources would not yield a competitive advantage until it is executed (Barney, 2014). Furthermore, according to some researchers, this theory does not satisfy the requirements for practical content criterion for hypothetical systems (Priem & Butler, 2001). The hypothesis, according to Priem and Butler (2001), has no management or operational implications.

The Resource-Based View (RBV) as a theory provides a foundation for analyzing the potential of business resources, which is important for this study. This is achieved by illustrating how a company might outperform competitors in the same market. Organizations that adopt strategic orientations can use them to expand and create new resources and capabilities and improve current ones, resulting in improved specific skills and performance. The VRIN (Valuable (V), Rare (R), Inimitable (I), and Non-substitutable (N) aspect of any resource, on the other hand, is the most influential resource-based view, which is required in order to achieve superior performance. Barney (1991) mentions resource immutability barriers, causative ambiguity, a definite historical trajectory, and time compression diseconomies as components that may facilitate development and maintain competitive advantage. Further, this theory provides a useful framework that integrates technological orientation as an intangible resource potential able to influence strategic choices and shape the competitive posture and performance outcomes of an organization.

3.2. The Balanced Scorecard Model

Kaplan et al. (2000) developed the balance Scorecard (BSC) model within the early Nineteen Nineties to assist businesses in tracking their delivery in both financial and non-financial metrics. Many corporations use the (BSC) to speak their vision and goals, connect employees' daily work with company strategy, place products, projects, and services, and track and live progress toward strategic goals. BSC is a management system that can be utilized as a primary organizational framework for major managerial tasks, according to Pearce and Robinson (2011). Pearce and Robinson (2011) explain that BSC gives an overview and explanation that enables consistent strategy development, with the model's ultimate purpose being to quantify the factors that generate value for a company and have a direct impact on performance. BSC ensures that employees' goals, objectives, and behaviours represent the organization's purpose, vision, and underlying values.

BSC brings together corporate executives and local managers to determine what steps must be made to increase organizational efficiency. BSC integrates a spread of business programs, makes the organizational strategy operational by reflecting it in performance targets, creates a way of closeness among employees, and links the corporate level with local managers to see what actions need to be taken to improve organizational efficiency. The BSC has the advantage of incorporating non-financial perspectives, which aids in developing a holistic picture of organizations and understanding non-financial issues that may influence organization performance (Kaplan & Norton, 1992, 2000). BSC also looks to see if strategy performance matches up with strategic focus areas. A balanced scorecard considers various factors from four perspectives: financial, customer, internal, and learning (Kaplan & Norton, 1992). The BSC begins with data collection; the realistic data acquired is then assessed by corporate executives and managers to build a roadmap for future decision-making.

The scorecard transforms an organization's strategy and vision into objectives and metrics in four areas: financial, customer, internal business process, and learning and growth. The first is a financial perspective, which is oriented in the past and does not reveal the current state of the business or future performance expectations. However, financial indicators remain important because improved operating performance does not always imply financial success. The financial performance of an enterprise, such as profitability, is critical to its success and should not be overlooked. The financial objectives should act as the driving force behind all other goals. Profitability, return on assets, return on investment, revenue, and cash flow are all markers of a company's viability (Kaplan & Norton, 2002).

The second perspective is the client perspective, which focuses on key actions and practices that are required to improve the firm's effort to shine at providing the value that customers expect. The BSC evaluates the organization's customer perception. Customer retention, new products, product improvement, client acquisition, profitability, and employee satisfaction are all traditional metrics. The third perspective is the internal perspective, which focuses on the firm's practices that are relevant to achieving client and shareholder objectives. After the fiscal and client perspectives have been defined, the goals and measures for this aspect are established. Traditional metrics in this area include invention, operations, and after-sales service. The fourth aspect is the innovation and learning perspective, which defines

the organization's ability to progress and innovate on a consistent basis. In contrast, the learning perspective focuses on developing goals and actions to promote learning within the organization. This viewpoint considers employee endowment, competencies, information systems, motivation, and alignment.

According to Awadallah and Allam (2015), the educational and growth perspective is vital for strategic management to adjust and lift up intellectual capital performance. The balanced scorecard is a widely used system with its own set of benefits and drawbacks. Previous studies have argued that most of the benefit of the Balanced Scorecard has come from the design process itself since its inception (Schneiderman & Arthur, 1999; Epstein, Marc & Manzoni, 1997). The BSC has the advantage of including non-financial perspectives, which aids in developing an integrated picture of organizations and understanding non-financial aspects that may influence organizational effectiveness (Kaplan & Norton, 1992, 2000). Balanced scorecard practitioners, on the other hand, criticize it for the significant changes that organizations must make in order to implement it. The second criticism focused on the framework's empirical nature and the idea's lack of formal validation when it was first introduced. However, the approach has been criticised for exaggerating internal performance.

Furthermore, the model must be in sync with the organization's strategic objectives, which are usually incompatible. The balanced scorecard is a tool that helps everyone in an organization understand and work toward a single goal. A completely effective scorecard system connects the organization's long-term vision to its business strategy, desired employee behavior, and daily operations. Strategic performance measurements are used to guide decision-making and show progress toward objectives. When a company uses BSC, it can concentrate on the most critical areas of attaining its vision and pleasing customers, stakeholders, and employees. Other benefits include the ability to measure what matters, identify more efficient processes aligned with customer needs, improve prioritization of initiatives and new products, improve internal and external communications, improve strategy and day-to-day Align operations and link budgeting and cost control processes Strategy. Nonetheless, the perspective of the balanced scorecard (BSC) model was relevant to this study and provided a definition of the organization's performance variable. Furthermore, non-financial performance measures were used in this study.

4. Empirical Review

A study by Zafer and Mehtap (2018) established that setting long-term goals may be futile. This was a result of their study on the relationship between company performance, strategic orientations and organizational innovativeness. In their studies, their objectives were to understand how strategic orientations affected organization performance. They reviewed the various orientations, such as technology, market, and organizational innovativeness, as the key determinants of the effectiveness of the organization. This study used a questionnaire survey of 161 manufacturing companies. The study concluded that there was a clear correlation between strategic orientation and organizational effectiveness. Further, the study findings also depicted that product innovation influenced business growth positively. This study focused on technology orientation and market orientation as the key dimensions, while the current study focused on the orientations of entrepreneurial, technology, and market as the key dimensions.

With large Korean enterprises, Shin and Lee (2016) evaluated the impact of important strategic orientations such as customer, competitor, technology and internal/cost orientation on firm innovativeness and performance outcomes. Customer orientation, competition orientation, and technology orientation all positively influence innovativeness, which leads to positive organization performance, according to the findings of the study. However, because the study focused on huge Korean firms, the current study focused on government entities in Kenya's energy sector, indicating a scope gap. Furthermore, neither the study population nor the sample design was specified in the study. This makes it difficult to apply the findings to the current situation.

Wanyeri and Moronge (2018) studied the effect of strategic management options on the performance of Kenyan commercial state enterprises. The study employed a stratified random sampling procedure, with 216 participants chosen and data collected via questionnaires. Self-administered questionnaires were used to obtain primary data. The study employed a descriptive research approach, with 495 senior managers from government entities as the study population. Inferential statistics was used to determine the nature of the relationship between the dependent and independent variables. It was concluded that technological advancements significantly influenced performance. The researchers recommend that the study be expanded in the future to look at how strategic management approaches affect the performance of Kenya's government entities. However, because this study concentrated on Kenya's government entities, its conclusions may not apply to government entities in the energy sector, revealing a gap in the scope. Furthermore, while the previous study used technical innovation, cost leadership, and product diversification as independent variables, the current study used market, technological, and entrepreneurial orientations as operational variables.

In their study on the impact of digital strategic orientation on organizations' performance, Yu and Moon (2021) used 160 survey questionnaires from Chinese businesses. The data from this study was analyzed using Smart PLS3. This study looked into the positive association between digital innovation, digital strategic competency, and organization performance. An empirical analysis of firms that are experiencing or have completed a digital transition revealed the importance of digital competency in this study. As a result, companies must think about how digital competency affects their overall success. The previous study concentrated on customer, competition, and technology orientations, whereas the present study concentrated on market, technology, and entrepreneurial orientations. Another gap identified is the study locale (China), while the current study locale was Kenya.

5. Conceptual Framework

This study hypothesized that technological orientation has a positive effect on organization performance amongst state corporations in Kenya's energy sector. Figure 1 provides a schematic representation of this relationship.

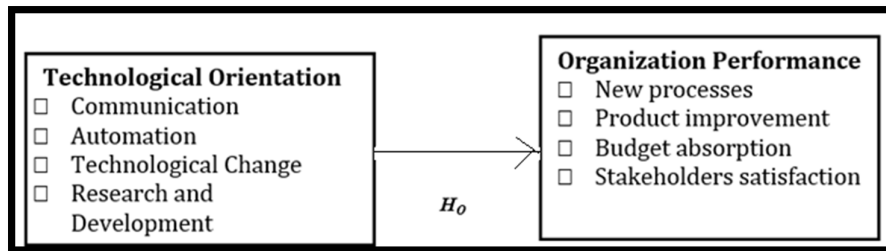


Figure 1: Conceptual Framework
Source: Author (2023)

6. Research Hypotheses

The research hypotheses of this study were:

- H_0 : Technological orientation has no significant effect on organization performance in state corporations in the Energy sector in Kenya
- H_1 : Technological orientation has a significant effect on organization performance in state corporations in the Energy sector in Kenya

7. Research Methodology

7.1. Research Design

Saunders (2011) defines research design as a strategy used by researchers to obtain clear answers to study questions. No single design exists in isolation, and combining various designs in a single study boosts the chances of success (Saunders, Lewis & Thornhill, 2007). The study used the cross-sectional research design to explain certain attributes of individuals or a certain group of individuals. This applied to variables over which the researcher had no control (Lewis, 2015). Sekaran and Bougie (2009) posit that the study would use both descriptive and explanatory design methodologies. According to Saunders, Lewis, and Thornhill (2009), using different designs aids in the triangulation of research findings, which increases the validity of the findings and leads to ideal results. Bryaman and Bell (2015) explain that a descriptive research design consists of an empirical study whose variables the researcher has no direct influence on. Furthermore, descriptive design limits the capacity of the researcher to change the variables, limiting study biases.

A descriptive research approach has the advantage of capturing demographic characteristics and, finally, testing the hypothesis (Cooper & Schindler, 2008). According to Burns and Grove (2007), descriptive design is used to assist researchers in gathering data on variables in their natural environment. Causal research design, also referred to as explanatory research design, deals with how big or complex the cause-and-effect relationships of the study variables are (Saunders et al., 2007). Explanatory research is useful when hypotheses explaining hypothetical interactions between two or more variables have already been created, according to Mugenda & Mugenda (2003). Descriptive and explanatory research approaches, according to Neuman (2006), are appropriate for generating relevant, precise, and accurate information about the phenomena, deriving valid inferences from the facts obtained, and offering as many explanations for the findings as possible. This study used both explanatory and descriptive research designs.

7.2. Target Population

According to the PTPR (2013), the energy sector in Kenya is comprised of eleven government entities. According to the Energy Act of 2019, government entities in the energy sector were divided into four sub-sectors based on their functional mandate to explicitly carry out their mandates. As illustrated in table 1, these categories included petroleum supply and distribution, electricity transmission and distribution, electricity generation, and regulatory sub-sectors. Government entities were divided into four sub-sectors as follows:

- Petroleum supply and distribution: Kenya Pipeline Company (KPC), Kenya Petroleum Oil Refineries Limited (KPRL), National Oil Corporation of Kenya (NOCK)
- Electricity transmission and distribution: The Kenya Electricity Generating Company (KETRACO), Kenya Power and Lighting Company (KPLC), Rural Electrification and Renewable Energy Corporation (REREC)
- Electricity generation: Kenya Electricity General Company Limited (KENGEN), Geothermal Development Government Company (GDC), Nuclear Power and Energy Agency (NUPEA)
- Regulatory: Energy and Petroleum Regulatory Authority (EPRA), Kenya National Energy Board (KNEB) (Energy Act, 2019; Petroleum Act, 2019; Institute of Economic Affairs IEA, 2015).

Categories	State Corporation	Population Distribution (N _i)	Percentage
Petroleum Supply and Distribution	KPC	97	10.9
	KPRL	87	9.8
	NOCK	39	4.4
Electricity Transmission and Distribution	KETRACO	63	7.1
	KPLC	188	21.2
	REREC	75	8.5
Electricity Generation	KENGEN	139	15.7
	GDC	49	5.5
	NUPEA	36	4.1
Regulatory	EPRA	95	10.7
	KNEB	19	2.1
Total		887	100

Table 1: Target Population

Source: MOE (2022)

The unit of analysis in this study was eleven government entities in the energy sector in Kenya. The unit of observation consisted of management staff involved in making tactical and strategic decisions in the eleven state corporations and thus had the information of interest for this study. The population size in this study was 887 managers drawn from the functional areas of accounts, marketing, operations, corporate affairs, procurement and supply chain, information communication technology, human resources, administration, finance and Business strategy development. The distribution of this population in the eleven government entities is displayed in table 2.

7.3. Sample Size and Sampling Procedure

The study employed a stratified proportionate sampling technique to determine the representative sample to make observations. The Yamane (1967) formula was used to calculate the representative sample from the study population of 887 using the formula shown in equation 3.7 for finite population.

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

Where:

n = Sample size

N = Population size

e = Margin of error at 5%

By substituting for population size (N) and margin of error (e), the sample size that is representative in this study was given thus:

$$n = \frac{887}{1+887(0.05)^2}$$

$$= 285$$

Likewise, the sampling factor for purposes of stratified proportionate sampling was given thus:

$$p = \frac{n}{N} = \frac{285}{887}$$

$$= 0.32$$

The sampling factor helped determine the distribution of the sample among the eleven government entities in the energy sector, as shown in table 2.

Categories	State Corporation	Population Distribution (N _i)	Sampling Factor (p)	Sample Distribution (n _i)	Percentage
Petroleum Supply and Distribution	KPC	97	0.32	31	10.9
	KPRL	87	0.32	28	9.8
	NOCK	39	0.32	12	4.2
Electricity Transmission and Distribution	KETRACO	63	0.32	20	7.1
	KPLC	188	0.32	60	21.2
	REREC	75	0.32	25	8.7
Electricity Generation	KENGEN	139	0.32	45	15.7
	GDC	49	0.32	16	5.5
	NUPEA	36	0.32	12	4.1
Regulatory	EPRA	95	0.32	30	10.7
	KNEB	19	0.32	6	2.1
Total		887	0.32	285	100

Table 2: Sampling and Distribution of Sample

Source: Author (2022)

The sample size for observations was 285, as shown in table 2. This sample was proportionally distributed across the 11 government entities in the energy sector. The population distribution for KNEB ranges from 19 to 188. The majority of subjects in the sample distribution are attributed to KPLC, with 60 managers (21.2 percent), while the minority consists of 6 managers (2.1 percent) who are linked to KNEB. The sample distribution matched the population distribution according to stratified proportionate sampling.

7.4. Data Collection Instrument

Creswell (2012) explains that the basic goal of a research instrument is to make data collection from study subjects simpler and easier. To acquire primary data from the research subjects, a structured questionnaire was used. The questionnaire was divided into two sections: general and particular information. The purpose of the general information section was to collect information about the respondents' biographical characteristics. However, the specific information section extracted data that explicitly supported answering the research questions in this study. The structured questionnaire consisted of closed-ended questions that were formulated using a five-point Likert rating scale to gather quantitative data. To acquire information on various areas of the study, the questionnaire was divided into six pieces. The demographic features of the respondents were covered in Section A, while Section B was confined to information on technological orientation. Further, Section B collected information on organization performance.

7.5. Pilot Testing

Ten percent of the study sample, as recommended by Creswell (2003), was used in the pilot study. The subjects for the pilot study were chosen from managers with supervisory roles in the target government entities. This cadre of managers was familiar with the operational practices and processes of the target government entities in the energy sector, making them suitable for a pilot study to validate the data collection instrument. The participants who participated in the pilot study were not to be included in the study target sample.

7.5.1. Validity of the Research Instrument

Cooper and Schindler (2006) define validity as the level of accuracy with which a research tool measures what it is supposed to measure. Another definition by Saunders et al. (2012) defines validity as the level of accuracy of the data-collecting method or procedure in relation to the unit of measurement. A validity test is used to examine how well a test score may be interpreted and used for the purpose for which it was created. Taherdoost (2016) believes that face validity, content validity, and construct validity are all essential aspects of validity to consider while developing a research instrument. It is critical that the set of items used in a research instrument be valid in order for the observed and analyzed data to be applied and interpreted correctly.

Face validity, according to Field (2009), is a measure of how representative and good a research instrument appears to be on its face value. This measures the look, feel, format and language clarity of a questionnaire. Expert opinion from supervisors and faculty members involved in the strategic administration of the research instrument was used to confirm face validity. Construct validity describes how well items in a research instrument translate or transform a concept, idea, or behavior into a functional and operational reality (Taherdoost, 2016). Furthermore, content validity refers to how relevant and representational the items in an instrument are of the goal construct (Straub, Boudreau & Gefen, 2004). Construct and content validity were ensured by conducting a thorough review of the relevant body of existing literature and striking a strong match between theoretical, empirical, and contextual literature.

7.5.2. Test of Reliability

Reliability is concerned with the extent to which a questionnaire reproduces the same results irrespective of the number of trials. The degree to which methods for gathering data or analysis procedures yield consistent results is referred to as reliability. Cronbach's alpha is the most commonly used reliability coefficient, and it estimates internal consistency by assessing how all items on a test relate to each other and to the entire test- internal coherence of data. The researcher used Cronbach's Alpha (α) coefficient to analyze the reliability of the instrument for gathering data. Sekaran and Bougie (2013) proposed that a coefficient greater than or equal to 0.7 is appropriate for assessing and evaluating the tool's reliability for obtaining empirical data. Drawing from these recommendations, the research adopted Cronbach's Alpha (α) coefficient of at least 0.70 to decide on the reliability of the questionnaire. Table 3 provides a summary of these results.

Research Variable	Cronbach's Alpha Index	Decision
Technological orientation	0.960	Reliable
Organization performance	0.963	Reliable
Aggregate Score	0.962	Reliable

Table 3: Summary of Reliability Test

Source: Pilot Data (2022)

Table 3 depicts that technological orientation had the highest Cronbach alpha index of 0.960, whereas organization performance yielded a Cronbach alpha index of 0.963. Apparently, both the constructs had their Cronbach indices exceeding the 0.70 thresholds adopted for making decisions. The two phenomena had their Cronbach index aggregating at 0.962, which essentially exceeded the adopted threshold. This implied that the research instrument had

acceptable reliability levels to deliver observations that were credible for analyzing the cause-effect relationship between the key phenomena in the study.

7.6. Data Collection Procedure

Groves et al. (2009) and Kinyua (2015) consider data collection to be a crucial stage that is useful in generating the required data for analysis. It represents the subject of empirical research that is informed by theory. Research approval and permission were obtained from the government body responsible for research (NACOSTI) commencing with data collection. To obtain feedback from the employees of the government entities, permission was sought from the senior authorities of the government entities. Informed consent was obtained from the respondents. To provide respondents enough time to complete the questions, the questionnaires were distributed via a drop-and-pick technique to all study participants. The completed questionnaires of individual respondents were collected at the agreed-upon time. To boost the response rate, follow-up was done through the respondents' offices. The researcher established a register to ensure all questionnaires were distributed and tracked.

7.7. Data Analysis and Presentation

Saunders (2011) opines that there are two categories of data, namely: quantitative data and qualitative data. Quantitative data is based on numerical meanings; collecting produces numerical and standardized data, and analysis is done with diagrams. While qualitative data depends on meanings expressed via words, non-standardized data requires categorization and conceptualization to be collected. The Statistical Package for Social Sciences was used to analyze the data (SPSS). All received surveys were referenced, and questionnaire items were coded to make data entry easier. After data cleaning, which included checking for data errors, descriptive statistics such as mean, median, standard deviation, frequencies, and percentages for all quantitative variables and information presented in tables and graphs were generated.

Descriptive statistics were used as they allowed the researcher to explain an array of scores or measures meaningfully using a limited number of indices (Wandiga et al., 2019). To uncover meaning, understand it, and draw conclusions based on concepts, the qualitative data was categorized, sorted, coded, and thematically analyzed (Glesne, 2015). The linear regression analysis was used to perform inferential data analysis.

$Organization\ Performance = \beta_0 + \beta_1 \text{Technological Orientation} + \varepsilon$

The coefficient of determination (R^2) was used to measure the extent to which changes in strategic orientation may explain variations in organization performance when testing the model's relevance. All conclusions on inferential statistical analysis were determined at 5 percent level of significance.

8. Research Findings and Discussion

8.1. Response Rate

The survey solicited responses from 285 people working in the energy sector. The response rate is summarized in figure 2.

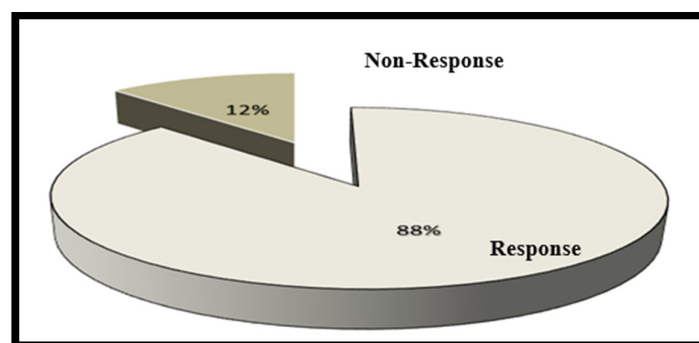


Figure 2: Analysis of Response
Source: Survey Data (2022)

Figure 2 shows that 252 of the 285 questionnaires distributed were returned, giving an 88% response rate. These findings were graded adequate and compatible with Creswell (2003), who decided that a response percentage of fifty percent was adequate and suitable for analysis, sixty percent was good, and a rate of 70% or greater was excellent for analysis and reporting. This study was deemed outstanding and acceptable for analysis and reporting due to its response rate of 88%.

8.2. Characteristics of the Participants

The study collected information on the respondents' gender, age group, academic qualification, duration of employment, position held in the organization, and departments. Table 4 provides a summary of this demographic information.

		Frequency	Percent
Gender			
	Male	132	52.4
	Female	120	47.6
	Total	252	100.0
Age Bracket			
	18 - 24	40	15.9
	25 - 34	52	20.6
	35 - 44	65	25.8
	45 - 54	57	22.6
	55 years and above	38	15.1
	Total	252	100.0
Academic Qualification			
	High School	50	19.7
	Diploma	39	15.5
	Higher Diploma	44	17.5
	Degree	77	30.6
	Masters	42	16.7
	Total	252	100.0
Length of Service			
	0 - 5	56	22.2
	6 - 10	59	23.4
	11 - 15	56	22.2
	16 - 20	49	19.5
	20 and above	32	12.7
	Total	252	100.0
Position Held			
	Top Level	86	34.1
	Middle Level	86	34.1
	Lower Level	80	31.8
	Total	252	100.0
Department/Function			
	Administration	40	15.9
	Human Resources	45	17.9
	ICT	35	13.9
	Finance	31	12.3
	Corporate Affairs	23	9.1
	Marketing	25	9.9
	Supply Chain	20	7.9
	Operations	15	5.9
	Business Strategy Development	18	7.2
	Total	252	100.0

Table 4: Respondents' Demographic Information
Source: Survey Data (2022)

The data in table 4 show that male respondents made up 52.4 percent of the sample, while female respondents made up 47.6 percent. These findings show a balanced representation of male and female study participants. Additionally, the results indicate that, despite the historic national tendency of the energy sector being male-dominated of the energy state enterprises, women have steadily taken over strategic leadership positions in energy firms. Furthermore, the majority of respondents (65%) were between the ages of 35 and 44 (25.8 percent), while the minority of respondents (38%) were 55 or older (15.1 percent). This implies that years of work experience are vital in developing the strategic orientation concept among energy government bodies. This means that the vast majority of respondents had adequate energy industry experience to participate in the study.

According to academic qualifications, the majority of respondents (30.6 percent) have a bachelor's degree, while 16.7 percent have a master's degree. Higher diploma holders made up 17.5 percent of the total, while diploma holders made up 15.5 percent. Respondents with degrees were found to have the highest educational level, attracting synergy of perspectives within government entities in the energy sector. In terms of length of service, 23.4 percent had served between 6 and 10 years, followed by 22.2 percent who had served between 0 and 5 years and 19.5 percent who had served between 16 and 20 years. Only 12.7 percent had served for at least 20 years and above. This indicates a diverse range of experience, which results in a well-rounded view of the research objectives. The distribution of respondents

based on academic and professional credentials clearly demonstrates the range of experience and perceptions across the sampled government entities in the energy sector. Furthermore, the majority of respondents are knowledgeable, implying they were competent to comprehend the study's constructs and thus would provide adequate responses suitable for the study.

Furthermore, the demographic results show a balanced perspective in terms of the position held, with 34.1 percent at the top, 34.1 percent in the middle, and 31.8 percent at the lower level. It was discovered that the majority of those who participated in this study held positions at the top and middle levels, demonstrating that the information provided in this research is a good representation of those who formulate policy and strategic directions. Finally, the study discovered that the vast majority of respondents, 17.9 percent, worked in the human resources department, followed by administration 15.9 percent, information technology (ICT) 13.9 percent, finance 12.3 percent, marketing 9.9 percent, corporate affairs 9.1 percent, supply chain 7.9 percent, operations 5.9 percent, and business strategy development 7.2 percent. It was absolutely necessary that the respondents represent a cross-section of organizational departments in order to provide objective opinions on the study constructs. The demographic profile results revealed a balanced distribution of respondents from the category of the unit of observation, which consists of management staff engaged in formulating tactical and strategic decisions and, as a result, had the information crucial to this study's focus on energy state corporations.

8.3. Descriptive Analysis of Technological Orientation

Technological Orientation (TO) is one of the well-recognized firm-level constructs derived from a strategic management perspective and dimension of strategic orientation. Technology orientation is defined by Hult, Hurley, and Knight (2004) as the ability and willingness to acquire a comprehensive understanding of technology and apply it to operations and product development. Furthermore, Prahalad and Hamel (1994) and Grinstein (2008) asserted that technology orientation is concerned with new technology products and services, innovative technology, and the provision of market-adequate solutions. Technology orientation was operationalized as a set of activities measured by indicators like communication, automation, technological change, and research and development in government agencies in Kenya's energy sector. Table 5 shows the descriptive statistics from the responses regarding the performance effect of technological orientation.

	Mean	Std. Dev
Communication		
Our organization's has updated ICT policy in place	3.130	1.443
Our organizations frequently improve internal processes and information management	3.166	1.399
Our organization has established employee service platforms such as engagement apps and collaboration tools	3.357	1.485
New ways of interaction with clients are frequently developed	3.269	1.506
Aggregate value for communication	3.230	1.458
Automation		
Our organization introduces modern equipment, tools and machines	3.619	1.529
Our organization regularly maintain and service equipment, tools and machines	3.527	1.481
Our organization frequently tries to automate our services and processes	3.654	1.440
Our company has continually invested in scaling up the capability and functionality of the enterprise resource planning systems	3.511	1.567
Our organization rewards automation ideas and projects	3.571	1.490
Aggregate value for automation	3.576	1.501
Technological Change		
Our organization has adopted efficient technologies that support strategy	4.980	0.259
Our organization uses up-to-date technologies	4.924	0.406
The organization has inimitable technologies	4.916	0.352
Our company enhances the effective use of technology	4.968	0.294
Our company exploits technologies in ways that create value for the organization	4.924	0.376
Aggregate value for technological change	4.942	0.337
Creativity		
Our organization uses creative methods for its operations	4.908	0.516
Our organization encourages innovations	4.924	0.461

	Mean	Std. Dev
Our organization supports new ideas	4.920	0.474
Our organization supports creativity	4.900	0.552
There is a commitment to research and development	4.912	0.528
Aggregate value for creativity	4.913	0.552
Overall Scores for Technology Orientation	4.165	0.962

Table 5: Descriptive Statistics for Technology Orientation
Source: Research Data (2022)

With an overall mean score of 4.165 and a standard deviation of 0.962, the results in table 5 indicated that the respondents generally agreed that technology orientation was a driving factor in the government agencies' energy sector in Kenya. The data also revealed that respondents believed communication was fairly important in energy state businesses, as represented by the domain with the lowest mean score of 3.230. However, there were substantial variations among the respondents, with diverse respondents' perspectives on the impact of communication among state corporations in the energy sector, with a standard deviation of 1.458. The respondents' perspectives on automation varied, as depicted by a mean score of 3.576 and a standard deviation of 4.458, meaning that automation was moderately accepted in the state entities. The data analysis results also pointed out that with a mean score of 4.942 and a standard deviation of 0.337, enterprises in the energy industry not only support technological advances but also foster creativity, as shown by the mean score of 4.913 and standard deviation of 0.552. It is also worth noting that the study's aggregate value mean score for technological change and creativity on the five-point Likert scale rounded off to 5. This suggests that a majority of respondents agree that technology orientation is a key factor in determining how well state corporations in the energy sector perform.

8.4. Organization Performance

Organization performance was adopted as the dependent variable. The overall results expected by organizations in the energy sector are good organization performance. Organization performance was operationalized by new processes, product improvement, budget absorption, and stakeholder satisfaction in government entities in the energy sector in Kenya. Table 6 summarizes the average and standard deviation of the metrics of organization performance in the energy sector.

	Mean	Std. Dev
New Processes		
Compliance with the usage of new processes	4.873	0.599
Frequency of usage of new process	4.857	0.589
Satisfaction with achievement of outcomes as a result of usage of new process	4.833	0.604
Effectiveness of the new process	4.853	0.563
Aggregate value for new processes	4.854	0.589
Product Improvement		
Improved Product capability	4.833	0.631
Improved Product utilization	4.813	0.437
Customer retention rate as a result of Product improvement	4.869	0.523
Improved Product defect rate	4.884	0.516
Aggregate value for product improvement	4.850	0.527
Budget Absorption		
Satisfaction with budget formulation	4.924	0.533
Satisfaction with budget implementation	4.908	0.628
Satisfaction with budget execution	4.908	0.656
Level of budget utilization	4.904	0.639
Aggregate value for budget absorption	4.911	0.614
Stakeholders' Satisfaction		
Stakeholders' communication effectiveness	4.928	0.459
Stakeholders' relational benefits	4.940	0.495
Stakeholders' empowerment	4.928	0.392
Stakeholders' rights protection	4.936	0.373
Aggregate value for stakeholder satisfaction	4.933	0.430
Overall Scores for Organization Performance	4.887	0.540

Table 6: Descriptive Statistics for Overall Performance of the Organization
Source: Research Data (2022)

According to the research findings in table 6, the organization's performance has an overall average score of 4.887 and a deviation of 0.540, indicating that respondents strongly agreed that organization performance is an important factor in the success of state firms in Kenya's energy sector. The data also revealed that respondents' perceptions of the performance of their institutions varied very little, as seen by a deviation of 0.540. According to the findings, stakeholder satisfaction had the highest overall average score of 4.933 and the lowest deviation of 0.430. This result indicates that respondents strongly agreed and typically had the same opinions, as evidenced by the low standard deviation of 0.430 for stakeholder satisfaction as a crucial aspect of the organization's performance of government entities in the energy sector. Budget Absorption findings came in second place, with an average score of 4.911 and a deviation from the mean of 0.614, respectively. This suggests that respondents firmly believed that budget absorption is critical to government organizations' success in the energy sector. Further examination found that the new procedures had an aggregate average score of 4.854 and a deviation from the mean of 0.589, indicating that respondents firmly believed that the new procedures contributed to an organization's effectiveness and success.

The aggregate value mean scores for the study's findings for product improvement were 4.850, suggesting that the majority of respondents strongly agreed that product improvement was substantially valued among government entities in the energy sector. The low deviation from the mean of 0.527 suggests that respondents saw product improvement at their institutions as an important factor in the overall success of energy corporations. Finally, the overall result for the study was rounded to 5, with a mean score of 4.887 and a deviation from the mean of 0.540, reflecting an average response on a scale consisting of five Likert points. The outcome of the research findings reveals that new processes, product improvement, budget absorption, and stakeholder satisfaction are key drivers of Kenyan state corporations' performance in the energy industry. An organization's prospective success is heavily reliant on its performance, which pertains to its capacity to effectively implement strategies to achieve organizational goals. Improving organization performance is regarded as a fundamental prerequisite for corporate strategic management, and as a result, businesses devote the majority of their efforts to this goal (Obeidat et al., 2013).

8.5. Linear Regression

Simple linear regression analysis was performed where organization performance was regressed on technological orientation. The resulting statistical output is shown in table 7.

Model	R	R Square	Adjusted R Square	Standard Error of Estimate
1	0.713 ^a	0.509	0.503	0.390

Table 7: Model Summary

a. Predictors: (Constant), Technological Orientation

Source: Survey Data (2022)

Table 7 demonstrates that technological orientation accounted for approximately 50.3 percent of changes in state corporations in Kenya's energy sector, illustrating model fit and how the model equation matches the data. Furthermore, the correlation coefficient (R) is 0.713, showing that technological orientation and organization performance have a high positive link. The remaining 49.7% of organization performance is explained by variables other than those in the model.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	38.845	3	12.948	85.208	0.000b
	Residual	37.534	247	0.152		
	Total	76.379	250			

Table 8: ANOVA^a for Technological Orientation and Organization Performance

a. Dependent Variable: Organization Performance

b. Predictors: (constant) Technological Orientation

Source: Survey Data (2022)

Table 8 shows the analysis of variance for technological orientation and organization performance, which indicates a p-value of $0.000 < 0.05$, demonstrating that the regression relationship was significant in predicting how entrepreneurial orientation affects organization performance in the energy sector in Kenya. The $F(1, 247) = 85.208$ is more than the F critical value, indicating that the model was significant and acceptable for predicting organization performance.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	β	Standard Error	Beta		
(Constant)	1.178	0.350		3.366	0.001
Technological orientation	0.005	0.051	0.106	0.098	0.014

Table 9: Table of Regression Coefficients^a

a. Dependent Variable: Organization Performance

Source: Survey Data (2022)

From the regression table 9, the regression model is summarized below:

Organization Performance = 1.178 + 0.005Technological Orientation

Table 9 shows that if technological orientation was held constant, organization performance in the energy sector in Kenya would be 1.178. The findings also reveal that if all other variables remain constant, increasing technological orientation by a unit value leads to a 0.005 rise in organization performance. Summarized statistics in table 9 show t statistics and the probability-value of 0.098 and 0.014, respectively.

The objective of the study was to determine the impact of technology orientation on the organization performance of state corporations in Kenya's energy industry. The associated null hypothesis was (H02), which stated that technological orientation has no substantial effect on the organization performance of state businesses in Kenya's energy sector. Table 9 shows that technology orientation had a coefficient of $\beta = 0.005$ and a probability value of $0.014 < 0.05$. The null hypothesis was rejected since the probability value was less than 0.05. These findings implied that technology had a positive and significant effect on the organization performance of state corporations in the energy sector in Kenya.

The aggregate average score for the descriptive statistics for the independent variable Technology orientation was 4.178. Technological change had the highest average score of 4.942 in terms of technology orientation attributes, followed by creativity, which had an aggregate average score of 4.913. Communication and automation had average aggregate ratings of 3.279 and 3.576, respectively. According to previous research, companies with a strong focus perform better in business when technology changes quickly because they can develop new processes, goods, and services to fulfil client expectations (Altarib & Sardon, 2013). Grinstein (2008) proposed that technology orientation is concerned with new technology products and services, innovative technology, and the provision of market-ready solutions.

The study anchored on RBV examines the association between organization effectiveness and resources, and it can help explain why some companies in the same market outperform competitors by doing things differently (Jena, 2008). RBV postulates that an organization's competitiveness is driven by its ownership and control of its strategic assets. RBV further posits that for organizations to attain sustainable long-term performance, they need to fully deploy their resources competently and efficiently. State corporations in the energy sector in Kenya have embraced RBV concept to ensure organization performance.

This study concurs with that of Wanyeri and Moronge (2018), who studied the effect of strategic management options on the performance of Kenyan commercial state enterprises. The study employed a descriptive research approach, with 495 senior managers from commercial state businesses as the study population. Inferential statistics were used to determine the direction and size of the link between the dependent and independent variables. The study concluded that performance was impacted significantly by technological innovation.

Another study by Mwangi Kihara (2016) looked at the impact of the execution of strategy on the performance of SMEs in Kenya. His study concluded that technology had a positive association with SME business performance. These findings tally with the findings of this current study. The study recommended that manufacturing SMEs ought to focus on upgrading their technology, equipping their employees with the appropriate tools for their work and ensuring the staff has the right equipment. The report additionally stated that technology was the primary driver of strategy execution, which contradicts the findings of this study, which show that technological orientation had no major effect on the organization performance of state enterprises in the energy sector in Kenya.

9. Conclusion

The primary goal of this study was to analyze the effect of technological orientation on the organization performance of state enterprises in Kenya's energy sector. The researcher hypothesized that technological orientation has no significant effect on the organization performance of state corporations in the energy sector in Kenya. Technological orientation was decomposed into communication, automation, technological change, and research and development, whereas organization performance was indicated as new processes, product improvement, budget absorption and stakeholders' satisfaction. Cross-sectional survey design was used to guide the research strategy, where the sample was selected using proportionate stratified sampling. Quantitative data was collected using a structured questionnaire and analyzed for descriptive and inferential statistics. The data were presented in the form of figures and tabulation. The results of the study show that technological orientation has a significant effect on the organization performance of state corporations in the energy sector in Kenya.

10. Contribution and Recommendations of the Study

The findings of the study contribute to the body of knowledge, thereby validating the propositions of the resource-based view and dynamic capabilities theory. Further, the conclusion of this study forms an important basis for anchoring policy guidelines on strategic orientation practices that foster technological orientation and corresponding resource commitment for promoting communication, automation, technological change, and research and development with the object of optimizing organizational outcomes. Future researchers should execute replicative research in other sectors and industries to validate this study's findings.

11. References

- i. Abdallah, A., Obeidat, B. & Aqqad, N. (2014). The Impact of Supply Chain Management Practices on Supply Chain Performance in Jordan: The Moderating Effect of Competitive Intensity. *International Business Research*, 7, 13–27.
- ii. Agrawal, A. & Knoeber, C.R. (1996). "Firm performance and mechanisms to control agency problems between managers and shareholders," *Journal of Financial and Quantitative Analysis*, 31 (3), pp. 377–397.

- iii. Al-Ansaari, Y., Bederr, H., & Chen, C. (2015). Strategic Orientation and Business Performance. *Management Decision*, 53, 2287–2302.
- iv. Alegre, J., Chiva, R., (2013). Linking Entrepreneurial Orientation and Firm Performance: The Role of Organizational Learning Capability and Innovation Performance, *Journal of Small Business Management* 2013 51(4), pp. 491–507.
- v. Aliyu, A. K., Modu, B., & Tan, C. W. (2018). A review of renewable energy development in Africa: A focus in South Africa, Ghana, Egypt and Nigeria. *Renewable and Sustainable Energy Reviews*, 81, 2502–2518.
- vi. Aloulou, W., & Fayolle, A. (2005). "A conceptual approach of entrepreneurial orientation within small business context," *Journal of Enterprising Culture*, 13(1), 21–45.
- vii. Al-Rfou, N. A. (2012). Competition and Organization Performance: Empirical Evidence from Jordanian Firms, *Journal of Economics*, 3 (1), 13–17.
- viii. Al-Smadi, M. O. & Al-Wabel, S. A. (2011). The impact of E-banking on the performance.
- ix. Amankwah-Amoah, J., & Zhang, H. (2015). Business failure research: a review of the Chinese experience. *International Journal of Foresight and Innovation Policy*, 10(2–4), 180–197.
- x. Ambrosini, V. & Bowman, C. (2003). Managerial consensus and corporate strategy.
- xi. Ameer, R., & Othman, R. (2012). Sustainability practices and corporate financial performance: A study based on the top global corporations. *Journal of Business Ethics*, 108(1), 61–79.
- xii. Amoako, K. Y. (2001). "Fulfilling Africa's Promise" Millennium Lecture at 10 Downing Street, London.
- xiii. Atuahene-Gima, K., Slater, S., & Olson, E. (2005). The contingent value of responsive and proactive market orientations for new product programmed performance. *Journal of Product Innovation Management*, 22 (6), 464–482.
- xiv. Auster, E. & Choo, C. W. (2004). How senior managers acquire and use information in Avci, U., Madanoglu, M., & Okumus, F. (2011). Strategic Orientation and Performance of Tourism Firms: Evidence from a Developing Country. *Tourism Management*, 32, 147–157.
- xv. Aydin, N., Mustafa, S. & Yalama, A. (2007). "Foreign Ownership and Firm Performance: Evidence from Turkey," *International Research Journal of Finance and Economics*, Issue 11 (2007).
- xvi. Ayrga, A. (2011). Is Mauritius Ready to E-Bank? From a Customer and Banking Perspective. *Journal of Internet Banking and Commerce*, 16(1).
- xvii. Baker, L. (2020). The evolving role of finance in South Africa's renewable energy sector. *Geoforum*, 64, 146–156.
- xviii. Baker, W. E., & Sinkula, J. M. (2015). Market Orientation and Organization Performance: *A New Product Paradox? In Creating and Delivering Value in Marketing (pp. 254–254)*. Springer International Publishing.
- xix. Barret, H., Balloun, J., & Weinstein, A. (2005a). Success factors for organization Performance: Comparing Business services, health care and education. *S.A.M. Advanced Management Journal*, 70 (4), 16–28.
- xx. Barrett, A., Balloun, J., & Weinstein, A. (2005b). The impact of creativity on performance in non-profits. *International Journal of Non-Profit and Voluntary Sector Marketing*, 10 (4), 213–223.
- xxi. Bebchuk, L.A., Fried, J. & Walker, D.I. (2002). "Managerial power and rent extraction in the design of executive compensation," *University of Chicago Law Review*, 69, 751–846.
- xxii. Berger, P.G., Ofek, E. & Yermack, D.L. (1997). "Managerial Entrenchment and Capital Structure decisions" *Journal of Finance*, 52: 1411–1438.
- xxiii. Berle, A. & Gardiner, C. (1932). *The Modern Corporation and Private Property.* The Macmillan Company, New York.
- xxiv. Berry, M. J. (1996). Technical entrepreneurship, strategic awareness and corporate transformation in small high-tech firms. *Technovation*, 16 (9), 487–522.
- xxv. Berry, M. M. J. (1996). "Technical entrepreneurship, strategic awareness and corporate transformation in small high-tech firms," *Technovation*, 16(9), 487–498.
- xxvi. Bhuian, S. N., Menguc, B., & Bell, S.J. (2005). Just entrepreneurial enough: the moderating effect of entrepreneurship on the relationship between market orientation and performance. *Journal of Business Research*, 58(1), 9–17.
- xxvii. Bing L., & Zheng P. F. (2011). Relationship between Strategic Orientation and Organization Performance in Born Global: A Critical Review. *International Journal of Business and Management*, 6(3).
- xxviii. Blair, M. (1995). "Ownership and Control: Rethinking corporate governance for the twenty-first century" Brookings Institution, Washington, DC.
- xxix. Bloom, N., Genakos, C., Sadun, R., & Van Reenen, J. (2012). Management practices across firms and countries. *The Academy of Management Perspectives*, 26(1), 12–33.
- xxx. Bogner W., & Barr P. (2000). Making sense in hypercompetitive environments: a cognitive explanation for the persistence of high-velocity competition. *Organization Science II (2)*: 212–226.
- xxxi. Borg, W., & Gall, M. D. (2009). *Educational research: An introduction. (5th ed.)*. New York: Longman.
- xxxii. Brass, D., Galaskiewicz, J., Greve, H., & Tsai, W. (2004). Taking Stock of Networks and Organizations: A Multilevel Perspective. *Academy of Management Journal* 47(6), 795–817.
- xxxiii. Burgelman, R. A. & Grove, A. S. (1996). Strategic dissonance. *California Management Review*, vol. 38, pp. 8–25.
- xxxiv. Burton, R. M., Lauridsen, J., & Obel, B. (2004). The impact of organizational climate and strategic fit on firm performance. *Human Resource Management*, 43(1), pp. 67–82.

- xxxv. Cakar, N. D., & Erturk, A. (2010). Comparing innovation capability of Small and medium-sized enterprises: Examining the effects of organizational culture and empowerment.
- xxxvi. Carter, S. M., & Ruefli, T. W. (2006). Intra-industry reputation dynamics under a resource-based framework: Assessing the durability factor. *Corporate Reputation Review*, 9: 3–25.
- xxxvii. Carton, R. B., & Hofer, C. W. (2010). Organizational financial performance: Identifying and testing multiple dimensions. *Academy of Entrepreneurship Journal*, 6 (1), 1–22.
- xxxviii. Chahal, H., & Kumari, N. (2011). Consumer perceived value and customer loyalty in the health care sector. *Journal of Relationship Marketing* 10(2):88–112.
- xxxix. Chen, H.L., & Hsu, C. H. (2013). Entrepreneurial Orientation and Firm Performance in Non-Profit Service Organizations: Contingent Effect of Market Orientation. *The Service Industries Journal*, 33, 445–466.
- xl. Chiando, M. S. (2017). Influence of selected determinants of strategy implementation on performance of parastatals in the energy sector in Kenya. *Ijsbar Thesis Publication*, 34.
- xli. Chrisman, J. J., Chua, J. H., & Sharma, P. (2005). "Trends and Directions in the Development of a Strategic Management Theory of the Family Firm." *Entrepreneurship Theory and Practice*, 29: 555–576.
- xl. Collier, R. B., & Collier, D. (1991). Shaping the political arena: *Critical junctures, the labor movement and regime dynamics in Latin America*. Princeton University Press, Princeton, Penn.
- xl. Cooper, D. R., & Schindler, P. S. (2006). *Business Research Methods (3rd ed.)*. New York, NY: McGraw-Hill.
- xl. Cooper, D. R., & Schindler, P. S. (2006). *Business Research Methods (8th ed.)* McGraw-Hill: New York.
- xl. Costello, J. T., & McNaughton, R. B. (2016). Can dynamic capabilities be developed using workplace e-learning processes? *Knowledge and Process Management*, 23(1), 73–87.
- xl. Covin, J. G., & Slevin, D. P. (1991). A Conceptual Model of Entrepreneurship as Firm Behavior. *Entrepreneurship Theory and Practice*, 16(1), 7–25.
- xl. Cubbin, J. et al. (1983). "Ownership structure and economic performance in the largest European companies" *Strategic Management Journal*, Vol. 21, Issue 6, 689–705.
- xl. Danciu, V. (2010). The Gravity Law of Marketing – a Major Reason for Change to a Better Performance. *Theoretical and Applied Economics*, vol. XVII (4), pp. 7–18.
- xl. Dess, G. D., Pinkham, B. C., & Yang, H. (2011). Entrepreneurial Orientation: Assessing the Construct's Validity and Addressing Some of Its Implications for Research in the Areas of Family Business and Organizational Learning. *Entrepreneurship Theory Practice*, 35, 1077–1090.
- l. Dess, G. G., Lumpkin, G. T., & Covin, J. G. (1997). Entrepreneurial strategy making and firm performance: Tests of contingency and configurational models. *Strategic Management Journal*, 18(9), 677–695.
- li. Destek, M. A., & Aslan, A. (2017). Renewable and non-renewable energy consumption and economic growth in emerging economies: Evidence from bootstrap panel causality. *Renewable Energy*, 111, 757–763.
- lii. Donaldson, L. et al. (2001): Board Structure, Board Processes and Board Performance: A Review and Research Agenda. *Journal of Comparative International Management*, June 2001.
- lii. Doz, Y., & Kosonen, M. (2008). The Dynamics of Strategic Agility: Nokia's Rollercoaster Experience. *California Management Review*, 50(3), pp. 95–118.
- liv. Drucker, P. (1954). *The Practice of Management*. Harper & Row. ISBN 0–06–091316–9.
- lv. Dziri, R. (2011). *Avoiding strategic drifts in a hypercompetitive market*. Published MBA Master's Thesis, Berlin School of Economics and Law.
- lvi. Ebbinghaus, B. (2005). Can path dependence explain the institutional change? *Two approaches applied to welfare state reform*. MPIFG Discussion Paper 05/2. Max Planck Institute for the Study of Societies, Cologne.
- lvii. Eisenhardt, K. M. & Martin, J. A. (2000). Dynamic capabilities: *what are they?* *Strategic Management Journal*, 21, 1105–1121.
- lviii. Ellis, P. D. (2006). Market Orientation and Performance: *A Meta-Analysis and Cross-National Comparisons*. *Journal of Management Studies*, 43, 1089–1097.
- lix. Ezzamel, M.A. and Watson, R. (1993). (1993). "Organizational Form, Ownership Structure and Corporate Performance: A Conceptual Empirical Analysis of U.K. Companies" *British Journal of Management*, 4(3) PP. 161–176.
- lx. Fahey, L., & King, W. R. (2010). Environmental scanning for corporate planning. *Business Horizons*, Vol. 20, No 4, pp. 61–71.
- lxi. Felix, R. (2015). Market Orientation Plus: Antecedents and Consequences of Market Orientation and Corporate Social Responsibility in Mexico. *Journal of Global Marketing*, 28(3–5), 172–188. doi: 10.1080/08911762.2015.1114693
- lxii. Fitchet, H., & Giraud, L. (2007). *How the information flow is processed in project-based companies and how it affects strategic drift*. Published MBA Thesis: UMEA University.
- lxiii. Franczak, J., Weinzimmer, L. & Michel, E. (2009). *An Empirical Examination of Strategic Orientation and SME Performance*. *Small Business Institute National Proceedings*, 33, 68–77,
- lxiv. Gao, G., Zhou, K., & Yim, C. (2007). On What Should Firms Focus in Transitional Economies? A Study of the Contingent Value of Strategic Orientations in China. *International Journal of Research in Marketing*, 24, 3–15.
- lxv. Gephardt, M. A., & Van Buren, M. E. (1996). The power of high-performance work systems. *Training and Development*, 50:10, pp. 21–36.
- lxvi. Grant, R. M. (2010). *Contemporary Strategy Analysis*. 7th edition. John Wiley and Sons.

- lxvii. Gupta, V. K., & Gupta, A. (2015). Relationship between Entrepreneurial Orientation and Firm Performance in Large Organizations over Time. *Journal of International Entrepreneurship*, 13, 7–27.
- lxviii. Hakala, H. (2011). Strategic Orientations in Management Literature: Three Approaches to Understanding the Interaction between Market, Technology, Entrepreneurial and Learning Orientations. *International Journal of Management Reviews*, 13, 199–217.
- lxix. Hamel, G., & Prahalad C. K. (1994). *Competing for the future*. Boston: Harvard Business School Press.
- lxx. Harrison, F., & Pelletier, M. (2000). Levels of strategic decision success. *Management Decision Journal*, Vol. 38, pp. 107–117.
- lxxi. Heskett, J. (2011). *The culture cycle: How to shape the unseen force that transforms performance*. New Jersey: FT Press.
- lxxii. Hill, C. W. L., & Jones, G. R. (2001). *Strategic Management Theory: An integrated approach*. Boston: Houghton Mifflin.
- lxxiii. Hitt, M. A., Ireland, R. D., Camp, S. M., & Sexton, D. L. (2001). Strategic entrepreneurship: Entrepreneurial strategies for wealth creation. *Strategic Management Journal*, 22, 479–491.
- lxxiv. Hughes, S. (2006). Revise your ethics policy; Reinvigorate your program, *Competitive Intelligence Magazine*, 9 (2), 31–32.
- lxxv. Hull, C. E., & Rothenberg, S. (2008). "Firm performance: the interactions of corporate social performance with innovation and industry differentiation," *Strategic Management Journal* 29, 781–789.
- lxxvi. Hult, G. T., Ketchen, D. J. & Slater, S. F. (2005). "Market Orientation and Performance: An integration of disparate approaches," *Strategic Management Journal*, 26(12), 1173–1181.
- lxxvii. Hult, G. T., Snow, C., & Kandemir, D. (2003). The role of entrepreneurship in building cultural competitiveness in different organizational types, *Journal of Management*, 29 (3), pp.401–426.
- lxxviii. Ireland, R. D., & Webb, J. W. (2007). A cross-disciplinary exploration of entrepreneurship research. *J. Manage.*, 33(6): 891–927.
- lxxix. Ireland, R. D., Kuratko, D. F., & Covin, J. G. (2003). Antecedents, elements, and consequences of corporate entrepreneurship strategy. *Best Paper Proceedings: Academy of Management, Annual Meeting, Seattle, Washington*.
- lxxx. Ishida, D. (2015). The Effect of Proactive and Responsive Market Orientation on Performance. *Journal of Marketing & Distribution*, 17(3), 13-37.
- lxxxi. Iyer, P., Davari, A., Zolfagharian, M., & Paswan, A. (2019). Market orientation, positioning strategy and brand performance. *Industrial Marketing Management*, 81, 16–29. doi: 10.1016/j.indmarman.2018.11.004
- lxxxii. Jaworski, B., & Kohli, A. (1993). Market orientation: antecedents and consequences. *J. Marketing*, 57(3), 53–70.
- lxxxiii. Jennings, D. F., & Lumpkin, J. R. (1989). Functioning modeling corporate entrepreneurship: An empirical integrative analysis. *Journal of Management*, 15: 485–502.
- lxxxiv. Jimenez-Jimenez, D., and Ceggarra-Navarro, J. G. (2007). The performance effect of organizational learning and market orientation. *Industrial Marketing Management*, 36(6), 694–708.
- lxxxv. Jing, Z. & Yanling, D. (2010). "The impact of different types of market orientation on product innovation performance: Evidence from Chinese manufacturers," *Management Decision*, Vol. 48 Iss: 6, pp.849–867.
- lxxxvi. Johnson, G. & Scholes, K. (2008). *Exploring Corporate Strategy; Texts and Cases*. Prentice Hall, New Delhi, 6th edition.
- lxxxvii. Johnson, G., Scholes, R. & Whittington, R. (2005). *Exploring Corporate Strategy. 7th edition*. Harlow, UK: Pearson Education Limited.
- lxxxviii. Kaplan, R. S., & Norton, D. P. (1996). *The Balanced Scorecard*. Harvard Business School Press, Boston, MA.
- lxxxix. Karanja, S. C., Muathe, S. M. A., & Thuo, J. K. (2014). Marketing Capability and the Performance of Mobile Service Provider. Organizations in Nairobi County, Kenya. *International Journal of Education and Research*, Vol. 2, No 5, May 2014.
- xc. Kess, P., & Isoherranen, V. (2014). Business Strategies Analysis by Strategy Typology and Orientation Framework. Management, Knowledge and Learning Conference Proceedings, 25–27 June Slovenia.
- xc. Kiara, R. K. (2017). *Challenges of Implementing Performance Management Systems in Kenyan Parastatals: A Case of Kenya Electricity Generating Company (Kengen)* (Doctoral dissertation).
- xcii. Kinyua, G.M. (2015). *Relationship between Knowledge Management and Performance of Commercial Banks in Kenya*. Doctoral Thesis, Kenyatta University: Nairobi, Kenya.
- xciii. Kinyua, G. M., Muathe, S. M. A. & Kilika, J. M. (2015). Influence of Knowledge Transfer and Knowledge Application on Performance of Commercial Banks in Kenya. *Journal of Emerging Issues in Economics, Finance and Banking*, 4(2), 1648–1660.
- xciv. Kirca, A., Jayachandran, S., & Bearden, W. O. (2005). Market orientation: A meta-analytic review and assessment of its antecedents and impact on performance. *Journal of Marketing*, 69(2), 24–41.
- xcv. Kiveu, C. (2013). *Challenges of implementation of turn-around strategy at the New Kenya Cooperative Creameries (NKCC) in Kenya*. Unpublished MBA Thesis: University of Nairobi.
- xcvi. Knight, G. A., & Cavusgil, S. T. (2005). A Taxonomy of Born-Global Firms. *Management International Review*, 45(3), 15–35.
- xcvii. Kohli, A. K., & Jaworski, B. J. (1990). Market orientation: The construct, research propositions, and managerial implications. *Journal of Marketing*, 54(2), 1–18.

- xcviii. Kothari, C. R. (2008). *Research methodology: Methods and techniques*. New Delhi: New International Publishing.
- xcix. Kumar, K., Boesso, G., Favotto, F. & Menini, A. (2012). Strategic orientation, innovation patterns and performances of SMEs and large companies," *Journal of Small Business and Enterprise Development*, Vol. 19, Iss: 1 pp. 132–145.
- c. Kusakana, K. (2016). A Review of Energy in the Democratic Republic of Congo. In *ICDRE 2016: 18th International Conference on Desalination and Renewable Energy*.
- ci. Kyengo, J. M., Muathe, S. M. A. & Kinyua, G. M. (2019). Empirical Analysis of the Effect of Operational Capability on Performance of Food Processing Firms in Nairobi City County, Kenya. *SSRG International Journal of Economics and Management Studies*, 6(5), 113–124.
- cii. Lee, D. H. (2011). The influence of strategic orientations on business performance and mediating role of entrepreneurial orientation relationship among technology, market orientations and business performance in Korean technology-intensive SMEs (Doctoral dissertation, University of Portsmouth).
- ciii. Liao, S. H., Chang, W. J., Wu, C. C. & Katrichis, J. M. (2011). A survey of market orientation research (1995–2008). *Industrial Marketing Management*, 40, 301–310.
- civ. Lisboa, A., Skarmeas, D. & Lages, C. (2011). Entrepreneurial orientation, exploitative and explorative capabilities, and performance outcomes in export markets: a resource-based approach. *Industrial Marketing Management*, 40(8), 1274–1284.
- cv. Liu, H., Ke, W., Wei, K., & Hua, Z. (2013). Effects of Supply Chain Integration and Market Orientation on Firm Performance: Evidence from China. *SSRN Electronic Journal*. doi: 10.2139/ssrn.2442771
- cvi. Lumpkin, G. T., & Dess G. G. (2006). Clarifying the entrepreneurial orientation construct and linking it to performance, *Academy of Management Review*, 21, 135–172.
- cvi. Lumpkin, G. T., & Dess, G. G. (1996). Clarifying the entrepreneurial orientation construct and linking it to performance. *Academy of Management. Academy of Management Review*, 21(1), 135–172.
- cviii. Mahmoud, M. A., Blankson, C., Owusu-Frimpong, N., Nwankwo, S., & Trang, T. P. (2016). Market Orientation, Learning Orientation and Business Performance. *International Journal of Bank Marketing*, 34, 623–648.
- cix. Mark, T., & Spencer, M. (2008). *Strategy Dynamics Presentation*. Cambridge University Press, Cambridge.
- cx. Masa'deh, R., Obeidat, B., & Tarhini, A. (2016). A Jordanian Empirical Study of the Associations among Transformational Leadership, Transactional Leadership, Knowledge Sharing, Job Performance, and Firm Performance: A Structural Equation Modelling Approach. *Journal of Management Development*, 35, 681–705.
- cxii. Masila, P. (2016). Factors affecting the implementation of electricity power expansion projects in Kenya: a case of Kenya Power and Lighting Company.
- cxii. Mbugua, J. W. & Kinyua, G. M. (2020). Service Differentiation and Organization Performance: An Empirical Analysis of Deposit Taking SACCOs in Nairobi City County, Kenya. *Journal of Business and Economic Development*, 5(2): 64–72.
- cxiii. McGonangle, J. J., & Vella, C. M. (2002). A case for competitive intelligence, *The Information Management Journal*, July/August edition, 35–40.
- cxiv. Miller, J. P. (2000). Small business intelligence: *People make it happen'*, in Miller, JP (Ed.) Millennium intelligence: Understanding and conducting competitive intelligence in the digital age. Medford, NJ, Information Today.
- cxv. Mouzas, S., & Kouchtch, S. P. (2011). The impact of market orientation on the development of relational capabilities and performance outcomes: *The case of Russian industrial firms*. *Industrial Marketing Management*, 40, 44–53.
- cxvi. Muithya, V. M., Muathe, S. & Kinyua, G. (2021). Too Much of a Good Thing? Strategic Innovation Orientation, Customer Satisfaction and Performance of Licensed Microfinance Institutions in Kenya. *International Journal of Economics, Commerce and Management*, 9(6): 287–303.
- cxvii. Mugenda, O. M., & Mugenda, A. G. (2008). *Research Methods: Quantitative and Qualitative Approaches*. Nairobi: Acts Press.
- cxviii. Mutangili, S. K. (2020). Influence of Assertive Leadership on Organizational Development: A Case of Kenya Power and Lighting Company (KPLC). *Journal of Human Resource & Leadership*, 4(5), 21–34.
- cxix. Muthoni, D. M. & Kinyua, G. M. (2020). Corporate Reputation and Firm Performance: An Empirical Analysis of Motor Vehicle Assemblers in Nairobi City County, Kenya. *Journal of Business and Economic Development*, 5(2): 73–81.
- cxx. Mwaura, K. (2010). *The failure of corporate governance in state-owned enterprises and the need for restructured governance in fully and partially privatized enterprises*, Nairobi: Be press.
- cxxi. Njiru, M. J. & Kinyua, G. (2022). Organization Performance as an Outcome of Entrepreneurial Orientation in the Context of Reinsurance Companies in Kenya. *International Journal of Managerial Studies and Research*, 10(2): 51–60.
- cxxii. Noble, C., Sinha, R. K., & Kumar, A. (2002). Market orientation and alternative strategic orientations: A longitudinal assessment of performance implications. *Journal of Marketing*, 66(3), 25–39.
- cxxiii. Obeidat, B., Al-Suradi, M., Masa'deh, R., & Tarhini, A. (2016). The Impact of Knowledge Management on Innovation: An Empirical Study on Jordanian Consultancy Firms. *Management Research Review*, 39, 1214–1238.
- cxxiv. Obeidat, B., Masa'deh, R., & Abdallah, A. (2014). The Relationships among Human Resource Management Practices, Organizational Commitment, and Knowledge Management Processes: A Structural Equation Modeling

- Approach. *International Journal of Business and Management*, 9, 9–26 of Jordanian Banks. *Journal of Michigan Press, Ann Arbor. Internet Banking and Commerce*, 16(2).
- cxxv. Oketch, J. O., Kilika, J. M., & Kinyua, G. M. (2021). The Mediating Role of Strategy Execution on the Relationship between TMT Characteristics and Organization Performance in a Regulatory Setting in Kenya. *Journal of Business and Economic Development*, 6(1): 12–22.
- cxxvi. Olson, E. M., Slater, S. F., & Hult, G. T. M. (2005). The performance implications of fit among strategy, marketing organization structure and strategic behaviour. *Journal of Marketing*, 69(3), 49–65.
- cxxvii. Otiemo, S., Bwisa, H. M., & Kihoro, J. M. (2012). *Influence of Strategic Orientation on Performance of Kenya's Manufacturing Firms Operating Under East African Regional Integration. Intern. J. Bus. Soc. Sci.* 3(5): 46–55.
- cxxviii. Rialp, A., Rialp, J., & Knight, G. A. (2005). The phenomenon of early internationalizing firms: What do we know after a decade (1993–2003) of scientific inquiry? *International Business Review*, 14(2), 147–166.
- cxxix. Scott-Kennel, J., & Giroud, A. (2015). MNEs and FSAs: Network knowledge, strategic orientation and performance. *Journal of World Business*, 50(1), 94–107.
- cxxx. Shannak, R. (2013). Key Issues in E-Banking Strengths and Weaknesses: *The Case of Two Jordanian Banks. European Scientific Research*, 9, 239–263.
- cxxxi. Slater, S., & Narver, J. (2010). The Positive Effect of Market Orientation on Business Profitability: 69–73.
- cxlii. Sørensen, E. H. (2009). Why competitors matter for market orientation. *European Journal of Marketing*, 43(5/6), 735–761.
- cxliii. Taghian, M., & Shaw, R. (2010). Market fit and business performance: an empirical investigation. *Journal of Strategic Marketing*, 18(5), 395–415.
- cxliiii. Theodosiou, M., Kehagias, J., & Katsikea, E. (2012). Strategic orientations, marketing capabilities and firm performance: An empirical investigation in the context of frontline managers in service organizations. *Industrial Marketing Management*, 41,1058–1070.
- cxliiii. Theodosiou, M., Kehagias, J., & Katsikea, E., (2012). Strategic orientations, marketing capabilities and firm performance: An empirical investigation in the context of frontline managers in service organizations. *Industrial Marketing Management*, 41,1058–1070.
- cxliiii. Tutar, H., Nart, S., & Bingöl, D. (2015). The effects of strategic orientations on innovation capabilities and market performance: the case of ASE orientation of airports in Europe's peripheral areas. *Journal of Air Transport Management*, 13(6). *Procedia-Social and Behavioral Sciences*, 207, 709–719.
- cxliiii. Valos, M. J., Bednall, D. H. B., & Callaghan, B. (2007). The impact of Porter's strategy types on the role of market research and customer relationship management, *Marketing Intelligence & Planning*, Vol.25, No.2, pp. 147–156.
- cxliiii. Van Raaij, E. M., & Stoelhorst, J. W. (2008). "The Implementation of market orientation," *European Journal of Marketing*, Vol. 42 Nos 11/12, pp. 1265.1293.
- cxliiii. Venkatraman, N. (2009). Strategic orientation of business enterprises: The construct dimensionality and measurement. *Management Science*, 35(8), 942–962.
- cxli. Wong, K. S., & Tong, C. (2012). The influence of market orientation on new product success. *European Journal of Innovation Management*, 15(1), 99–121.
- cxli. Yang, Y., Wang, Q., Zhu, H., & Wu, G. (2012). What Are the Effective Strategic Orientations for New Product Success under Different Environments? An Empirical Study of Chinese Businesses. *J. Prod. Innov. Manag.* 29: 166–179.
- cxlii. Zahra, S., Sampienza, J.H., Davidsson.P. (2006) Entrepreneurship and Dynamic Capabilities: A Review, Model and Research Agenda. *Journal of Management Studies* 43(4):917–955. DOI:10.1111/j.1467-6486.2006.00616.x
- cxliiii. Zehir, C., Can, E., & Karaboga, T. (2015). Linking Entrepreneurial Orientation to Firm Performance: *The Role of Differentiation Strategy and Innovation Performance. Procedia-Social and Behavioral Sciences*, 210, 358–367.
- cxliiii. Zhou, K.Z., Yim, C. K., & Tse, D. K. (2005). The Effects of Strategic Orientations on Tech- and Market-Based Breakthrough Innovations. *J. Marketing*, 69(2): 42–60.