

**INFLUENCE OF STRATEGY IMPLEMENTATION ON PERFORMANCE OF  
KENYA OWNED STATE CORPORATIONS**

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**A THESIS PRESENTED IN PARTIAL FULFILMENT OF THE  
REQUIREMENTS FOR THE AWARD OF THE DEGREE OF DOCTOR OF  
PHILOSOPHY IN BUSINESS ADMINISTRATION, FACULTY OF BUSINESS  
AND MANAGEMENT SCIENCE, UNIVERSITY OF NAIROBI**

**JULY 2022**

## DECLARATION

I, the undersigned, hereby declare that this doctoral thesis is the result of my original investigation and has not previously in its entirety or in parts been presented to any academic institution for any scholastic award.

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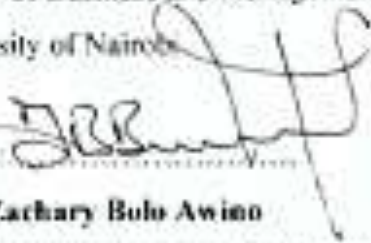
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## **DEDICATION**

This thesis is dedicated to my late dad, Samuel Ndegwa Gichuhi, for instilling in me a passion for academic excellence at a tender age.

## **ACKNOWLEDGEMENT**

First and foremost, I thank the almighty God for this far He has brought me. All praise and honour to Him who never fails. God is faithful indeed”.

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## **ABBREVIATIONS AND ACRONYMS**

<b>CA</b>	Competitive Advantage
<b>CV</b>	Coefficient of Variation
<b>DCT</b>	Dynamics Capabilities Theory
<b>DV</b>	Dependent Variable
<b>IV</b>	Independent Variable
<b>MNCs</b>	Multinational Corporations
<b>MV</b>	Moderating Variable
<b>NPM</b>	New Public Management
<b>PTPR</b>	Presidential Taskforce on Parastatal Reforms
<b>RBV</b>	Resource Based View
<b>SCs</b>	State Corporations
<b>SCA</b>	Sustainable Competitive Advantage
<b>SCAC</b>	State Corporations Advisory Committee

## ABSTRACT

Strategic management research has demonstrated that strategic planning coupled with implementation is instrumental for superior performance. However, strategy formulation on its own may not achieve any results against the turbulent and dynamic nature of the environment, unless backed by a clear and well aligned implementation process. The impact of strategy implementation on organizational achievement could be dependent on other variables such as available resources and operating environment. The main focus of this study was to assess the influence of strategy implementation, organizational resources and operating environment on performance of Kenya owned State Corporations. The study was rooted in the Institutional Theory and supported by Resource Based View (RBV), Dynamic Capabilities Theory (DCT), and the New Public Management (NPM) Theory. The population of this study comprised all the 249 Kenya owned State Corporations. Out of these, 181 managed to respond, representing a 72.7 per cent response rate. Data, collected through a structured questionnaire, was processed for reporting of descriptive and inferential statistics both of which were tied to the specific objectives of the inquiry. The study established that State Corporations formulate strategies and implement them effectively. The regression analysis results revealed that strategy implementation had a positive and significant effect on organizational performance. This finding was well grounded in the DCT, Institutional Theory, NPM theory and was corroborated by numerous other studies. Both organizational resources and operating environment were found to have no moderating effect on the relationship between strategy implementation and performance. However, the complexity dimension of operating environment was found to significantly influence the relationship between strategy implementation and organizational performance. The results also showed that the joint effect of strategy implementation, organizational resources and operating environment was less than the sum effect of the independent variables in isolation. The study has made important contributions to policy design and management of Kenya owned SCs. Managers need to ensure reconfiguration of the structure and culture of the organization in a manner that promotes successful outcomes. They also ought to have a grasp of organizational changes so as to design the necessary structural changes for supporting the strategy implementation process. This may advice on the need for policy thrust to shift more to strategy implementation over and above strategic planning by putting in place measures to monitor and evaluate implementation. The study has also contributed to the existing body of knowledge by interlinking the NPM Theory, DCT Theory, Institutional Theory and the RBV. The study has several limitations, among them the fact that the variables applied only accounted for 51.7 per cent variation in organizational performance. The rest of the performance could be explained by other factors outside this study. The study also focused solely on public organizations which may face different challenges from those faced by State Corporations. The study recommends that future researchers could consider exploring the influence of other factors on organizational performance in addition to replicating the study in organizations within the private sector.

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Background of the Study**

Organizational performance is of paramount importance to managers as observed by various researchers on this subject (Nash, 1983; Ansoff & McDonell, 1990). Consequently, several studies have been undertaken in an attempt to grasp why some organizations outdo others (Ogollah, Bolo & Ogutu, 2011). Strategic management research has shown that strategic planning and implementation is instrumental for superior performance (Brown, Squire & Blackmon, 2007; Odundo, 2012). At the same time, organizational resources are vital for actualizing the process of strategy implementation. This is in line with the research findings of Ombaka (2014) who established that organizational resources significantly and positively influence organizational performance. At the same time, strategy implementation takes place within a context of the operating environment. It is probable that the relationship between strategy implementation and performance could be influenced by the operating environment.

This study was anchored in the Institutional theory because it links organizational structure and institutionalization of strategy to organizational performance. While organizational structures are instrumental for strategy implementation, institutionalization ensures that the strategy is owned by stakeholders. The study is supported by the Resource Based View (RBV) which postulates that possession of valuable and unique resources confers Competitive Advantage (CA) to organizations that possess them.

This view is complemented by the Dynamic Capabilities Theory (DCT) which delves into how organizations combine unique configurations of their competencies into new patterns that enable them to attain desired level of performance (Teece, Pisano & Shuen, 1977). The New Public Management (NPM) articulates the modern approach to public management which is less bureaucratic with a greater focus on performance, customer and business management orientation (Hughes, 2003).

This study was motivated by the fact that State Corporations (SCs) are crucial for economic development through: improved service delivery, creation of employment and collaborations and partnerships. Consequently, they contribute directly to the government's development agenda, particularly in attainment of the Kenya Vision 2030. However, according to the Presidential Taskforce on Parastatal Reforms (2013) many of them have fallen below these expectations and have tended to over rely on the exchequer. The government has entrenched strategic planning policy in all SCs but there is need to find out the degree to which the documented strategies are actualized and whether the extent of implementation has any influence on performance.

Globally, SCs are legal entities that undertake commercial activities in addition to other public policy objectives on behalf of the Government. These entities engage in formulation of strategic plans as elucidated by Poister, Pitts and Edwards (2010) in their research findings. Kenya owned SCs are government owned either partly or fully or managed by Boards or Councils and they play various roles including commercial, non-commercial, oversight and regulatory.



### **1.1.1 Strategy Implementation**

Strategy implementation refers to all the programmes and activities undertaken during the implementation of strategy so as to realize organizational objectives (David, 2003). Noble (1999) argues that various definitions are limited in that they fail to take into account the emerging nature of strategy implementation occasioned by the constantly changing environment. The definition by Noble (1999) takes into account the aspects of cascading, internalizing, ownership, and enactment of strategic plans as key facets of strategy implementation. The observation by Hrebiniak (2008) that positive outcomes of strategic planning are realized through a dynamic and structured process of institutionalization and operationalization of strategy further gives credence to this argument.

Institutionalization implies that the strategy must permeate through the entire operations of the organization by creating the necessary institutional mechanisms for anchoring the strategic plan (Stuart, 1992). Jonathan (2009) observes that “such mechanisms include structures, skills systems, shared values and norms”. Strategy operationalization involves splitting strategic plans into annual objectives, specific policies and action plans so as to ensure that the strategic plan gets actualized.

Though strategic planning is viewed separately from implementation, the two concepts are interdependent. This interdependence implies that overlap between planners and implementers improves the degree of implementation success (Hrebiniak, 2008; Martin, 2010). Strategic planning is unlikely to succeed as a performance management tool unless organizations are keen on its implementation.

Earlier studies in this area expose a relationship between strategy implementation and outcomes but with minimal empirical testing (Poister et al., 2010). Based on these observations, the focus on strategy implementation as a key contributor to positive outcomes is gaining importance. However, the concept of strategy implementation has not been given much attention by scholars in terms of definition (Noble, 1999).

### **1.1.2 Organizational Resources**

Organization resources are those (tangible or intangible) assets which are tied semi-permanently to the organization (Wernefelt, 1984). Helfat and Peteraf (2003) define a resource as an asset or input to production that an organization owns, controls or has access to on a semi-permanent basis. Resources may also be defined as “assets, knowledge, capabilities and organizational processes that enable a firm to implement strategic decisions” (Marino, 1996). This study therefore categorized organizational resources into tangible and intangible resources comprising physical assets, human resource and organizational capital.

Tangible resources include financial and physical assets that are identified and valued in an organization’s financial statements. This includes “capital, factories, machines, raw materials and land” (Itami, 1987). Intangible resources are more difficult to measure and include “employees knowledge, experiences, skills, firm reputation, brand name and organizational procedures” (Johnson, Scholes &Whittington, 2002). These attributes of intangible resources make them organizational specific and more difficult to imitate.

Edith Penrose who pioneered the work on resources viewed resources as “a bundle of potential services” (Penrose, 1959). Developing these ideas further, other scholars on the subject advanced the view that resources are valuable when they accord an organization the ability to develop and execute strategies that lead to production of goods or services at lower costs (Wernerfelt, 1984; Rumelt, 1984; Barney, 1986; 1991). Further, Barney (1991) asserted that resources may be heterogeneous and immobile. This reflects the idiosyncratic nature of strategically valuable resources or how distinctive they are across organizations. Resource immobility demonstrates how difficult it is to transfer strategically valuable resources across organizations while heterogeneity encompasses scarcity and non-substitutability of the same (Barney, 1991). Given that strategic resources are heterogeneously distributed across organizations (Barney, 1991), it follows that resources and sustainable competitive advantage (SCA) are intertwined.

Hoskinsson, Hitt, Wan, and Yiu (1999) argue that the combination of resources in an organization can only be considered valuable if they are in sync with the external environment. As observed by Amit and Schoemaker (1993), an organization may not be capable of effectively exploiting its resources unless it has access to the appropriate capabilities. This argument is echoed by Newbert (2008) in his contention that any resource ought to be deployed via a relevant capability failure to which it remains inactive and thus unable to yield a valuable service. The implication is that the possession of resources may not necessarily confer CA unless combined with the relevant capabilities.

This position is also supported by Makadok (2001) where he highlights the importance of organizations exploiting resources more effectively and with better capabilities than competitors, over and above the mere fact of possessing better resources. Consequently, organizations with fewer resources and appropriate capabilities are likely to outwit those with more resources but lacking relevant capabilities. Clearly, resources and capabilities jointly contribute to the attainment of CA.

### **1.1.3 Operating Environment**

The operating environment refers to the environment in which an organization exercises its mandate and can be disaggregated into two key components; the internal and external environment (Williams, 2009). The internal dimension of an organizational setting is composed of factors that affect strategic planning and implementation, with the subsequent bearing on performance (Amoako-Gyampah, 2003; Ghani, Nayan, Ghazali & Shafie, 2010). These factors include “organizational goals, resources, knowledge, dynamic capabilities, incentives, demographics, and employees skills” (Naumann & Bennet, 2000).

The external environment comprises factors which are beyond the control of the organization, but with a bearing on the way in which it operates. These may include factors that are irrespective of the organization’s operating situation, for example, changes in legislation, social and political policy, and economic trends. Johnson, Scholes and Whittington (2002) contend that forces and events beyond the immediate organizational setting are in constant interaction with each other and do not function as separate entities.

These elements are interrelated and interdependent and consequently, as a shift in one of the elements occurs changes in another element are induced. These changes in turn demand a managerial response that affect organizational competitiveness.

The operations of the public entities are largely different from those of the private sector, a view which is supported by (Hall, 2007). In addition, the environment in the public sector may change due to legislative changes, technology, shifting demographics of the population and natural disaster. Glaister, Omer, Ekrem, Mehmet and Selim (2008) further support the notion that strategic planning is affected more by government through intervention, political instabilities and funding. Accordingly, any change in an organization's operating environment is likely to affect its strategy implementation process and consequently its output.

#### **1.1.4 Organizational Performance**

Performance is usually perceived from different perspectives by organizations and researchers. It may be limiting to restrict it to any specific definition due to its multifaceted and multidimensional nature (Ongeti, 2014). All the same, performance remains the reason of existence of any organization and the most valued subject of interest among stakeholders and shareholders of an organization. Indeed, performance is of paramount importance to managers and this is apparent from various researchers who have paid attention to this subject (Nash, 1983; Ansoff & McDonell, 1990). Traditionally, performance has been weighted against factors that have a bearing on financial performance especially those that lead to profit maximization (March & Sutton, 1997; Venkatraman & Ramanujam, 1986).

However, such traditional financial reporting systems are limited in that they fail to recognize that performance is a broad concept which encompasses a multiplicity of other factors. This perception is echoed by Kennerly and Neely (2003) who postulate that given the dynamic nature of the environment and the high level of competitiveness, financial measures provide insufficient information. Organizations are under tremendous pressure to carry out self-assessment and report on various aspects of performance, including but not restricted to economic performance (Hubbard, 2009). This gap informed the conception of the Balance Score Card, an approach which factors various other measures that have a bearing on performance, over and above those with a direct financial bearing (Kaplan & Norton, 1996). This approach provides managers with a quick but comprehensive view of an organization from four related perspectives that emphasize on the customer, internal processes, innovation and learning and financial performance.

According to Mitchell (2002), organizational performance may be assessed along four dimensions which include; “relevance of the organization to stakeholders’ needs, efficiency of the organization, effectiveness and financial viability of the organization”. Efficiency is concerned with comparison of inputs to performance while effectiveness denotes the ratio of actual input to expected output. In addition, financial viability refers to the “ability of an organization to generate sufficient income to cater for operational costs, liabilities and growth” (Mitchell, 2002). Further, Lee (2008) conceptualizes organizational performance in a more elaborate manner which entails stakeholder satisfaction, organizational communication, team collaboration, strategic performance, knowledge management and organizational growth.

This study adopted a modified version of Mitchell's (2002) definition where organizational performance was conceptualized along three dimensions namely; financial performance, efficiency and organizational relevance.

### **1.1.5 Kenya Owned State Corporations**

Globally, State Corporations (SCs) are legal entities that undertake commercial activities in addition to other public policy objectives on behalf of an owner, in this case, the government. They vary in terms of the government stake in ownership, with some being fully owned by the government while others are partially owned. Jonathan (2009) in a study carried out in China established that SCs engage in multiple and sometimes conflicting activities such as providing low cost telephone services.

The Kenya owned SCs are established by the State Corporations Act Cap 466 and are either government owned or managed by Boards or Councils. They play various roles including commercial, non-commercial, oversight and regulatory. The enactment of this Act was instrumental in creating a policy and regulatory framework for oversight of SCs. The SCs Advisory Committee (SCAC) was also set up as an independent agency whose mandate includes formulation of general guidelines on management of SCs.

According to PTPR (2013), Kenya owned SCs are mandated to: promote economic growth and development, build capability and technical capacity of the State, improve service delivery, meet basic needs of citizens, create employment opportunities and promote international partnerships. Their performance is therefore very crucial for the government, particularly in supporting its development blue print, Vision 2030.

However, the report observed that “the current number of SCs is unsustainable since half of them rely on the exchequer” (PTPR, 2013). In addition, the report indicated that there was a proliferation of SCs which had resulted in duplication and overlapping of functions with the resultant inefficiency in management of resources. Consequently, there is still a lot of room for improvement in as far as contribution to the economy is concerned.

## **1.2 Research Problem**

Strategic planning and implementation is instrumental for superior performance (Brown, Squire & Blackmon, 2007). However good a strategy is, it may not achieve any results against the existing dynamic environment, unless backed by a clear and well aligned implementation process. Strategy implementation is therefore as vital as strategic planning as far as organizational performance is concerned (Pryor, Anderson, Toombs & Humphreys, 2007; Favaro, 2015). Though scholars have attempted to explain variation in organizational performance by carrying out empirical studies, those linking strategy implementation to performance are quite few (Poister et al., 2010). Part of the empirical evidence reviewed by this study indicates that strategy implementation significantly and positively influences organizational performance (Njoroge, Machuki, Ongeti & Kinuu, 2015; Mwangi, Kariuki & Muturi, 2020). However, the results on the influence of strategy implementation on organizational performance are inconclusive e.g. Waititu (2016) reported mixed results on the impact of strategy implementation on performance of commercial banks in Nairobi County; Kipkorir and Ronoh (2017) study also revealed mixed results on influence of implementation of strategies on performance of non governmental organizations based in Kericho County.



Further empirical evidence has demonstrated that organizational resources have a significant and positive influence on organizational performance (Ombaka, 2014). At the same time, research has established that environmental context influences organizational performance (Machuki & Aosa, 2014; Murgor, 2014). However, most of the studies have focused on the direct influence of organizational resources and operating environment on organizational performance. In the study by Ombaka (2014), organizational resources was conceptualized as an independent variable while in an earlier study by Machuki and Aosa (2011), external environment was an independent variable. From the studies reviewed, the evidence on the moderating role of organizational resources and that of operating environment on the relationship between strategy implementation and organizational performance is scanty. It is also apparent from the research that no attempt has been made so far to uncover whether strategy implementation, organizational resources and operating environment would reinforce organizational performance if they were acting jointly. This study therefore sought to fill this gap.

According to the PTPR (2013) Kenya owned SCs were established so as to: promote economic growth and development, build capability and technical capacity of the State, improve service delivery, meet basic needs of citizens, create employment opportunities and promote international partnerships. Their performance is therefore very crucial for the government, particularly in supporting its development blue print, Vision 2030. However, there is still a lot of room for improvement in as far as contribution to the economy is concerned.

The PTPR (2013) further observed that there was a proliferation of SCs which had resulted in duplication and overlapping of functions with the resultant inefficiency in management of resources. Odundo (2012) cited managerial incompetence, corruption, weak governance structure and financial mismanagement as factors which may contribute to declining performance of Kenya owned SCs. On its part, the government has put in place performance management measures including strategic planning and performance contracting in all government Ministries, Department and Agencies.

Contextually, empirical studies on strategy implementation have been undertaken but majority of them were conducted in developed countries. Lehner's (2004) study was carried out in Austria, Shah's (1996) study was based in India, Boyne, Gould-Williams, Law and Walker (2004) study was conducted in in Britain while those by Hendrick (2003); Campbell (2002); and Poister and Streib (2005) were carried out in the United States of America. Okumus (2003) asserts that most studies on enactment of strategy were conducted in America and Britain. Consequently, it may be misleading to generalize the outcome of these studies to the Kenyan context due to different levels of political and economic development in these countries. Studies on strategy implementation carried out in Kenya have tended to focus more on the private sector which experiences a different operating environment from that of the private sector. At the same time, none of the studies reviewed have contextualized the variables used in this study in the same way for Kenya owned SCs.

A closer perusal of the above studies reveals methodological gaps as well. A number of researchers used different methodologies: Newbert (2008) applied a longitudinal study while Gakure, Muriu and Orwa (2013) applied an exploratory study.

Campbell's (2002) research was a case study while Waweru (2011) and Munyoki (2011) used the triangulation technique in which multiple methods were applied. In terms of data collection, Mkalama (2014) and Ongeti (2014) used secondary data on financial performance. This study therefore adopted the cross sectional survey design as such studies representing the whole population are effective in relationship studies (O' Sullivan & Abela, 2007).

In view of the foregoing, the extant research has made little attempt to uncover how strategy implementation, organizational resources and operating environment function jointly to shape performance. This study sought to investigate how the four elements interact within the confinement of Kenya owned SCs by responding to the question: what is the influence of strategy implementation, organizational resources and operating environment on performance of Kenya owned SCs?

### **1.3 Research Objectives**

This study broadly sought to investigate the influence of strategy implementation, organizational resources and operating environment on performance of Kenya owned State Corporations. The study specifically narrowed down to the following specific objectives:

- i. To establish the effect of strategy implementation on performance of Kenya owned State Corporations.

- ii. To establish the influence of organizational resources on the link between strategy implementation and performance of Kenya owned State Corporations.
- iii. To determine the influence of operating environment on the relationship between strategy implementation and performance of Kenya owned State Corporations.
- iv. To determine the joint effect of strategy implementation, organizational resources and operating environment on performance of Kenya owned State Corporations.

#### **1.4 Value of the Study**

The results yielded particularly those concerning the influence of strategy implementation and organizational performance contributed to the theories on which it was based. This set of theories comprised the Institutional Theory, RBV, DCT and the NPM theory. This study therefore aimed at harmonizing these theories further by providing a framework that linked strategy implementation, organizational resources, operating environment and performance. An understanding of the constructs in an integrated framework and their influence on organizational performance may empower managers to make effective strategic decisions.

This study contributes to managerial practice in the sense that strategy implementation and management of organizational resources as well as ensuring that organizations exist in harmony with the external environment are management practices. It is critical that all these activities be tailored towards achieving excellent outcomes. The results of this study therefore could pave the way for establishing a proper linkage of the variables with a view of enhancing organizational performance.

The findings provide crucial information to policy makers, especially the government in formulation of sound policy guidelines to ensure optimum performance by all public organizations. The study also enriches the reservoir of knowledge on how strategy implementation, organizational resources and operating environment shape the performance of Kenya owned SCs.

This is accomplished by augmenting the empirical studies done so far on the contribution of strategy implementation to organizational performance. The study contributes to our understanding of why performance tends to vary markedly from organization to organization despite them being part of the same industry. Academically, the findings serve to explain this heterogeneous performance through the testing of the conceptual linkages between the variables considered in this study.

### **1.5 Organization of the Study**

The first chapter includes the description of the conceptual background of study variables, contextual background of Kenya owned SCs, the research problem, the objectives and usefulness of this inquiry. Chapter two offers an extensive review of the existing body of knowledge and the alignment among the key study variables as well as emerging research gaps. The chapter also presents a conceptual model elaborating the relationship between strategy implementation, organizational resources, operating environment and performance.

Chapter three deals with the methodological steps undertaken in effectuating this study. Details regarding the research philosophy and design, population, reliability and validity, data collection and methods of analysis are also discussed. In addition, the justification for selection of any particular method is provided.

Chapter four focuses on the presentation of the results and findings obtained from analysis of the data gathered in this study. These findings report on the response rate attained, profile of the surveyed organizations and the manifestation of study variables in the organizations.

Findings obtained from testing the relationships hypothesized in this study using inferential statistical tools are also presented in this chapter. Chapter five provides details on interpretation of the findings and relates them to the theoretical perspectives that underpinned the study in addition to comparing them with the findings of other studies. Lastly, chapter six provides a summary of pertinent findings, conclusions reached, implications of the findings, limitations that must be taken into account when interpreting the findings and points of departure for future studies.

### **1.6 Chapter Summary**

This chapter has sought to provide a definitive insight into the context of the study and delineated the concepts of strategy implementation, organizational resources, operating environment and performance. The chapter also offered a glimpse of the study's context, which was Kenya owned SCs. An exposition of the research problem was also offered, followed by objectives and the importance of the findings.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter exposes the extant literature on the key sub topics of the proposed research. It starts with a presentation of the theoretical underpinnings of the study as well as taking stock of the existing empirical literature on the relationships as expressed by the hypotheses. This sheds light on the prevailing knowledge on the subject and exposes the existent gaps. The review delves into four key theories comprising Institutional Theory, Resource Based View, Dynamics Capabilities Theory and the New Public Management Theory. It identifies the Institutional Theory as the one on which the study is anchored. An explanation is also offered as to why the rest of the theories have been chosen to support the proposed study.

The chapter further explores how organizational resources and operating environment independently influence strategy implementation. It then narrows down to exposing the existing literature depicting the joint impact of organizational resources and operating environment on strategy implementation. The review covers various empirical studies carried out in different contexts thereby unearthing several knowledge gaps.

#### **2.2 Theoretical Foundations**

This study is rooted in the Institutional theory and supported by the RBV, DCT, and NPM theory. The Institutional theory is the overarching theory as it links organizational structures to operational efficiency and consequently performance, while taking into account the process of institutionalization.

The RBV is chosen because of its contention that organizations within an industry possess resources which are unique and not perfectly mobile across firms. The DCT views organizational capabilities as instrumental in conferring on organizations a competitive edge. For the SCs, organizational capabilities can be viewed as the internal and external organization specific competencies that are vital in addressing the changing environment. The NPM theory articulates the modern approach to public management as opposed to public administration. By linking these theories, the study purposed to explicate the mechanisms through which strategy implementation, organizational resources and the operating environment interact to define the direction of performance.

### **2.2.1 Institutional Theory**

This theory attempts to answer the question: Why do firms in a particular industry or field tend to look or operate in a similar manner? (DiMaggio & Powell, 1983). At its core, the theory argues that organizational structure and routines in most cases happen to derive meaning and reach stability in their own right, instead of their effectiveness and efficiency in achieving desired outcomes (Lincoln, 1995). During the early phases of the organizational lifecycle, there are numerous and different organizational structures that can be adopted. However, this changes over time, as variation of structures and processes reduce. The theory postulates that institutional structures are pivotal in the environment within which firms operate. Institutions refer to “regulative, normative, and cognitive structures and activities that provide stability and meaning for social behavior” (Scott, 1995, p. 33).



Institutions include, but are not limited to, laws, social norms, culture, ethics and regulations. These institutions exert a form of social pressure (isomorphism) on firms that drive them to conform to other firms that are facing the same set of social pressures (Hawley, 1968). DiMaggio and Powell (1983) suggested that the isomorphic pressures exerted by institutions can be disaggregated into three distinct types; coercive, mimetic and normative. Coercive isomorphism represents pressure emanating from entities that control resources, which are critical for a firm's survival. Mimetic isomorphism signifies the pressure that arises from imitating other better performing firms particularly when a firm is facing deep uncertainty on what to do. Normative isomorphism denotes the pressure that springs from conforming to the established professional standards and norms set by regulatory authorities or standard-setting bodies.

New organizational structures, more often than not, are not spawned out of how much underutilized resources are available. Rather, new structures develop once they are recognized as legitimate by society (Aldrich & Fiol, 1994). Legitimacy is the degree to which a firm's functions, operations and practices are in line with the values and norms enacted by internal and external stakeholders, as well as, the overarching social patterns, beliefs and norms (Kostova, Roth, & Dacin, 2008; Sonpar, Pazzaglia, & Kornijenko, 2010). When organizations align their structures and processes closely to the institutional elements, they are rewarded accordingly. In particular, high-conforming firms gain more legitimacy, acquire more resources and secure more survival capabilities (Oliver, 1997).

The institutional theory further holds that the institutional pressures affect firms on three levels: individual, organizational and inter-organizational (Oliver, 1997). The first level, individual, occurs when managers submit to the reigning norms, values, customs and beliefs, both deliberately or automatically (Berger & Luckmann, 1967). At the organizational level, a firm's routine and processes are embedded in the prevailing shared cultural belief systems and social norms. At the inter-organizational layer, influences from the governmental regulatory demands, industry forces and expectations from the wider society dictate which organizational behavior pass as acceptable or unacceptable. It is at the inter-firm level that firms are pushed to be homogeneous in their organizational structures (DiMaggio & Powell, 1983).

Proponents of the theory are particularly concerned with those organizational forms and customs that are lack any apparent technical or economic purpose. For instance, a firm may choose to keep an undependable supplier simply out of routine, or put differently, because that "has always been the norm." An action becomes "institutionalized" when the sole reason it is carried out is simply because "others are doing it too." Advocates of the institutional theory postulate that a wide variety of firm actions and routines are often taken for granted by managers and, with the course of time, cease to be questioned or challenged (Oliver, 1997). Suddaby (2010) highlights that proponents of the theory tend to misconstrue the central ideas presented in the seminal article of DiMaggio and Powell (1983). In the paper, DiMaggio and Powel asserted that isomorphism happens to firms within their institutional contexts.

Suddaby notes that researchers of this theory mistakenly took the work to imply that firms become isomorphic with each other and in the long run, all become undifferentiated and that firms are merely passive actors with respect to the changing factors in their settings (Suddaby, 2010). In reaction to this criticism, Di Maggio (1988) had argued that firms are not dormant in the face of environment forces. He emphasized that firms respond in creativity-driven ways that seek to challenge the organizational status quo, in a process he termed “institutional entrepreneurship.” The institutional entrepreneurs are thus individuals who seek to devise new business ventures or reposition existing ones within their respective competitive domains. These actors may range from individuals, groups, organizations or clusters of organizations, but they must institute and actualize differing strategies (Battilana, Leca, & Boxenbaum, 2009; Garud, Hardy, & Maguire, 2007). In light of this development, proponents of the theory assessed how firms can function as agents of age. For instance, Oliver (1991) investigated ways through which firms can conform or desist from submitting to market pressures. He observed that in face of institutional pressures, firms may respond in a number of ways including; acquiescence, compromise, avoidance, defiance, or manipulation.

Scholarly research on the institutional perspective underwent significant shifts in the late 1970s up until the early 1980s. Before this period, advocates of the classical institutional perspective focused on topical issues such as alliances and coalitions, competing values, power and informal systems (Greenwood & Hinings, 1996). Selznick (1957) is frequently cited as an authoritative source and strong proponent of the old paradigm of institutional perspective.

The radically new approach to institutional theory tends to probe firms at the field level against a backdrop of both competitive rivalry and collaborative endeavours with other firms, and dwells on legitimate and the intangible elements that are often overlooked or taken for granted by managers.

Suddaby (2010) recommended four focal areas of research on the institutional perspective; language, work, categories and appearance. In their research, Heugens and Lander (2009) identified a series of controversies that have engulfed the application of the institutional perspective. The first disagreement relates to the superiority of structure over agency. The debate surrounding this issue examines whether organizational forms and routines emanate from the larger societal factors or from a firm intentionally creating them. The second dispute is concerned with the impact of conformity on performance outcomes. Third is the debate over the effect of intra-field variability on the degree to which firms implement structures and processes that are homogeneous to those of their peers, and the pace at which they do so.

While there is considerable consensus in the extant literature on the institutional theory with respect to the advantages of legitimacy, there are few exceptions. For instance, Kraatz and Zajac (1996) found insufficient evidence backing the constraints of legitimacy. In their study Phillips and Zuckerman (2001) noted that it is the middle-level players who feel the compulsion to conform so as to acquire resources. High-level players enjoy high reputational standings that afford them the freedom to diverge from the norm, while low-level players have to try to get the best out of any situation in order to survive.

The logic behind shifting from classic institutional perspective to the new institutional theory has been challenged by some researchers (Koelble, 1995; Selznick, 1996). The two approaches possess their respective advantages, as well as shortcomings. Rather than discarding the old approach, the two ought to be combined into one comprehensive theoretical perspective. Further criticism of the theory relates to the measurement or operationalization of institutions.

This is echoed by Peters (2000) who claimed that researchers have paid little attention to measurement imprecision associated with institutions. In the same light, Suddaby (2010) observed that research on institutional perspective moved from treatment of organizations as “passive dopes” to “hypermuscular supermen” (p. 15). Any variation, no matter how minimal, is viewed as “institutional,” and any change agent is considered an “institutional entrepreneur.” Dacin, Goodstein, and Scott (2002) cautioned that research focusing on institutional theory should only consider cases of notable and profound changes, and not simply minute changes.

Critics have also argued that the mechanisms underlying institutionalization are still inadequately addressed (Phillips, Lawrence, & Hardy, 2004). The theory concentrates mainly on the implications of institutionalization but offers little insight regarding the process through which firms become institutionalized. This has resulted in the view of a firm as ‘black box’ devoted entirely to conversion of inputs to outputs. Amenta (2005) views organizations as social structures which are dynamic and tend to operate with utmost flexibility.

Proponents of institutional theory argue that organizational behaviour is structured around three main institutional pillars namely regulative, normative, and cognitive. These aspects, coupled with the adequate resources have a bearing on organizational resilience and performance. The Institutional theory also postulates that firms are vibrant enough to respond to ever changing demands emanating from a rapidly changing environment. Such environmental pressures elicit varied responses as organizations seek survival and supremacy in their industry (Scott, 2004).

Organizational structures are critical in enhancing efficiency and performance through the processes of operationalization and institutionalization. Scott (2004) further argues that institutional managers as institutional actors have the mandate and ability to interpret strategic stimulus and therefore develop and implement strategic responses. Chadee and Roxas (2013) recognize the contribution of institutional environment to strategy by bringing into focus the role of institutional structures in determining an organization's strategic focus. The institutional theory therefore clearly exposes the influence of strategy operationalization and institutionalization on firm performance.

### **2.2.2 Resource Based View**

The RBV represents one among the several theoretical perspectives that have attempted to elucidate why performance differs across firms. At its core, the RBV postulates that firms are bundles of resources that have the potential to endow an organization with the competitive advantage of outperforming rivals.

The foundations of the RBV were laid by Edith Penrose, who in her seminal work, remarked that a firm is an “administrative organization and a collection of productive resources” and viewed resources as “ a bundle of potential services” (Penrose, 1959, p.24-25). According to her analysis, the nature and configuration of resources varies from firm to firm, which means that firms should be treated as heterogeneous.

This stance stands in sharp contrast to the conventional claim of firm homogeneity within industries, which is assumed to be achievable through inter-organizational competition. Although Penrose is considered one of the pioneers of the RBV, the line of thinking that the source of growth and added value should be sought within it’s own internal environment has links stretching as far as back as Coase (1937). Penrose’s ideas were to remain more or less dormant for twenty years before extensions and modifications to the ideas started to appear in the mid 1980s to around the early 1990s (notably Wernerfelt, 1984; Rumelt, 1984; Barney, 1986; 1991). Barney (1991) is credited with the first full development of the RBV, that is, the first paper that draws together all of those elements that would be considered indispensable in the RBV.

Before delving deeper into the fundamental tenets of the RBV, just like any other theory, it is paramount to begin by delineating some of the critical terms associated with the theory. First among these terminologies is “resource.” While several early writers have endeavoured to define the term in the past (Rumelt, 1984; Wernerfelt, 1984; Barney, 1991), the present usage of term suggests the following meaning: tangible and intangible assets that companies systematically employ and deploy to craft and execute their strategies.

The perceived value of these assets which could be economic or strategic, or both, also tends to fluctuate. Broadly, resources are perceived to be valuable when they accord a firm the ability to develop and execute strategies that lead to production of goods or services at lower costs and/or boosting the firm's returns had the resources not been employed. This echoes Wernefelt (1984) view that resources portray the strengths of a firm. The tangibility of resources is typically a matter of degree and thus not a binary distinction.

Resources that are often more tangible or concrete are defined to include, but not limited to, a company's physical assets such as machinery and buildings and financial capital such as earnings, equity and debt. On the other hand, assets with less tangible aspects include, but are not limited to, a company's brand image, human resource skills and knowledge, firm's culture, as well as processes and procedures (Wernefelt, 1984).

Another critical term associated with the theory is 'capabilities.' Early writers such as Caves (1980), Rumelt (1984) and Wernefelt (1984) did not distinguish between resources and capabilities. In their stances, these writers envisaged capabilities as a resource type. It was only later with the works of Hill and Jones (1992) and Harrison, Hitt, Hoskisson and Ireland (2001) that distinctions between capabilities and resources were outlined. These writers pointed out that resources denote a firm's fundamental financial, physical, individual and organizational endowments, while capabilities represent those attributes that allow a firm to capture, generate or exploit advantaged opportunities embedded in its bundle of resources.



In nature, capabilities are thus not directly observable or quantifiable, and tend to be firm specific, that is, not tradable between firms (Makadok, 2001). The logic of RBV is underpinned by a number of assumptions. Some of these assumptions bear semblance to those underlying other theories that address performance differences across firms. For instance, the RBV rests on the common assumptions that firms are entities whose focus is to attain profit maximization and that managerial decision-making operates under bounded rationality.

In addition to these key assertions there are two others that distinguish the RBV from other theoretical perspectives in strategic management. In particular, the theory assumes that resources may be heterogeneous and immobile (Barney, 1991). In essence, firm heterogeneity reflects the idiosyncratic nature of strategically valuable resources or how distinctive they are across companies. Resource immobility implies how difficult it is to transfer strategically valuable resources across firms (Barney, 1991).

It is important to note that these assumptions merely suggest that resource heterogeneity and immobility may exist but do not imply that every firm will at all times be unique in strategically valuable ways. Instead, the assumptions suggest that some firms, some of the time, maybe endowed with resources that allow them to outperform rivals and that these resource differences may last. Barney (1991) asserted that the firm heterogeneity encompasses two qualities of resources, that is, scarcity and non-substitutability. Barney noted that a scarcity occurs when demand for a given resource surpasses its supply. He described non-substitutable resources as those that when replaced cannot allow for effective and efficient execution of strategies as the original ones.

In the same vein, the concept of resource mobility suggests that certain resources, some of the time may be inelastic in supply due to limiting factors such as cost and impossibility to copy or acquire. In sum, the RBV holds that firm resources may vary in the degree to which they are scarce, non-substitutable and inelastic in supply. The propositions put forward by RBV have produced a wide range of powerful and testable hypotheses in the field of strategic management.

The bulk of the empirical work derived from this theory has been primarily directed at discerning resources which manifest that the range of qualities that the theory posits are necessary for superior firm performance. The empirical work has also tended to uncover whether the supposed performance effects attributable to resources exist. The performance outcomes of different types of resources have been explored empirically including; employee knowledge (Diaz-Fernandez, Gonzalez-Rodriguez & Simonetti, 2015; Van Esch, Wei & Chiang, 2018); culture (Khedhaouria, Nakara, Gharbi & Bahri, 2020; Martinez, Beaulieu, Gibbons, Pronovost & Wng, 2015) and innovativeness (Dibrell, Craig & Neubaum, 2014), just to cite a few. Overall, the results yielded by these studies have been consistent with the predictions advanced by the RBV.

However, only a few studies, for example, Poppo and Zenger (1995) in their assessment of vertical integration and Zhou, Gao, Yang and Zhou (2005) in their assessment of the linkage between strategic orientation and performance, have rendered inconsistent results. The core strength of the RBV lies in its clarity and instantaneous face validity. The theory's central ideas are appealing and easy to grasp (Kraaijenbrink, Spender, & Groen, 2010).

The wide application of the theory in informing research and strategy across different fields points to this strength. While the RBV has been adopted in informing a wide variety of studies in the field of strategic management and beyond, several criticisms have been leveled at the theory.

The first criticism is related to its managerial implications. Critics argue that the theory merely informs managers to acquire resources, but does not go as far as to prescribe how they should go about it (Priem & Butler, 2001). In the same light, the theory espouses the assumption that managers have absolute control over resources and they are in a position to estimate the future value of the resources (Conner, 2002; Miller, 2003). The second criticism concerns the falsifiability of the theory's core ideas. Any evidence that is obtained tends to suggest that differences in resource endowment across firms are responsible for variations (Miller, 2003). However, in the event that contrasting evidence is found, it may only imply that the resources examined are not valuable (Hoopes, Madisen & Walker, 2003).

A third criticism is that proponents of the theory have paid little attention to the contexts in which firms operate (Priem & Butler, 2001). The mechanisms adopted to acquire and deploy cannot be divorced from a firm's wider contextual influences (Oliver, 1997). Similarly, the theory has been criticized for paying insufficient attention to where firms procure their assets (Barney & Clark, 2007). Potential reasons for uneven distribution of resources across firms include issues of causal ambiguity, path-dependent contingencies and social complexity. Nevertheless, the mechanisms through which firms develop resources deserve more attention.

A further criticism of the theory is its failure to disentangle resources and capabilities (Kraaijenbrink et al., 2010). The theory views the two concepts as similar and static, despite being defined differently. While organizational resources should support its strategic planning and implementation, not all of them may be strategically relevant. Indeed, Barney (1991) points out that some organizational attributes may have no impact at all while others may reduce the organization's ability to optimally exploit its opportunities. Barney (1991) argues that though a firm's resources may be valuable and rare, it can only enjoy SCA if competing firms are unable to obtain the same resources. It can therefore be inferred that organizational resources, given their heterogeneity, will have a bearing on performance irrespective of the approach to strategy implementation.

### **2.2.3 Dynamic Capabilities Theory**

The DCT focuses on how firms build, combine and enact unique configurations of their competences into new patterns that enable them to attain desired levels of performance (Teece, Pisano, & Shuen, 1997). It is concerned with explaining how firms utilize dynamic capabilities to produce and sustain superior performance over others by maintaining agile responsiveness to changes in the organizational environment (Teece, 2007).

This perspective, assumes that, broadly, firms that invest in refining their dynamic capabilities are more likely to stay ahead of their competitors. Capabilities represent high-level, highly patterned, and highly recurrent firm actions that allow firms to spot opportunities and leverage from them (Nelson & Winter, 1982; Winter, 2003).

Organizational capabilities are typically referred to as “zero-level” capabilities, which constitute a firm’s capacity to preserve the status quo of basic functional activities such as production, distribution, marketing and sales more effectively (Winter, 2003, p. 991).

Winter (2003) further suggested that dynamic capabilities are “first-order” competencies, which represent the capacity to purposefully alter a product, the production routine, the scope and markets in which a firm operates. Based on this perspective, it follows that a firm is endowed with dynamic capabilities when it can augment and reconfigure its differential reservoir of internal and external competencies, even under conditions of volatile operating environments. For instance, while organizational capabilities are concerned with exploitation of existing resource bundles reliably, dynamic capabilities relate to how firms can create and leverage new advantages (March, 1991).

According Helfat et al. (2007) a firm possesses a capability if it can accomplish a task in the least minimal way, regardless of the quality of the outcome. This implies that a firm does not necessarily have to put its capabilities into action for it to be said that it possesses those capabilities. However, on average, firms do deploy their capabilities in order to sustain their fitness to utilize them. In other words, capabilities are premised on the ‘use or lose it’ logic (Helfat & Peteraf, 2003). Teece (2007) asserts that a firm’s developmental trajectory and past experiences shape its current endowment of asset positions, which culminate into firm processes. Firms deploy their sensing capabilities to explore and identify opportunities that matter the most. After identification, firms act upon the opportunities so as to elevate their organizational capabilities.

Next, the firms seek to maintain their competitiveness by augmenting and recombining their capacities in novel ways that adapt to changes in the external environment. These new capabilities can become a major strength for firms as they can help them to orchestrate new strategic positions and alternatives, which may ultimately lead to achievement of a sustained competitive advantage.

Helfat et al. (2007) identified two approaches for assessing a firm's capabilities: technical fitness and evolutionary fitness. The scholars asserted that technical fitness describes how well a particular capability accomplishes the intended task relative to the cost involved. This calibration is useful in assessing whether dynamic capabilities are cost-effective or not. Helfat et al. defined evolutionary fitness as how well a firm is able to augment and reconfigure its assets posture to match the changing external conditions. As such, evolutionary fitness is externally oriented and its sustainability is enabled by dynamic capabilities.

The DCT has been subject to a number of criticisms, the first being its lack of proper definition of the term "dynamic capabilities." Critics have argued that the definition is constantly changing and the proponents of the theory have done little to resolve the contradictions and incongruities in the definitions presented (Arend & Bromiley, 2009; Zahra, Sapienza, & Davidsson, 2006). Other critics such as Eisenhardt and Martin (2000) have remarked that the term has been described in a rather vague manner— for instance, as " routines to learn routines" —that makes it difficult to operationalize. According to Di Stefano, Peteraf, and Verona (2010) this insufficiency of clarity of the fundamental terms will only serve to hinder further developments of the theory.

The second most frequent criticism of the theory is that it is marked by tautology. Researchers such as Arend and Bromiley (2009) have noted that by virtue of being successful, a firm possesses dynamic capabilities. Some researchers have tautologically observed that dynamic capabilities culminate into success and that successful firms are endowed with dynamic capabilities (Collins, 2001; Waterman & Peters, 1982).

Additionally, some critics have argued that firms with poor performance may have capabilities that do not lead to competitive success (Rindova & Kotha, 2001). Other critics have asserted that lack of organizational change is not necessarily an indication that a firm is devoid of the capabilities requisite to institute change (Arend & Bromiley, 2009). Another line of criticism is that the concept of dynamic capabilities is not sufficient in uncovering why performance outcomes across firms are not the same. For instance, the concept does not encapsulate other equally meaningful circumstances such as absorptive capacity, strategic alignment and organizational learning (Arend & Bromiley, 2009).

Another weakness of the theory that has been raised in the extant literature relates to the measurement of dynamic capabilities (Williamson, 1999). An objective measurement model for the theory does not exist (Pavlou & El Sawy, 2011). In the same vein, Galunic and Eisenhardt (2001) noted that dynamic capabilities are typically assumed to exist without detailed and exact specification of what these capabilities are. In research, these capabilities are often operationalized using proxies that are vaguely defined (Arend & Bromiley, 2009; Henderson & Cockburn, 1994).

In addition the bulk of research has been based only on short-term and cross-sectional data while the theory demands long-term data spanning multiple years for meaningful analysis. Empirical exploration of the DCT commenced in the early 1990s with the works of scholars such as Teece, Pisano and Shuen (1990) who sought to justify how firms can acquire and maintain superior performance positions despite changing conditions in the organizational context. The central ideas of the DCT are rooted in the RBV (Wernerfelt, 1984; Barney, 1991; Di Stefano et al., 2010).

The two perspectives not only share the same constructs of resources and capabilities but are also underpinned by the same assumption of resource and capabilities heterogeneity in accounting for performance differences across firms (Peteraf, 1993; Wernerfelt, 1984; Barney, 1986; Barney, 1991; Amit & Schoemaker, 1993). The distinction between the two lies in the DCT's attempt to provide explanations of how the heterogeneity emerges and how firms sustain it in light of changing conditions in the operating environment. This aspect is not elucidated in the RBV (Helfat & Peteraf, 2003; Priem & Butler, 2001).

The dynamics capabilities approach identifies those attributes of a firm that confer CA and at the same time sheds light on development, deployment and protection of firm competencies and resources. Exploitation of these firm specific capabilities is consequently vital, given the dynamic nature of the environment. Only those firms that can demonstrate rapid response to change, coupled with flexibility and innovation as well as effective utilization of dynamic capabilities can succeed in the global arena.



The DCT therefore complements the RBV by integrating and drawing upon research in various fields. Furthermore, the DCT, given its view of organizational capabilities as the main source of an organization's competitive edge, could therefore explain organizational performance. As articulated by Harrell, O'Reilly and Tushman (2007), dynamic capabilities have the potential to assist organizations in coping with adaptations, thereby avoiding disruptive changes.

#### **2.2.4 The New Public Management Theory**

The NPM perspective was developed during the 1980s and 1990s to assist government policy makers in public management and in response to the drawbacks of the previous traditional model (Hughes, 2003). During that period Western countries were facing a series of hardships including severe economic recessions, inefficient bureaucratic systems, social uncertainty and declining traditional values. Within this context, the traditional public management model, proved inefficient and inadequate as most governments were plagued with complex fiscal and management problems.

The period, between the late 1970s and early 1980s, was characterized by wave of radical transformations in market-oriented administration (privatization) in the United States (US), United Kingdom and most Western countries that later spread across other countries in the world. By the 1990s, privatization had evolved into the New Public Management perspective, which featured the core value of market orientation (Dong, 2015). While the reforms on the traditional public administration model in various countries differed in terms of methodology, scope and intensity, the theoretical foundations shared considerable similarities.

That is, borrowing from the core ideas of public choice perspective, industrial and commercial management theories, as well as, the public choice school, governments were actively involved in the privatization and marketization of public services. At the same time, they had to borrow from management concepts that are synonymous with the private sector for reference in order to cater to the customers' needs and enhance service quality (Chen, 2002).

Different scholars have proposed varying characterizations of NPM dimensions. For instance Hood summarized the NPM into seven elements; “ professional management of departments; explicit performance management and measures; particular emphasis on output management; decentralization of public authority; reorganization towards more competitiveness; prominence on management practices and styles of the private sector and focus on strict discipline in the use of resources” (Hood, 1991, p. 19).

Osborne and Gaebler (1996) summarized the core ideas of NPM into ten points: “Catalytic governments should steer rather than pull the oar; community-owned governments: authorization instead of serving; competitive governments: injecting competition mechanisms into services; mission-oriented governments: making changes to organizations going by the book; result-oriented governments: funds are allocated based on results instead of input; customer-oriented governments: meeting customers' demands instead of the requirements of bureaucracy; entrepreneurial governments: making profits and not wasting; far-sighted governments: prevention instead of curing; decentralized governments: from hierarchy to participation and collaboration and market-oriented governments: instituting changes with market forces” (Osborne & Gaebler 1996, p. 356).

Chen condensed the ideas of NPM as follows: “letting the managers manage (emphasizing professional management); performance measurement (defined performance standards and performance evaluation); output control (project budgeting and strategic management); customer first (providing responsive service); decentralization of public service agencies; introduction of competition mechanisms; adopting the management styles of the private sector and transforming the relationship between managers, politicians, and the public” (Chen, 2002, p. 81). The respective contributions of these scholars are indisputable and have greatly fostered understanding and clarity of NPM. However, NPM is bound to be described differently by different scholars because it assumes a variety of forms across different countries.

In light of this, Dong (2015) identifies three major themes that characterize NPM; performance orientation, customer orientation and business management orientatin. With respect to performance orientation, Dong notes that the NPM is against the preference of rules over performance. The NPM prescribes easing of internal regulation and strict adherence to performance targets.

In this regard, the NPM assumes that while no organization may operate efficiently without rules and regulations, excessive control through extremely strict rules may lead to counterproductive effects such as decline in the workers’ level of flexibility and creativity, loss of motivation and consequently low efficiency. In contrast, the NPM advocates for a target-oriented approach where the workers’ performance output are monitored. A scientific performance review system may motivate the workers to improve on their productivity as long as they pursue actions boldly (Dong, 2015).

As pertains to customer orientation, Dong asserts that the NPM theory holds that one of the main functions of the government is to offer services that cater to the customer needs and that as such, public services ought to consistently deliver superior value to the customers. It is only through a customer-centered approach that governments may satisfy public demands and ensure quality service delivery. In other words, governments must probe and listen to the customers' voices, establish and enforce service standards and make commitments to the customers (Dong, 2015). With regard to business orientation, Dong notes that the NPM theory maintains that there are similarities in the way enterprises in the private sector and public sector are managed.

These similarities range from theoretical foundations, approaches and principles to managerial experiences, yet enterprises are much better and more effective than their counterparts in the public sector. As such, the NPM recommends reconfiguring the public sector by embracing the processes and routines adopted by private enterprises. Activities such as project budgeting, performance reviews, customer management and human resource management in the NPM theory are primarily derived from management systems used in private enterprises.

In sum, the NPM theory is geared towards improvement of the efficiency and quality of public services where government agencies are treated as private enterprises. This approach has been successful in many countries particularly in the West such as the US and UK (Pollitt & Bouckaert, 2011). This has resulted in an upcoming trend where titles, terms and concepts hitherto applied by the private sector are adopted by the public sector.

Pollit and Op de Beeck (2010) posit that the increasing use of strategic planning, business process re-engineering, capacity building on leadership and innovation and even designation of senior public service positions as “chief executive” is a clear manifestation of this new trend. The adoption of this approach by governments is geared at improving performance by enhancing efficiency in service provision to the public.

The NPM further advocates for strengthening of the public sector by improving service delivery and customer service through professional output and empowering public managers. Larbi (1999) observes that NPM was recognized by most multinationals as ideal for promoting good corporate governance, minimizing corruption and realizing an effective civil service. The application of the theory could thus enhance service delivery to the public, who are viewed as customers rather than passive recipients (Borins, 2000).

### **2.3 Strategy Implementation and Organizational Performance**

The utility of implementing a strategy in the overall outcomes of an organization is contingent on several people oriented factors, referred to as soft factors, hard factors comprising infrastructure and organizational structure, and other factors such as strategy formulation as cited by Njoroge et. al, (2015). Managers have consequently a critical role to play in facilitating strategy implementation. Indeed, Lefort, Mc Murray and Tesvic (2015) established that firms which were good strategy implementers recorded twice financial success compared to poor implementers. However, Saunders, Mann and Smith (2008) observed that the processes of strategy implementation have not been given much attention by scholars.

This area of study may require more attention, given that it is key if organizations are to realize the benefits of formulation of organizational strategy (Shah, 1996). This perception is echoed by Rahimnia, Polychrokakis and Sharp (2009) in their argument that below average organizational performance could be due to failure by managers to prioritize strategy implementation. For an organization to realize improvement in performance through strategy implementation, selection of the best strategy through effective strategy formulation is essential (Kaplan & Norton, 2006; Lefort et. al, 2015).

It follows that all members of the organization must own the strategy for effective implementation. Newbert (2008) on carrying out an empirical study on a sample of micro and nano technology firms based in the U.S. found out that an organization's CA can be associated with the extent of value and rareness of its resources. A considerable number of studies have been undertaken in an attempt to confirm whether performance is optimized when organizations implement their strategies.

The bulk of the evidence has consistently shown that strategy implementation often leads to realization of outcomes that favour organizational success. A few studies, however, have generated divergent results suggesting that performance is not tied to aspects of strategy implementation. For instance, Morgan, Katsikeas and Vorhies (2011) explored the link between implementation of export marketing strategies and performance of manufacture exporters in the United Kingdom. A structural equation model nested within the study's cross-sectional design was fitted to a dataset derived from a systematic random sample of 1000 exporters.

The results showed that both external and internal marketing strategy implementation had a significant and positive effect on export venture performance of the manufacturing companies. In another study, Andrews, Beynom and Genc (2017) examined how different styles of implementing strategies shape various performance outcomes of Turkish municipal departments. The investigation was grounded on a descriptive research design. The data for the study was sourced from a pooled sample of 840 municipal managers which was then evaluated using fuzzy cluster and regression analytical procedures.

The cluster technique discerned a set of four strategy implementation approaches espoused by the departments: logical-incremental, mostly rational, mostly incremental, and no clear approach. A hierarchical regression was then invoked which revealed the differential impact of these approaches on performance. Two approaches namely, logical-incremental and mostly rational implementation style were found to be closely connected to associated to higher levels of service performance than the other approaches.

In China, Law, Tavitiyaman and Zhang (2015) set to ascertain whether or not implementation of strategies optimizes the performance of government-owned hotels. The study adopted a descriptive research design and incorporated interview data from 17 executives. The results from the qualitative interviews showed that the hotels under study gained unique advantages in the competitive advantage derived from the judicious utilization of various sources of differentiation such as branding and cost-efficiency. Implementation of these strategies drove the hotels to realize better performance than that achieved by hotels that did not implement.

In their study, Orugun, Naflu and Aduku (2017) focused on examining whether or not implementation of strategies translates into better performance outcomes and gains in competitive advantage for small and medium enterprise (SMEs) in Kogi State, Nigeria. A descriptive research design was used to select a convenience sample of 330 SMEs. The analytical tool employed, multiple regression, produced results which revealed that implementation of strategies had an incremental added value on the performance of the enterprises.

Musalika, Kule and Kibachia (2016) embarked on a study with the goal of mapping the linkage between implementation of strategic plans and performance of manufacturing companies with a key focus on Bralirwa Ltd in Rwanda. The inquiry was premised on descriptive research design where data from a sample of 30 respondents was sourced. The data was sourced from the participants using a questionnaire and then subjected to Spearman correlation analysis.

The findings revealed that strategy implementation in all its facets as defined by the researchers including organizational structure, resource allocation and control and evaluation had a positive and significant association with organizational performance. Elsewhere in Uganda, Ogbe (2017) assessed the impact of strategy implementation on the performance of Kenya Commercial Bank, Wandegaya Branch. The study was based on a descriptive research design where a random sample of 86 respondents was selected. Data from these respondents was collected using both an interview guide and questionnaire and then subjected to descriptive statistical analysis.



The results revealed that strategy implementation affected organizational performance positively resulting in better profitability, business turnover and volumes of sale. In Kenya, Mailu, Ntale and Ngui (2018) studied how implementation of strategies contributes to the performance of pharmaceutical companies. The research adopted a descriptive survey design with a target population of 464 companies. A questionnaire was employed to source data from the participants to which a multiple regression model was fitted. The researchers found evidence of a positive and significant linkage between implementation of the strategies and performance.

Keya (2019) set out to explore how different practices of implementing strategy related to the performance of International Non Governmental Organizations (INGOs) in Kenya. The study was based on a cross-sectional survey design. A total of 60 managers from 15 INGOs with headquarters in Nairobi was targeted. Data from the participants was gathered using a questionnaire and analyzed with the aid of a multiple regression model. Resource deployment, communication and culture emerged as pivotal practices that contributed positively to the performance of the organizations.

Njagi and Kombo (2014) endeavoured to uncover the connection between the implementation of strategies by commercial banks in Kenya and their performance. The investigation adopted a correlation research design where data from forty-three registered commercial banks was collected. Multiple regression analysis was employed on the dataset revealing that strategy implementation practices of strategy institutionalization and operationalization created significant added value to the banks in terms of performance.

In an almost similar study, Waititu (2016) probed the relationship between implementation of strategies and the performance commercial banks in Nairobi County Kenya. The investigation was grounded on a cross-sectional research design in which a pool of 11 listed commercial banks was selected and 191 top management officials randomly selected. Data from these respondents was collected using a questionnaire and then subjected to multiple regression analysis. The results revealed mixed effect of strategy implementation practices on performance of the banks. In particular, while organizational culture and structure had a significant effect on performance, organizational structure had a positive effect and organizational culture had a negative effect. Communication systems and leadership styles did not produce a significant effect.

Still in the context of commercial banks, Kimeu and Maina (2018) examined whether or not implementation of strategies elevates the performance of commercial banks in Machakos County, Kenya. The investigation followed a descriptive research framework in which data from a sample of 38 participants was randomly selected from the banks. A multiple regression model was fitted to the accumulated dataset.

The results generated indicated that practices such as resource deployment, performance targeting, communication and supervision contributed positively to the performance of the banks. Abass, Munga and Were (2017) purposed to find out how implementation of strategies affects the performance outcomes of Wajir County government. The investigation was guided by descriptive research design in which data was pooled from 166 employees. Data from the respondents was gathered using a questionnaire and then analyzed with the aid of multiple regression analysis.

The study revealed that strategy implementation practices including organizational structure, leadership style, organizational culture and resource availability had a significant and positive effect on the performance of Wajir County government.

Kipkorir and Ronoh (2017) investigated how implementation of strategies shapes the performance of Non Governmental Organizations based in Kericho County, Kenya. A survey research design was chosen for the inquiry where 37 organizations were selected. A stratified sample of 151 respondents from these organizations was selected. The data was sourced using a questionnaire and analyzed with the aid of multiple regression analysis.

The findings revealed mixed results. In particular, strategy operationalization was found to have a positive and significant linkage with performance. However, no significant linkage was established between strategy institutionalization and performance. Mutunga and Wainaina (2019) probed into how implementation of strategies affects the performance of Kenya Wildlife Service (KWS).

The study followed a descriptive research design where data from 50 managerial staff was sourced. Data from these respondents was collected using a questionnaire and analyzed using multiple regression analysis. Overall, the results were mixed. On one hand, both strategic direction and structural adaptations were found to have a positive and significant linkage with performance. On the other hand, human resource management was found to have no significant relationship with performance.

The review of the extant literature indicates that the link between strategy implementation and organizational performance is not always clear cut owing to the slightly mixed results yielded by different studies. There are studies with evidence supporting the significant effect of strategy implementation and a few that have established lack of a significant relationship. In part, this might emanate from the different conceptualizations of strategy implementation, contexts and methodological choices of the researchers.

A review of the studies also shows that no study has focused on the relationship between strategy implementation and performance of Kenyan owned SCs. This study sought to fill this gap. Moreover, the bulk of the research suggested a positive and significant relationship between strategy implementation and performance. As such, it was expected that the current study would find a significant and positive relationship between strategy implementation and performance of Kenya owned SCs.

## **2.4 Strategy Implementation, Organizational Resources and Organizational Performance**

The success of any strategic planning system relies heavily on its implementation. The implementation process in turn depends on the resources that the organization possesses. The pioneer scholars on the RBV emphasized the importance of resources on organizational performance (Rujman & Verbeke, 2002). In the same way, Newbert (2008) supported the RBV by his contention that possession of valuable and rare resources is vital in conferring SCA to an organization. The RBV suggests that organizations in the same industry possess idiosyncratic resources which may not be necessarily mobile across the organizations (Barney, 1991; Newbert, 2008).

This view affirms that heterogeneity across different organizations makes it more difficult for resource mobility from one organization to another thus hindering industry homogenizing that may be occasioned by imitation. Consequently, similar organizations with different levels of resources and capabilities may record different levels of performance. It follows that, organizational resources coupled with appropriate capabilities should enable an organization to effectively implement its strategies thereby acquiring CA with the consequent performance improvement.

Helfat and Peteraf (2003) posit that competitive heterogeneity affects organizational performance and competitiveness. Ultimately, managers ought to lay emphasis on acquisition of valuable and rare capital which should neither be readily substitutable nor easily duplicated by other organizations in order to realize optimum performance. In a study by Ombaka (2014), it was found that organizational resources made a significant impact towards the achievement of superior performance among State-owned insurance firms in Kenya.

In India, a study by Gaur, Vasudevan and Gaur (2011) explored the moderating role of firm resources on the relationship between implementation of market oriented strategies and performance of manufacturing SMEs. The study was based on a cross sectional research design. Data was sourced through intensive surveys of the top-managers and chief executive officers of the SMEs and subjected to hierarchical regression analysis. The findings from the analysis revealed a positive link between implementation of the market oriented strategies and performance of the manufacturing SMEs. Additionally, the results showed that firm resources moderated the relationship between the market-oriented strategies and firm performance.

Ipek and Tanyeri (2020) purposed to explore whether or not firm resources amplified or constricted the impact of implementing export market oriented strategies on export performance of Turkish firms. The study was premised on a cross sectional research design in which data was randomly chosen from a sample of 221 companies. The emergent dataset was analyzed using structural equation modeling. The results showed that higher levels of knowledge-based and managerial resources elevated the derived effect of implementing market oriented strategies on export performance of the firms.

It is evident that that there are only a few studies, that have examined the moderating effect on the linkage between strategy implementation and organizational performance. It is also apparent that these studies have focused on different contexts, sectorwise and countrywise, and thus have not addressed how the influence of strategy implementation on performance of Kenya owned SCs is moderated by resources. This study endeavoured to fill this gap.

The few studies reviewed confirmed the moderating role of organizational resources and on this ground it was expected that the current study would also find evidence that firm resources moderate the effects of strategy implementation on performance of Kenya owned SCS.

## **2.5 Strategy Implementation, Operating Environment and Organizational Performance**

Strategic planning and implementation is an all-encompassing process involving multiple internal and external stakeholders. The decision making process must take into account the changing needs and expectations of all those involved. Factors in the operating environment may influence organizational processes in various ways. The constant environmental changes may affect organizational outcomes favourably or unfavourably since they affect the process of strategy implementation (Tavecha, 2007). The environment tends to be constantly changing and dynamic and this situation brings about challenges to the strategic planning process in organizations (Scott, 2004; Favaro, 2015). Consequently, the increasingly dynamic environment particularly determines the level of available resources leading to smooth strategy implementation. It follows that organizations must respond to environmental uncertainty for them to obtain superior performance.

Savedoff (1998) underscores the importance of appreciating the forces without the organization that either enhance or hamper performance as a starting point for performance improvement efforts. Organizations therefore need to adapt to their rapidly changing environments. This implies that an organization whose structure rhymes well with its environment will be better positioned to adjust to changing circumstances.

A number of studies have been devoted to investigating the interplay between strategy implementation, operating environment and organizational performance. For example, Oladele, Akeem & Orji (2019) examined the effect of strategy implementation practices and market turbulence on the performance of Small and Medium Enterprises (SMEs) in Nigeria. A cross-sectional research design was adopted in which a sample of 200 employees from a random selection of 10 SMEs in Abuja, Nigeria was drawn. Data was collected from these respondents using a questionnaire and analyzed using multiple linear regression. The results revealed a positive and significant relationship between strategic implementation and performance of the SMEs.

Additionally, the results showed that market turbulence had a significant moderating effect on the relationship. Machuki and Aosa (2011) carried out a survey of a section of private sector companies in Kenya in which they used key environmental factors including complexity, dynamism and munificence. The study established that varying dimensions of each of these dimensions existed and therefore were influential in decision making. Similarly, Gachugu, Awino, Machuki and Iraki (2019) examined the link between Top Management Team (TMT) diversity, strategic leadership, external environment and performance of Public Benefit Organizations (PBOs) in Kenya. The study used a cross-sectional research design in which a sample of 130 respondents was acquired from 101 PBOs. The data was collected from the respondents using a questionnaire and analyzed using multiple linear regression. The results revealed that both strategic leadership and external environment had a significant moderating effect on the relationship between TMT diversity and performance of the PBOs.



In another study, Mudany, Letting and Gituro (2020) investigated the moderating effect of macro environment on the linkage between strategy implementation and performance in Energy Sector institutions in Kenya. The study adopted a cross sectional research design in which 68 institutions were surveyed. Data from the respondents was gathered via a questionnaire and analyzed using multiple linear regression analysis. The findings revealed that strategy implementation had a positive and significant impact on performance of the institutions. The findings further revealed that the macro environment had a significant moderating effect on the relationship between strategy implementation and performance.

Mbithi, Muturi and Rambo (2017) assessed the moderating role of macro environment factors on the relationship between strategy and performance of sugar companies in Kenya. The study was premised on a a cross sectional research design in which a purposive sample of 120 heads of departments and managers from eight sugar companies was drawn. Data from these respondents was gathered using a questionnaire and analyzed using multiple regression analysis. The results revealed a positive and significant relationship between strategy and performance. Further, the results indicated that this relationship was significantly moderated by macro-environmental factors including political, economic, socio-cultural and technological factors.

Wanjiru, Muathe and Njuguna (2019) sought to determine the moderating effect of external operating environment on the relationship between corporate strategies and performance of manufacturing companies based in Nairobi City County, Kenya. A cross sectional research design was adopted in which a sample of 148 companies was randomly selected.

Data from the respondents was collected using a questionnaire and analyzed using multiple linear regression analysis. The findings showed a positive and significant relationship between corporate strategies and performance of the companies. Additionally, it was established that the operating environment had a moderating effect on the relationship.

From the studies reviewed, the evidence appears to suggest that the operating environment exerts a moderating effect on the relationship between strategy implementation and performance. As such, it was expected that the current study would confirm the moderating effect of operating environment on the linkage between strategy implementation and performance of Kenya owned SCs.

The studies have also focused on different contexts such as sugar companies, manufacturing firms and energy sector institutions. No single study has explored how the operating environment moderates the effect of strategy implementation on performance in the context of Kenya owned SCs, a gap which this study sought to bridge.

## **2.6 Strategy Implementation, Organizational Resources, Operating Environment and Organizational Performance**

Effective strategy implementation is subject to provision of resources and stability of the environment. It is only in this context that superior performance can be realized. Organizational management must however make a deliberate effort to implement the strategy as required but unfortunately, this is where most organizations fail (Hrebiniak, 2006). Scientific management scholars concur that adopting and implementing the right strategy is vital for superior performance (Brown et al., 2007).

Formulation of strategy in itself may not translate to good performance unless it is supported by effective implementation (Pryor, Anderson, Toombs & Humphreys, 2007; Favaro, 2015). Indeed, Lefort, Knibbe, Beslon and Favrel (2006) posit that “the most carefully planned strategies can fail because of mediocre implementation”. The RBV perceives organizations as becoming profitable as a result of superior systems and structures.

This view is echoed by Teece et al., (1997) in their contention that the output of a firm is greatly tied to its capacity to sustain a distinctive competence. The RBV therefore identifies managerial strategies as necessary for developing new capabilities to facilitate control over the organization’s scarce resources. Other scholars also support this view, pointing out that skills acquisition, knowledge management, organizational learning and harnessing of intangible assets is instrumental for organizational performance (Teece et al., 1997).

An empirical study by Shah (1996) focusing on Indian industries revealed that the most important factors for successful strategy implementation were the strategy making process, top management commitment, rewards and incentives, in that order. Dobni and Luffman (2003) empirically investigated the “influence of market orientation profiles on strategy implementation and performance” of some private companies in the U.S. The results revealed a relationship between market orientation and strategy profiles and performance.

## **2.7 Knowledge Gaps**

As demonstrated by the studies scrutinized, the concepts applied so far have been used by several other researchers. However, there are still knowledge gaps that remain. These gaps reflect the deficits prevalent in the extant studies that are connected to the conceptualization of the variables of interest, methodologies invoked to test the conceptual linkages between the variables and their contexts. Table 2.1 exposes the earlier studies, highlighting their findings, methodology, research gaps, and indicating how the current study addressed them.

**Table 2.1: Knowledge Gaps**

Researcher(s)	Focus	Research Variables	Methodology	Findings	Research Gaps	Addressing the gaps in the current Study
Morgan, Katsikease and Vorhies (2011)	Export marketing strategy implementation and export venture performance in UK	-Export marketing strategy implementation -Venture performance	Cross-sectional design	Both external and internal export marketing strategy implementation had a significant and positive impact on export venture performance	The study context was private enterprises in the UK.	The study context was public organizations in Kenya.
Andrews, Beynom & Gene (2017)	Strategy implementation styles and effectiveness, efficiency and equity of Turkish Municipal departments	-Strategy implementation styles -Service performance	Descriptive research design	Some styles were associated with better service performance than others Logical-incremental and mostly rational styles were associated with the best service performance No clear approach had the lowest level of service performance	The study context was municipal departments in Turkey; it focused on effectiveness of strategy implementation styles	The study focused on the impact of strategy implementation on performance in the context of Kenya owned SCs
Law, Tavitiyaman and Zhang (2015)	Strategy implementation and business performance of State-owned hotels in China.	-Strategy implementation -Business performance	Descriptive research design	Implementation of strategies such as branding, human resource, information technology and cost efficiency led to achievement of desirable performance	The study was conducted in China and was limited to State-owned hotels	The study explored the role of strategy implementation in the performance of Kenya owned SCs

**Table 2.1: Knowledge Gaps continued...**

Orugun, Naflu and Aduku (2017)	Strategy implementation and performance of SMEs in Nigeria	-Strategy implementation - Performance	Descriptive research design	Strategy implementation had a significant and positive effect on performance of the SMEs	The study context was SMEs in Nigeria.	The study context was Kenya owned SCS
Waititu (2016)	Strategy implementation and performance of commercial banks in Nairobi County	-Strategy implementation - Performance	Cross-sectional research design	Mixed results on the impact of strategy implementation Organizational culture and structure had a significant effect on performance - Communication systems and leaderships styles did not have a significant effect	The study explored the direct relationship of strategy implementation on performance in the context of the private sector	The study explored the moderating effect of organizational resources and operating environment on the relationship between strategy implementation and performance of organizations in the public sector.
Musalika, Kule and Kibachia (2016)	Strategy implementation and performance of manufacturing firms in Rwanda	-Strategy implementation - Performance	Descriptive research design	Strategy implementation had a positive and significant impact on performance	The study context was manufacturing companies in Rwanda.	The study context was Kenya owned SCs
Mailu, Ntale, Ngu (2018)	Strategy implementation and organizational performance of pharmaceutical companies in Kenya	-Strategy implementation - Performance	Cross-sectional research design	Strategy implementation had a positive and significant impact on performance	The study focused on pharmaceutical companies	The study focused on Kenya owned SCs
Gaur, Vasudevan & Gaur (2011)	Moderating role of firm resources on the link between implementation of market oriented strategies and performance of manufacturing SMEs in India	-Firm resources - Implementation of market-oriented strategies - Performance	Cross-sectional survey design	Firm resources had a moderating effect on the relationship between implementation of market-oriented strategies and performance	The study was carried out in India and focused on manufacturing SMEs	The study context was Kenya owned SCs

**Table 2.1: Knowledge Gaps continued...**

Oladele, Akeem & Orji (2019)	Moderating role of market turbulence on the relationship between strategy implementation and performance of SMEs in Nigeria	-Strategy implementation -Market turbulence - Performance	Cross-sectional research design	Market turbulence had a moderating effect on the relationship between strategy implementation and performance of SMEs in Nigeria	The study was carried out in Nigeria and focused on SMEs	The study context was Kenya owned SCs
Gakure, Muriu, and Orwa (2013)	Performance contracting and its effect on performance of civil service in Kenya.	- Performance contracting - Effectiveness of performance	Exploratory study	Performance contracting enhanced performance of the Civil Service in Kenya	The study applied exploratory research design	This study applied cross sectional research design
Lehner (2004)	Strategy implementation tactics in selected Austrian organizations	-Strategy Implementation tactics - Environment	Cross sectional field study	Autocratic and participative tactics were most effective.	The study was based in Austria and sought to establish effectiveness of strategy implementation tactics	This study dwelled on the impact of strategy implementation on performance of Kenya owned SCs
Newbert (2008)	Performance of micro and nano technology firms in the U.S.	- Competitive advantage -Value -Rareness	Longitudinal study	Valuable and rare resources contribute to performance.	The study conceptualized organizational resources as independent variables; it applied a longitudinal research design	This study conceptualized organizational resources as moderating variable; it applied cross sectional research design
Njoroge, Machuki, Ongeti, and Kinuu (2015)	Strategy implementation and Performance of Kenya owned SCs	-Strategy implementation - Organizational Performance	Cross sectional survey	Strategy implementation influences performance of Kenya owned SCs	The study conceptualized performance contracting and external environment as moderating variables.	This study conceptualized organizational resources and operating environment as moderating variables.

**Table 2.1: Knowledge Gaps continued...**

Odundo (2012)	Strategic plan implementation by Kenya owned SCs within the environmental context.	<ul style="list-style-type: none"> <li>- Implementation of strategic plans</li> <li>- Environment</li> <li>- Performance</li> </ul>	Cross sectional survey	Political goodwill and support impact on the link between strategic plan implementation and performance	The study applied the proportion of strategies implemented as the indicator for strategy implementation.	This study applied operationalization and institutionalization as indicators for strategy implementation.
Shah (1996)	Critical elements for strategy implementation in Indian industries	<ul style="list-style-type: none"> <li>-Strategic factors</li> <li>-Strategy implementation</li> </ul>	Cross sectional survey	The most critical factors were effective leadership and top management commitment	The study was restricted to identification of factors necessary for successful strategy implementation.	This study investigated the link between strategy implementation and organizational performance.
Munyoki (2011)	Competitive strategy and performance of public sector	<ul style="list-style-type: none"> <li>- Competitive strategy</li> <li>-Strategy implementation</li> <li>- Organizational Performance</li> </ul>	Cross sectional survey – Triangulation technique	Dual strategists were found to outperform organizations that adopt one strategy exclusively	The study investigated the direct relationship of competitive strategy and organizational performance.	This study investigated the moderating effect of organizational resources and operating environment on performance.

**Source: Researcher (2021)**



Table 2.1 highlights the conceptual, contextual and methodological gaps that were identified from various empirical studies. It further indicates how the study sought to address these gaps.

## **2.8 Conceptual Framework**

In the context of this research, strategy implementation was the predictor variable and was operationalized along two dimensions; strategy operationalization and institutionalization. Organizational performance was the dependent variable and had three indicators namely; financial performance, process efficiency and relevance.

Baron and Kenny (1986) describe a moderating factor as a “variable, whether qualitative or quantitative, that influences the direction or strength of the relationship between an independent and a dependent variable”. It therefore follows that a moderator would affect the relationship between two variables. For the purposes of this study, organizational resources and operating environment were the moderating variables.

Organizational resources were operationalized by tangible and intangible resources while operating environment was operationalized by dynamism, complexity, political good will and support. Tangible resources comprised of infrastructure, funding and human resource while intangible resources included knowledge, technology and culture. Lastly, this study hypothesized that strategy implementation, organizational resources and operating environment jointly impact on organizational performance.

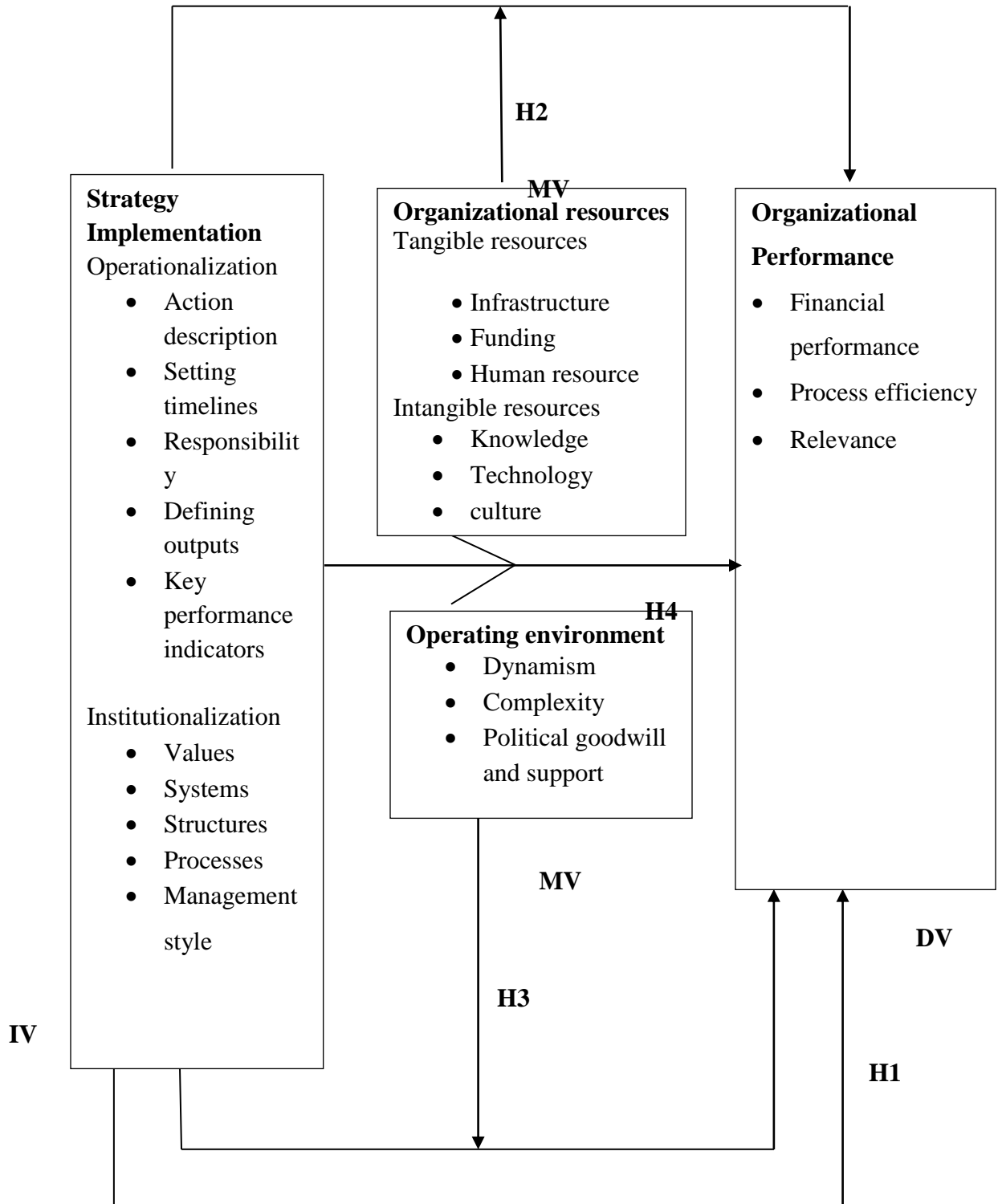


Figure 2.1: Conceptual Model

## **2.9 Conceptual Hypotheses**

The study tested the following null hypotheses:

**H<sub>01</sub>:** Strategy implementation has no significant influence on the performance of Kenya owned State Corporations.

**H<sub>02</sub>:** Organizational resources do not significantly moderate the relationship between strategy implementation and performance of Kenya owned State Corporations.

**H<sub>03</sub>:** Operating environment does not significantly moderate the relationship between strategy implementation and performance of Kenya owned State Corporations.

**H<sub>04</sub>:** The joint influence of strategy implementation, organizational resources and operating environment is not significantly greater than the influence of the sum total of the separate variables on performance of Kenya owned State Corporations.

## **2.10 Chapter Summary**

This chapter covered a detailed literature review geared towards appreciating what other researchers have done on the topic while at the same time exposing the inherent research gaps. The main theories guiding the study which are the Institutional Theory, RBV, DCT and the NPM Theory have been highlighted. Empirical studies that have tested the conceptual relationships among the study variables have also been discussed. The next chapter deals with the methodological steps employed in carrying out the study.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

The goal of this chapter is to offer a detailed explanation of the research methods adopted to facilitate the gathering and analysis of data for this study. It narrows down to the following sub sections: research philosophy, research design, population of the study, data collection, reliability of the research instrument, validity of the study, and data analysis. The sub section on population of the study provides finer details on Kenya owned SCs that are relevant for the study.

The research philosophy covers positivism and phenomenology, clearly distinguishing between the two approaches before narrowing down to the approach adopted by this study. The chapter also covers diagnostic tests within the section on data analysis, clearly shedding light on how the data was analyzed. This section covers multiple linear regression, normality, multicollinearity, correlation analysis and homoscedasticity.

It further shows how the different variables used in the research were operationalized by indicating the measures used for each indicator, with the relevant questionnaire item and supporting literature. It concludes by giving a detailed analysis of the hypotheses, analytical statistical models and interpretation of results. This section also elaborates on the analytical techniques that were used to test each hypothesis as derived from the corresponding objective and also gives the relevant interpretation.

### **3.2 Research Philosophy**

Positivism views the social world as existing externally and therefore measurable through objective methods. Sekaran and Bougie (2013) posit that positivists view scientific research as a means of establishing the truth. Positivists therefore seek to understand an objective truth out there well enough so as to predict and control the world around them.

On the contrary, phenomenology is premised on the postulation that reality is a social phenomenon and as such is subjective and people dependent (Easterby-Smith, Thorpe & Jackson, 2012). It seeks to discover reality through observation and reflection on human behaviour. By exploring the uniqueness of people, phenomenologists aim at attaining a greater understanding of nature.

This study was based on positivists philosophical approach. This is due to its objective approach in establishing the facts and application of hypothesis testing. This study was consequently centred on the positivist approach, where scientific methods were used in hypothesizing the relationships between strategy implementation, organizational resources, operating environment and performance of Kenya owned SCs. This study also sought to confirm the propositions by empirically testing each of the hypotheses. “

### **3.3 Research Design**

Gummesson and Gronroos (2012) noted that “research design is a roadmap on the means of answering the research questions.” It should have a well articulated objective and should reflect consistence between the research items and the research methodology.

In an effort to select a design that aligns ideally with the objectives of this inquiry, the descriptive cross-sectional survey design was deemed the most suitable on grounds that it is geared at describing and establishing correlations between variables. Such a design was accordingly appropriate for this study given its focus on a large number of Kenya owned SCs and therefore enabled collection of data across the SCs at one point in time. The same view is supported by Whittington (2011) in his assertion that a descriptive research design describes and reports situations as they exist.

Given the scope of this research, a cross sectional design afforded the researcher a chance to capture data on strategy implementation, organizational resources, operating environment, and their individual and joint impact on performance of Kenya owned SCs. At the same time, the design enabled the researcher to capture population characteristics and test hypotheses quantitatively. Taking into account a host of other key factors such as the scope of the inquiry, nature and modes of data collection and the required tools and procedures for probing the data further adds to the reasons why the design was apt for the study (Cooper & Schindler, 2006). In addition, the design enhances minimization of bias and maximizes on reliability (Creswell, 2012). Such a design has been used in other studies by Lehner (2004); Shah (1996); Njoroge et al. (2015) and Waweru (2011).

### **3.4 Population of the Study**

Population refers to the subject of interest of the researcher and may include people or any other entities to be investigated (Denscombe, 2010). Krueger (2009) views the term population as referring to the totality of individuals having common characteristics.

The cluster of all Corporations owned by the Republic of Kenya defined the population of this study. As of March 2019, a comprehensive list by the SCs Advisory Committee indicated there were 249 of these Corporations distributed across various governmental ministries (See Appendix III).

The SCs are broadly categorized as Commercial, independent Regulatory Agencies, Research Institutions, Public Universities and Tertiary Educational and Training institutions. The relatively small population did not necessitate the need to draw a sample hence a census was employed. The SCs are charged with different mandates as per the Acts which formed them. They perform distinct functions including commercial, non-commercial, oversight and regulatory and were established to provide essential goods and services, enhance employment and promote the country's economic growth agenda.

### **3.5 Data Collection**

Data collection entails obtaining various points of view and relevant information about the research questions or topic (Zikmund, Couper & Fagerlin, 2012). This study made use of primary data on the manifestation of strategy implementation, organizational resources, operating environment, and performance of Kenya owned SCs. The researcher used a structured questionnaire (Appendix I) for collecting data sourced via both structured and semi-structured questions as guided by conceptual and empirical literature. Given the sample size and nature of respondents, the questionnaire was the best suited method for this study.

The research instruments were distributed through drop and pick method as well as by email. The respondents were officers in charge of the planning division and finance. The chief planning officers responded to questions regarding implementation of strategy while finance officers handled questions touching on organizational resources. In their absence, those acting in the positions were requested to respond as they were best suited to handle all matters pertaining to the variables of interest.

### **3.6 Pilot Study**

Prior to the main inquiry, a pilot study was embarked on to ascertain the feasibility of using the proposed questionnaire. A pilot study entails collecting representative data from a small portion of the intended full-scale study sample or target population (for a census study) (Babbie, 2013). The piloting process is critical in furnishing data for detecting the possible flaws with a survey instrument and its administration to the target audience.

It helps to shed light on those unavoidable cases of obscure terminology, unrecognizable references and equivocal words or phrases that the researcher may tend to disregard as problematic, but that could confuse the respondents and impair response rates and overall data quality (Cooper & Schindler, 2006). The pilot testing also allows the researcher to assess how much time is taken to complete a questionnaire, which is instrumental in charting the logistics of the full-scale investigation. In addition, a pilot study provides raw data through which the reliability and validity of scales measuring different constructs can be tested (Creswell, 2012).



In carrying out the pilot study, the strategy prescribed by Sheatsley (1983) and Sudman (1983) of pretesting an instrument on not less than 12-50 participants was adopted. To this end, the questionnaire was administered via e-mail and drop-and-pick technique to a random sample of 30 chief planning or financial officers serving in Kenya owned SCs. A 100% return rate of these pilot questionnaires was scored. All the incoming questionnaires were subjected to thorough scrutiny and in instances where ambiguity emerged or clarification was required, the researcher followed up through phone calls and e-mail correspondence. The few minor anomalies detected with the questionnaire were subsequently resolved. Next, the pilot data was analyzed whereby statistical checks on reliability and validity of the scales were carried out. The results from these tests are reported in the following sections.

### **3.6.1 Reliability**

Reliability broadly focuses on the quality of measurement and narrows down to the consistency of the measurement. According to Sekaran and Bougie (2013), reliability is an indicator of the stability and consistence of a measuring instrument. This is because it indicates the level of minimization of bias leading to consistent measurement by the different items in the data collection tool.

The reliability of the scales developed to measure the study variables was evaluated using the Cronbach's alpha, which oscillates between 0 (denotes zero consistency) and 1 (denotes perfect consistency). According to Bell, Bryman and Harley (2019), a scale that registers a Cronbach's coefficient of 0.7 and above is internally consistent to a satisfactory degree. This guideline was adopted for this study. Table 3.1 shows the extent to which various scales were reliable.

**Table 3.1: Reliability Test Results**

<b>Variable</b>	<b>No. of Scale Items</b>	<b>Cronbach's alpha</b>	<b>Remark</b>
Strategy Implementation	21	0.933	Reliable
Organizational resources	19	0.905	Reliable
Environment	25	0.805	Reliable
Organizational Performance	29	0.860	Reliable

**Source:** Research Data (2021)

As shown in Table 3.1, the Cronbach's alpha values ranged from 0.805 to 0.933. The scale measuring strategy implementation yielded the highest coefficient of the four variables. Applying the threshold criterion by Bell et al. (2019), which suggests that a reliability coefficient above 0.7 signifies acceptable internal consistency, it was concluded that all the scales, each corresponding to a variable of interest, had excellent reliability.

### **3.6.2 Validity**

This is a measure of the effectiveness of a research instrument in measuring the particular concept that the instrument is intended to measure (Sekaran & Bourgie, 2013). Viewed in other terms, it is a measure of the extent to which a subset of questionnaire items is representative of the subject matter it is purportedly devised to assess (Rousson, Gasser & Seifer, 2002). Three essential types of measurement validity were sought in this study; face validity, content validity and construct validity.

Face validity indicates the adequacy of a survey to measure the target construct on mere casual inspection or face value (Babbie, 2013). Content validity is an assessment similar to face validity as it involves all the same judgmental procedures as the latter. However, the distinction between the two validation processes is one of focus.

The main focus of content validity is the content of the items intended to reflect a conceptual definition (Bell et al., 2019). In other words, content validity is concerned with the degree of comprehensiveness, relevance and representativeness of the items encapsulated in a survey (Ruel, Wagner & Gillespie, 2016). To confirm face and content validities, expert reviews of the drafted instrument were solicited from three faculty members (supervisors).

The expert appraisals provided feedback on whether the selection of the individual items, content and structure as a whole served to adequately answer the larger research-guiding questions. Their assessments confirmed that indeed the items chosen were not only suitable to represent the various constructs at face value but also matched well with the conceptual definitions of the study variables. This provided adequate evidence of face and content validity.

Subsequent to ascertaining face and content validity of the research instrument, a more sound and robust measure of validity was sought; construct validity. Construct validity is demonstrated when a scale accurately measures the concept of interest it was designed to measure, and not other conceptually and logically distinct concepts. In order to establish construct validity, two checks were carried out; convergent and discriminant validity. Convergent validity is established when multiple measures intended to measure the same complex concept or construct exhibit high correlations with each other (Hair, Page & Brunsveld, 2020). In contrast, discriminant validity is confirmed when there is zero or little correlation between one construct and measures or items of another conceptually distinct construct (Ruel et al., 2016). Confirmatory Factor Analysis (CFA) was adopted to verify the convergent and discriminant validities of each variable scale.

The initial step in performing CFA involves verification of whether the data is factorable, which is accomplished by application of the Kaiser Meyer-Ohlin (KMO) measure of sample adequacy and Bartlett test of sphericity. Ranging from 0 to 1, a KMO index above 0.5 implies an acceptable sample size (Hair et al., 2010). A significant Bartlett's sphericity value (sig. <0.5) demonstrates presence of sufficient correlations among at least some of the variables to warrant application of factor analysis.

Once the factorability of the data has been justified, the next step, achieved through Principal Component Analysis (PCA), involves extraction of maximum possible factors that could be conceptually and logically represented by a set of scale items. However, for this study the intention was not to explore how many factors could be derived from the items but to confirm whether the desired number of factors underlying each variable was valid. To this end, a priori criterion, an approach based on a predetermined number of factors for each variable was applied when undertaking the factor analysis.

As a final step in CFA, the rotated factor loadings for each manifest variable are examined to identify that variable's contribution to the underlying factor structure (Ho, 2014). Factor loadings represent the degree of correlation between each manifest variable and a particular dimension, with large loadings suggesting that they are representative of the factor. In deciding what is large and small, Hair et al. (2020) suggests that both convergent and discriminant validity are demonstrated if all loadings on one construct are 0.5 or greater and cross-loadings are less than 0.5. This criterion served as the key guideline in verification of convergence and discriminance of the study's variable scales.

### 3.6.2.1 Strategy Implementation Scale

The strategy implementation scale was a self-reported 14-item measure designed to probe how strategies are implemented in Kenya owned SCs. The scale consisted of two subscales; operationalization (Factor 1; six items) and institutionalization (Factor 2; fifteen items). All the statements were indexed on a five-point Likert scale: 1 = “Negligible,” 2 = “Minimal extent,” 3 = “Moderate extent,” 4 = “Large extent,” and 5 = “Very large extent.” The scores were within the range of 1 to 5, with top scores indicating a more extensive use of the identified practices of strategy implementation. The first step entailed determining the factorability of the scale by running the KMO sampling adequacy and Bartlett’s sphericity tests. The results from these tests are displayed in Table 3.2.

**Table 3.2: KMO and Bartlett’s Test for Strategy Implementation Scale**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.677
Bartlett’s Test of Sphericity	Approx. Chi-Square	478.731
	df	210
	Sig.	0.000

**Source:** Research Data (2021)

The KMO index obtained was 0.677. As this surpasses the recommended cut-off value of 0.5, it was concluded that the pilot sample size was sufficient with respect to the number of statements used to construct the scale. The Bartlett’s test of sphericity yielded a significant value of  $\chi^2 = 478.73$  ( $df = 21$ ,  $p < 0.05$ ) indicating that the 21-item correlation matrix was not an identity matrix or, put differently, the correlations among the items were high enough to suggest existence of extractable factors. Collectively, these results demonstrate that use of CFA was valid.

Next, PCA with Varimax rotational method was applied in the extraction of two factors corresponding to the two constructs measuring strategy implementation: strategy operationalization and strategy institutionalization. The portion of variance represented by each factor and the collective variance attributable to the two factors were examined.

Appendix IV shows a breakdown of the two types of variances. The two components or factors accounted for 43.54% and 13.39% of the total variance, respectively. In other words, more than half of the total variance (56.94%) was attributable to the two factors. Therefore, the two-factor solution fit the scale items sufficiently.

Table 3.3 displays the results of the rotated component matrix using Varimax rotational technique for the strategy implementation scale. It reveals the factor loadings of each statement or item on each of the two factors. The presentation of small coefficients with absolute values falling below 0.5 was suppressed as suggested by Hair et al. (2020).

**Table 3.3: Rotated Component Matrix for the Strategy Implementation Scale**

	Component	
	1	2
Documented policies detailing expectation and the resulting impact of strategy implementation exist (SIO1)	0.650	
The organization's strategic plan is broken down into work plans, complete with timelines and responsible officers (SIO2)	0.741	
Every division has its key performance indicators well defined (SIO3)	0.883	
Achievement of key performance indicators are used as means of performance improvement (SIO4)	0.624	
Net performance is obtained by summing more than one key performance indicators (SIO5)	0.817	
The firm has integrated information and communication systems that support strategy implementation (SIO6)	0.615	
The organization systems are subjected to review and redesign whenever there are major changes in strategy (SII1)		0.571
The organization lays emphasis on the need for staff to embrace and operate within the set core values (SII2)		0.719

**Table 3.3 continued...**

The overall organization structure is reviewed to be in line with strategy implementation (SII3)		0.708
The structure of the organization allows free flow of information throughout the organization and between other stakeholders (SII4)		0.552
The structure allow proper coordination within the organization (SII5)		0.652
Strategy implementation is cascaded at all levels of the organization (SII6)		0.504
Hierarchies and reporting lines are amended to ensure effective strategy implementation (SII7)		0.544
The existing systems are flexible as to accommodate any changes during strategy implementation (SII8)		0.754
The existing systems are integrated with those of our key strategic partners to enhance implementation of our strategy (SII9)		0.805
Achievement in strategy implementation is measured at all levels of the organization (SII10)		0.544
Staff are given room to explore new ways of strategy implementation (SII11)		0.827
The leadership styles exhibited by the top management in strategy implementation accommodate varying ideas (SII12)		0.698
The organization organizes team building sessions to enhance collective responsibility (SII13)		0.736
The organization rewards creativity and innovativeness during strategy implementation (SII14)		0.868
Rewards are used to enhance strategy implementation (SII15)		0.812

Extraction Method: PCA

**Source:** Research Data (2021)

The first factor appeared to represent strategy operationalization in that the first six items (SIO1 to SIO6) loaded highly on it. The second factor appeared to represent strategy institutionalization as the set of items from SII01 to SII15 correlated most highly on it. Recalling that the loadings can be interpreted as correlations between the items and the respective component, it was inferred that the items measured the intended constructs, which provided evidence of convergent validity. The items of Factor 1 (strategy operationalization) loaded considerably low (<0.5) on Factor 2 (strategy institutionalization), hence their suppression. Similarly, the manifest variables of Factor 2 loaded relatively low on Factor 1.

This suggests that there was low degree of correlation between the two factors and that the two were sufficiently distinct from each other. As a result, discriminant validity of the strategy implementation scale was confirmed.

### 3.6.2.2 Organizational Resources Scale

The organization resources scale was designed to have 19 items, parceled into two constructs namely, tangible and intangible resources. The tangible resources dimension comprised five items while the intangible resources had fourteen items. Each of these items was rated on a five-point Likert scale ranging from 1 (Negligible) to 5 (Very large extent). Higher ratings signified endowment with abundant organizational resources. The KMO test of sampling adequacy and the Bartlett’s sphericity test were carried out as a starting point for diagnosing the validity of the factor analysis procedure. The results produced from running these tests are depicted in Table 3.4.

**Table 3.4: KMO and Bartlett’s Test for the Organizational Resources**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.636
Bartlett’s Test of Sphericity	Approx. Chi-Square	327.812
	Df	171
	Sig.	0.000

**Source:** Research Data (2021)

The KMO statistic was 0.636 signifying the pilot data met the necessary requirement of sampling adequacy. The Bartlett’s statistic  $\chi^2 = 327.81$  ( $df = 171$ ,  $p < 0.05$ ) was found to be significant, pointing to existence of sufficient correlations among the items. Altogether, these tests indicate the data was factorable. After justifying the utility of factor analysis in the evaluation of the organizational resources scale, derivation of factors followed.



Two factors matching the two constructs, tangible and intangible resources, were derived using PCA and the Varimax technique. The contribution of the two factors in as far as explaining variability in the scale items is illustrated in Appendix V.

The results portray the two stipulated factors as adequate in accounting for the majority of variability in the 19 manifest variables or items. In particular, the two factors combined explained more than half (53.53%) of variability in the items. The first factor was responsible for 38.35% of the total variability while 15.17% was attributed to the second factor.

In conclusion, it was inferred that the predetermined two-factor solution represented the scale items well. The extracted factors were subjected to Varimax rotation method, which generated the loadings of each item on the factors. Following the guideline endorsed by Hair et al. (2020), loadings that failed to meet the 0.5 cut-off were expunged in the presentation of the factor loadings. The loadings of each item on the two factors are portrayed in Table 3.5.

**Table 3.5: Rotated Component Matrix for the Organizational Resources Scale**

	<b>Component</b>	
	<b>1</b>	<b>2</b>
The organization has adequate funds to support its operations (ORT1)		0.731
The organization has adequate and qualified employees to perform its functions (ORT2)		0.741
The organization has adequate office equipment (ORT3)		0.835
The organization has alternative sources of funding over and above government allocation (ORT4)		0.732
The organization has sufficient deposits in banks (ORT5)		0.619
The organization employees are skilled and experienced (ORT1)	0.654	
The organization employees are loyal (ORI2)	0.506	
The organization employees work as a team (ORI3)	0.566	

**Table 3.5 continued...**

The organization has put in place current technology and software to support its operations and customer service (ORI4)	0.678	
The organization has a good reputation in the industry (ORI5)	0.541	
The organization has a value brand in the industry (ORI6)	0.593	
The organization possesses unique resources (ORI7)	0.685	
The organization employees are sufficiently motivated (ORI8)	0.746	
The organization facilitates relevant training for its employees (ORI9)	0.542	
The relationship between employees and management is good (ORI10)	0.685	
The organization's management and leadership style are good (ORI11)	0.778	
The organization supports a culture of creativity and knowledge creation (ORI12)	0.877	
Employees are patriotic and supportive to the organization (ORI13)	0.890	
The organization possesses resources that are difficult to imitate by competitors (ORI14)	0.546	
The organization employees are skilled, knowledgeable and experienced (ORI15)	0.784	

Extraction Method: PCA

**Source:** Research Data (2021)

Table 3.5 shows that the first five measured variables saliently loaded onto the second component as demonstrated by the fairly large loadings. The remaining fifteen items that saliently loaded on the first component ranged from ORI1 to ORI15. Thus, the first component must have been intangible resources and the second, tangible resources.

The high correlations between items and their respective factors further provide solid confirmation that the items indeed measured their intended concepts and that the overall scale possessed satisfactory convergent validity. It is also apparent from the results that the items that loaded on the Factor 1 (tangible resources) did not load substantively on Factor 2 (intangible resources). Similarly, the items that loaded saliently on Factor 2 did not do so on Factor 1. This suggests that the correlation between Factor 1 and Factor 2 was low, demonstrating that the two factors were truly different from each other. This provided evidence that the scale had discriminant validity.

### 3.6.2.3 Operating Environment Scale

Operating environment was assessed with 25 statements, relating to three distinct aspects of the business environment in which the SCs operate; dynamism, complexity and political goodwill. The dynamism sub-scale comprised of seven items, the complexity sub-scale contained ten items and the political goodwill subscale consisted of eight items. The response on each of the item was captured using a five-point Likert response format ranging from 1 (Negligible) to 5 (Very large extent). As a preliminary step, the KMO and Bartlett tests were run to verify that the pilot data's attributes were factorable. The results of these tests are presented in Table 3.6.

**Table 3.6: KMO and Bartlett's Test for the Operating Environment Scale**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.693
Bartlett's Test of Sphericity	Approx. Chi-Square	497.936
	df	300
	Sig.	0.000

**Source:** Research Data (2021)

The KMO index of 0.693 surpassed the cut-off index of 0.5 thus highlighting that the pilot data was drawn from an adequate sample size. The Bartlett's sphericity test generated a significant value chi-square value  $\chi^2 = 497.94$  ( $df = 300$ ,  $p < 0.05$ ) demonstrating that the correlations underlying the scale items were large enough to allow for factors to be derived. Pooled together, these results show it was appropriate to carry out factor analysis.

Next, the 25 items were condensed into three factors equivalent to the three constructs designed to measure operating environment. This was facilitated by the PCA and Varimax rotational techniques.

Appendix VI illustrates the amount of variability in the 25 items linked to each of the factors. The first factor was linked to 23.29% of the total variance in the items. The second and third factor accounted for 15.4% and 12.97% of the total variance, respectively. Collectively, the three factors accounted for a cumulative shared variance of 51.67%. This portion was more than 50% thus proving that the three-factor solution was of substantive importance.

The final step entailed obtaining the rotated component matrix. This was a critical step in finding out how each item in the scale loaded across the three factors. The rotated component matrix for the operating environment scale is shown in Table 3.7.

**Table 3.7: Rotated Component Matrix for the Operational Environment Scale**

	Component		
	1	2	3
The organization is conversant with current status of its operating environment (OED1)			0.641
The current economic environment is threatening the achievement of the organization's objectives (OED2)			0.622
The current technological environment is facilitating the achievement of the organizations objectives (OED3)			0.691
The current laws in Kenya have an impact on the organization's strategy implementation (OED4)			0.674
The current operating environment impacts on the organization's strategy implementation (OED5)			0.589
There are many competing behaviours that are putting pressure on the organization's members (OED6)			0.658
Due to environmental pressure, members of the Organization abandon some positive courses of action (OED7)			0.647
Fluctuations in political regime in the country (OEC1)	0.836		
Fluctuations in interest rates (OEC2)	0.716		
Fluctuations in exchange rates (OEC3)	0.786		
Changes in technology (OEC4)	0.598		
Changes in taxation regime (OEC5)	0.847		
Fear by top management to face uncertainty in good time (OEC6)	0.532		
Legal framework touching on the mandate of your organization (OEC7)	0.659		

**Table 3.7 continued...**

Population growth (OEC8)	0.577		
Changes in policy guidelines governing SCs (OEC9)	0.566		
Informed stakeholders and interested parties (OEC10)	0.511		
The Chief Executive Officers must consult with the Ministry before making important decisions on behalf of the corporation (OEP1)		0.816	
Most of the Senior Management Officers in this Corporation are either appointed or seconded by more Senior Government Officers within the Ministry (OEP2)		0.560	
All strategic decisions taken by the board of directors of this corporation must always take into consideration the opinion of the Cabinet Secretary in the Parent Ministry (OEP3)		0.874	
All decisions by the board must be approved by the Ministry (OEP4)		0.622	
The Ministry closely monitors all key processes of strategy implementation in the corporation (OEP5)		0.857	
The corporation faces difficulties in the implementation of its strategies due to insufficient allocation of funds from the Parent Ministry (OEP6)		0.655	
Sometimes important decisions are made at the Ministry level and the board and top management only ensure that they are implemented whole (OEP7)		0.643	
The chief executive, the board and top management of this corporation operate entirely independently from any influence from any quarter whatsoever (OEP8)		0.602	

Extraction Method: PCA

**Source:** Research Data (2021)

The first seven items loaded highly on the third component, thus suggesting that the factor had to represent the dynamism construct. The items ranging from OEC1 to OEC8 loaded saliently on the first component indicating the factor had to correspond to the complexity construct. The remaining items loaded highly on the second component signifying that the component reflected the political goodwill component. In sum, this pattern of factor loadings suggest that the items measured exactly what they were designed to measure which confirms the convergent validity of the scale. No salient cross-loadings (>0.5) were observed implying that the correlations among the three factors were low and that the scale possessed discriminant validity.

### 3.6.2.4 Organizational Performance Scale

The performance scale comprised of three sub-scales; financial performance, operational efficiency and organizational relevance. The financial performance sub-scale contained a total of nine items while the operational efficiency and organizational relevance sub-scales comprised ten items each. All the items were based on a five-point Likert scale ranging from 1 (Negligible) to 5 (Very large extent). The KMO and Bartlett’s test of sphericity were first carried out in a bid to validate the factorability of the data. The outcome of these tests is shown in Table 3.8.

**Table 3.8:KMO and Bartlett’s Test for the Organizational Performance Scale**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.693
Bartlett’s Test of Sphericity	Approx. Chi-Square	712.811
	df	406
	Sig.	0.000

**Source:** Research Data (2021)

The results show that the KMO score was 0.693 suggesting that the dataset was sufficiently large. In addition, a significant Bartlett’s score was yielded  $\chi^2 = 712.81$  ( $df = 406$ ,  $p < 0.05$ ) guaranteeing the rejection of the hypothesis that the correlation matrix was a unitary matrix. Altogether these results offered a reasonable basis to proceed with the factor analysis. Once the factorability of the performance scale had been established, the dataset was subjected to PCA and Varimax rotation.

The generated results allowed examination of the amount of variance in the scale items accounted for by the three performance dimensions. These results are shown in Appendix VII. The first component explained an overwhelming majority (26.39%) of the gross variance, followed by the second component (18.94%). The third component represented the least variability amounting to 12.73%. Collectively, the factors accounted for more than half of the overall variance in the scale items (58.07%), which was sufficiently large.

As a final step the rotated component matrix was inspected in an attempt to assess how each scale items correlated with each extracted factor. A loading of above 0.5 indicated sufficiently large correlation. The rotated component matrix for the performance scale is shown in Table 3.9.

**Table 3.9: Rotated Component Matrix for the Organizational Performance Scale**

	Component		
	1	2	3
The organization has sustainable sources of funding (OPF1)	0.821		
The organization generates new sources of funding (OPF2)	0.722		
The organization has sustainable financial resources for continuity of programmes even with the exit of key donors (OPF3)	0.825		
The organization's revenue exceeds expenses (OPF4)	0.771		
The organization's assets outweigh its liabilities (OPF5)	0.702		
The organization has surplus financial resources to cater for economically depressed periods (OPF6)	0.882		
The organization carries out monitoring and evaluation of finance, capital assets and depreciation on a regular basis (OPF7)	0.579		
The organization has wide sources of funds including players from development partners and the private sector (OPF8)	0.865		
The amount of resources mobilized from development partners and the private sector have increased over the last five years (OPF9)	0.764		
The organization utilizes staff members optimally (OPE1)		0.654	
The organization makes maximum use of its facilities such as buildings and equipment (OPE2)		0.776	
The organization makes optimal use of its financial resources (OPE3)		0.705	
The organization has efficient operations and administrative framework to ensure efficient service delivery (OPE4)		0.729	
The organization builds on past performance to enhance improvement (OPE5)		0.594	
The organization's programmes are assessed on the basis of the cost (OPE6)		0.602	
The organization is prompt and efficient in service delivery (OPE7)		0.774	
The organization ensures proper maintenance of equipment to ensure efficient service delivery (OPE8)		0.701	
The organization is able to achieve its objectives on schedule (OPE9)		0.755	
The organization controls overhead costs (OPE10)		0.684	

**Table 3.9: Rotated Component Matrix for the organizational performance Scale cont...**

The organization constantly reviews its programmes as dictated by the prevailing environment (OPR1)			0.679
The organization constantly reviews its programmes based on its capacity in terms of infrastructure and human resource (OPR2)			0.790
Beneficiary-needs assessments are conducted regularly (OPR3)			0.763
The organization regularly adjusts the services that it offers in response to customer needs (OPR4)			0.719
Services offered by organization are constantly reviewed to reflect changing client type (OPR5)			
The organization constantly scans the environment as a basis for strategy review (OPR6)			0.669
The organization's partners have changed their attitude towards the organization from negative to positive (OPR7)			0.694
There has been increased number of new funders to the organization over the last five years (OPR8)			0.605
The old funders are continually willing to support the initiatives of the organization (OPR9)			0.702
The organization adequately balances stakeholders' demands (OPR10)			0.552

**Source:** Research Data (2021)

The first nine items loaded substantively on the first factor implying that the factor corresponded to the financial performance construct. The next items ranging from OPE1 to OPE10 loaded highly on the second component suggesting that the component was the operational process efficiency construct. The high factor loadings yielded by items OPR1 to OPR10 underlay the third factor, which had to be representative of the organizational relevance dimension. Generally, the high loadings indicated that the items converged on a common point, the respective constructs, thus confirming the convergent validity of the performance scale. No substantive cross-loadings above the 0.5 were noted signifying the correlations among the three constructs were relatively low and that in effect the scale had sound discriminant validity.



### 3.7 Operationalization of the Key Study Variables

The independent variable was strategy implementation while organizational resources and operating environment were the moderating variables. The outcome variable was organizational performance as displayed in Table 3.10. The table also indicates the measures used for each questionnaire item and highlights the supporting literature.

**Table 3.10: Operationalization of Study Variables**

<b>Variable</b>	<b>Nature of Variable</b>	<b>Variable Indicator</b>	<b>Measures Used</b>	<b>Questionnaire item</b>	<b>Supporting Literature</b>
<b>Strategy Implementation</b>	Predictor	Operationalization	Five-point Likert Scale	Question 5	Feo & Janssen, (2010), Stuart, (1992), Jonathan, (2009).
		Institutionalization	Five-point Likert Scale	Question 6	
<b>Organizational Resources</b>	Moderator	Tangible resources	Five-point Likert Scale	Question 7	Newbert, (2008), Barney, (1991), Makadok, (2001).
		Intangible resources	Five-point Likert Scale	Question 8	
<b>Operating Environment</b>	Moderator	Dynamism	Five-point Likert Scale	Questions 9	Naumann & Bennet (2000), John, Scholes & Whittington (2002)
		Complexity	Five-point Likert Scale	Question 10	
		Political good will and support	Five-point Likert Scale	Question 11	
<b>Organizational Performance</b>	Dependent	Financial performance	Five-point Likert Scale	Question 12	Kennerly & Neely (2003), Hubbard, (2009), Kaplan & Norton, (1992)
		Process efficiency	Five-point Likert Scale	Question 13	
		Relevance	Five-point Likert Scale	Question 14	

The independent variable was operationalized by operationalization and institutionalization while the dependent variable was operationalized by financial performance, process efficiency and relevance. Organizational resources were operationalized by tangible and intangible resources while operating environment was operationalized by dynamism, complexity, political good will and support.

### **3.8 Data Analysis**

The collected data was first subjected to an error-checking exercise so as to pave way for analysis meant to generate information related to the study variables. Diagnostic tests were also carried out before embarking on testing of hypotheses. In carrying out the analysis, two sets of statistics were sought after: descriptive and inferential. The descriptive type were used to crystallize the characteristics of the variables while inferential statistics facilitated the uncovering of the nature of interrelationships among the variables of interest.

This study incorporated multiple linear regression which allowed for an objective assessment of the effect of the predictor variables on the outcome variable (Sekaran & Bougie, 2013). It modeled the relationship between the variables by use of a linear equation which contains a coefficient,  $\beta_i$  for each independent variable. Table 3.11 shows a summary of how the hypotheses were tested. A determination of the normality of data was carried out through visual inspection of data plots. Normality testing is vital for statistical tests because such tests are centred on the assumption of normal distribution of data (Osborne & Waters, 2002). Multicollinearity which exists when the predictor variables are highly associated (Sekaran and Bougie (2013) was also tested.

**Table 3.11: Hypotheses, Analytical Statistical Models and Interpretation of Results**

Research Objectives	Hypotheses	Analytical Techniques	Interpretation
<p><b>Objective One:</b> To establish the effect of strategy implementation on performance of Kenya owned SCs.</p>	<p>H<sub>01</sub>: Strategy Implementation does not significantly influence performance of Kenya owned SCs.</p>	<p><b>Simple Regression Analysis:</b>  <math>P = f(\text{Strategy implementation})</math>  <math>P = \beta_0 + \beta_1 X_1 + \epsilon</math>                      Where P = Organizational performance composite score, <math>\beta_0</math> = constant term, <math>\beta_1</math> = regression coefficient, <math>X_1</math> = Strategy implementation composite score, and <math>\epsilon</math> = random error</p>	<p>R<sup>2</sup> depicts the amount of variation in organizational performance explained by strategy implementation. An <i>F</i>-ratio with an associated <i>p</i>-value less than 0.05 indicates that the regression model is significant. A <i>t</i>-test on the regression coefficient <math>\beta_1</math> that yields a significant outcome (<math>p &lt; 0.05</math>) points to a significant effect of strategy implementation on performance. This forms the basis for rejecting the hypothesis.</p>
<p><b>Objective Two:</b> To establish the influence of organizational resources on the relationship between strategy implementation and performance of Kenya owned SCs.</p>	<p>H<sub>02</sub>: Organizational Resources do not significantly moderate the relationship between strategy implementation and performance of Kenya owned SCs.</p>	<p><b>Hierarchical Regression</b>                      Step I: <math>P = f(\text{strategy implementation})</math>  <math>P = \beta_0 + \beta_1 X_1 + \epsilon</math>                      Step II: <math>P = f(\text{strategy implementation, organizational resources})</math>  <math>P = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \epsilon</math>                      Step III: <math>P = f(\text{strategy implementation, organizational resources, strategy implementation * organizational resources})</math>  <math>P = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 (X_1 * X_2) + \epsilon</math> ;                      Where P = Organizational performance composite score, <math>\beta_0</math> = constant term, <math>\beta_1, \beta_2, \beta_3</math> = regression coefficients, <math>X_1</math> = Strategy implementation composite score, <math>X_2</math> = Organizational resources composite score, <math>X_1 * X_2</math> = interaction term, and <math>\epsilon</math> = random error</p>	<p>R<sup>2</sup> depicts the amount of variation in organizational performance explained by a model. An <i>F</i>-ratio with an associated <i>p</i>-value less than 0.05 indicates that the regression model is significant. A <i>t</i>-test on the regression coefficient <math>\beta_3</math> that yields a significant outcome (<math>p &lt; 0.05</math>) confirms the moderating effect of organizational resources on the link between strategy implementation and organizational performance. This forms the basis for rejecting the hypothesis.</p>

**Table 3.11 continued...**

<p><b>Objective Three:</b> To determine the influence of operating environment on the relationship between strategy implementation and performance of Kenya owned SCs.</p>	<p>H<sub>03</sub>: Operating Environment does not significantly moderate the relationship between strategy implementation and performance of Kenya owned SCs.</p>	<p><b>Hierarchical Regression</b> Step I: P =f (strategy implementation) P= <math>\beta_0 + \beta_1 X_1 + \epsilon</math> Step II: P = f (strategy implementation, operating environment) P= <math>\beta_0 + \beta_1 X_1 + \beta_2 X_2 + \epsilon</math> Step III: P = f (strategy implementation, operating environment, strategy implementation * operating environment) P= <math>\beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 (X_1 * X_2) + \epsilon</math> ; Where P = Organizational performance composite score, <math>\beta_0</math>= constant term, <math>\beta_1, \beta_2, \beta_3</math> = regresson coefficients, <math>X_1</math>= Strategy implementation composite score, <math>X_2</math> = operating environment composite score, <math>X_1 * X_2</math> = interaction term, and <math>\epsilon</math>=error term.</p>	<p>R<sup>2</sup> depicts the amount of variation in organizational performance explained by a model An <i>F</i>-ratio with an associated <i>p</i>-value less than 0.05 indicates that the regression model is significant. A <i>t</i>-test on the regression coefficient <math>\beta_3</math> that yields a significant outcome (<i>p</i> &lt; 0.05) confirms the moderating effect of operating environment on the link between strategy implementation and organizational performance. This forms the basis for rejecting the hypothesis.</p>
<p><b>Objective Four:</b> To determine joint effect of strategy implementation, organizational resources and operating environment on the performance of Kenya owned SCs.</p>	<p>H<sub>04</sub>: The joint influence of strategy implementation, organizational resources and operating environment is not greater than the influence of the sum total of the separate variables on the performance of Kenya owned SCs.</p>	<p><b>Simple and Multiple Linear Regression</b> P= f (strategy implementation) P= <math>\beta_{01} + \beta_{11} X_1 + \epsilon</math> P= f (organizational resources) P= <math>\beta_{02} + \beta_{22} X_2 + \epsilon</math> P= f(operating environment) P= <math>\beta_{03} + \beta_{33} X_3 + \epsilon</math> P= f (strategy implementation, organizational resources, operating environment) P= <math>\beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon</math> Where Where P = Organizational performance composite score, <math>\beta_{01}, \beta_{02}, \beta_{03}</math> <math>\beta_0</math> = constant terms, <math>\beta_{11}, \beta_{12}, \beta_{13}, \beta_1, \beta_2, \beta_3</math> = regresson coefficients, <math>X_1</math>= Strategy implementation composite score, <math>X_2</math> = organizational resources composite score, <math>X_3</math> = operating environment composite score, and <math>\epsilon</math>=error term.</p>	<p>R<sup>2</sup> depicts the amount of variation in performance explained by a model An <i>F</i>-ratio with an associated <i>p</i>-value less than 0.05 indicates that the regression model is significant. If the R<sup>2</sup> for P= f (strategy implementation, organizational resources, operating environment) exceeds the sum of R<sup>2</sup> for P= f (strategy implementation), P= f (organizational resources), and P= f(operating environment), the hypothesis is rejected.</p>

Homoscedasticity is assumed when there is constance of variability of error terms across the estimates of the outcome variable (Hair, Black & Anderson, 2010). The independence of error terms was assessed through the Breusch-Pagan test and graphically by plotting a residual plot of standardized residuals versus predicted values.

## CHAPTER FOUR

### DATA ANALYSIS AND FINDINGS

#### 4.1 Introduction

The goal of this chapter is to present the results obtained from the analysis of the data collected in the study. The chapter starts with a report on the study's response rate. The background information relating to the SCs surveyed is then presented. Next, descriptive statistics demonstrating how the variables of interest were manifested are presented. This is then followed by presentation of results derived upon testing the hypothesized relationships corresponding to the study objectives. Explanations and interpretations of the results derived from the tests are also provided. The chapter concludes with a summary section briefly covering the key findings emanating from both the descriptive and inferential analyses.

#### 4.2 Response Rate

A high non response to a survey instrument may lead to undesirable systematic variance from the true outcome of a survey (McNabb, 2013). Therefore, to gauge the overall quality of a survey, it is critical to compute the response rate as a preliminary step. The response rate indicates the percentage of participants who complete a survey (Bell et al., 2019). A breakdown of this study's response rate is displayed in Table 4.1.

**Table 4.1: Response Rate**

<b>Response Status</b>	<b>Frequency</b>	<b>Per cent (%)</b>
Eligible and completed	181	72.69
Eligible and did not complete	68	27.31
<b>Total</b>	<b>249</b>	<b>100.00</b>

**Source:** Research Data (2021) .

A total of 249 SCs were selected for inclusion in the study. Of these 249 eligible Corporations, only 181 returned usable questionnaires giving a response rate of 72.69%. The remainder either did not initiate the survey or completed an insufficient number of items. Bell et al. (2019) regards a rate of 60-69% as satisfactory; of 70-85% as very good and one that is at least 85 % as excellent. Consistent with this guideline, it is apparent that the rate achieved for this inquiry was very good in producing representative results. This response rate is close to the one realized by Otieno, Ogutu, Ndemo and Pokhariyal (2020) of 72.4% in their study that focused on Kenyan SCs as well.

### **4.3 Background Information**

The purpose of this section is to report on the organizational features of the SCs surveyed. Among the key aspects considered are the parent ministry or department, core function, year of establishment (age), number of employees and yearly budget size. This information set to provide a context within which to interpret the study's findings.

#### **4.3.1 Parent Ministry**

Each statutory SC acts under the supervision of a parent ministry. The distribution of the statutory SCs according to their respective parent ministries was explored with the aid of frequencies and percentages. Table 4.2 shows how the organizations were distributed.

**Table 4.2: Distribution of SCs by Parent Ministry/Department**

<b>Parent Ministry/Department</b>	<b>Frequency</b>	<b>Per cent (%)</b>
Education	36	19.9
Agriculture, livestock, fisheries & irrigation	22	12.2
National treasury	16	8.8
Transport & infrastructure development	16	8.8
Industrialization, trade & enterprise development	13	7.2
Sports, culture & heritage	8	4.4
Water & sanitation	8	4.4
Energy	7	3.9
Labour & social protection	7	3.9
Tourism & wildlife	7	3.9
Department of justice	6	3.3
Health	6	3.3
ICT	6	3.3
Interior & coordination of National Government	5	2.8
Finance	4	2.2
Public service, youth & gender affairs	4	2.2
Environment & forestry	3	1.7
Petroleum & mining	3	1.7
East African Community & regional development	2	1.1
Defense	1	0.6
Devolution & Arid and Semi-arid Lands (ASALs)	1	0.6
<b>Total</b>	<b>181</b>	<b>100.00</b>

**Source:** Research Data (2021)

The SCs surveyed in this study were spread across different ministries. A majority of the entities were concentrated in the Education sector (19.9%) followed by the Agriculture sector with 12.2%. At 8.8%, the National Treasury and Transport sectors equally accounted for the third largest share of SCs. The least concentration of the Corporations was in the ministries of Defense and Devolution & ASALs ministries as each accounted for 0.6%. These results suggest that the dataset was adequate in capturing the diversity of SCs.



### 4.3.2 Number of Employees

The participants were requested to indicate the size of the staff working for their Corporations. To this end, the respondents were provided with four options. The first option represented a range of not more than 200 employees and the second option, a range of between 201 and 400 employees. The third represented a band of between 401 and 600 employees whereas the fourth denoted a range of at least 601 workers. The responses were summarized using frequencies and percentages as shown in Table 4.3.

**Table 4.3: Distribution of SCs by Number of Employees**

<b>Number of Employees</b>	<b>Frequency</b>	<b>Per cent (%)</b>
Up to 200	102	56.4
Between 201 and 400	17	9.4
Between 401 and 600	27	14.9
601 and above	35	19.3
<b>Total</b>	<b>181</b>	<b>100.00</b>

**Source:** Research Data (2021)

It is apparent from Table 4.3 that more than half of the Corporations (56.4%) had not more than 200 employees. The remaining Corporations (43.6%) had over 200 employees. Taking the number of employees as a proxy for organizational size, the SCs could be described as ranging from medium-sized to large organizations.

### 4.3.3 Core Function

The distribution of the SCs based on their core functions was also examined. Four core functions were considered; commercial, non-commercial, industry regulation and both commercial and regulation. A summary of the obtained results is provided in Table 4.4.

**Table 4.4: Distribution of SCs by Core Function**

<b>Function</b>	<b>Frequency</b>	<b>Percent (%)</b>
Commercial	45	24.9
Non-commercial	80	44.2
Industry regulation	45	24.9
Both commercial and regulatory	11	6.1
<b>Total</b>	<b>181</b>	<b>100.00</b>

**Source:** Research Data (2021)

The majority of the Corporations (44.2%) engaged principally in non-commercial activities. Next, entities involved in commercial activities and industry regulation were even, constituting 24.9% of the dataset each.

Only 6.1% of the Corporations served the double role of commercial and industry regulation. These results imply that all categories of SCs with reference to core function were adequately covered in the study.

#### **4.3.4 Years of Operation**

The operative duration of the SCs was also explored. To this end, the respondents were requested to indicate the year their respective Corporations were founded. From the responses, the age of the Corporations was derived and the results are summarized in Table 4.5.

**Table 4.5: Distribution of SCs by Years of Operation**

<b>Years of Operation</b>	<b>Frequency</b>	<b>Percent (%)</b>
Below 5 years	12	6.6
5-10 years	48	26.5
11-16 years	25	13.8
17-22 year	19	10.5
Above 22 years	77	42.5
<b>Total</b>	<b>181</b>	<b>100.00</b>

**Source:** Research Data (2021).

It is apparent from Table 4.5 that a vast majority of SCs (42.5%) had been in existence for over 22 years. Cumulatively, more than half of the Corporations (66.8%) had been operational for more than 10 years. Only 6.6% had lasted less than 5 years. These results suggest that a majority of the Corporations surveyed in the study had attained organizational maturity and sufficient experience with strategy implementation.

#### 4.3.5 Budget Size

The annual budget controlled by each SC was also explored. Three budget estimates were considered; up to 2 billion, over 2 billion but less than 10 billion, over 20 billion but less than 50 billion and over 50 billion. Table 4.6 shows the classification of the SCs by budget size.

**Table 4.6: Distribution of SCs by Budget Size**

<b>Budget Controlled</b>	<b>Frequency</b>	<b>Percent (%)</b>
Up to 2 billion	113	63.00
Over 2 billion and up to 10 billion	46	25.40
Over 10 billion and up to 50 billion	12	6.60
Above 50 billion	9	5.00
<b>Total</b>	<b>181</b>	<b>100.00</b>

**Source:** Research Data (2021)<sup>44</sup>

A vast majority of corporations (63%) controlled an annual budget of not more than Ksh. 2 billion. Following this class were Corporations that controlled between Ksh. 2 billion and Ksh. 10 billion (25.4%). Only 5% of the Corporations managed a budget beyond Ksh. 50 billion. Generally, these results point to the diversity in budget size of the SCs surveyed in the study.

#### **4.4 Manifestation of Study Variables**

This section is devoted to the exploration of the variables of interest in a descriptive manner. The variables were examined using descriptive statistical tools with the goal of unearthing emerging patterns and features otherwise undetectable within the disjointed data collected. In so doing, the statistics also shed light on the manifestation of the study variables in the SCs.

The specific statistics used include mean, standard deviation, coefficient of variation (CV) and one sample *t*-test. The mean provides a measure of location, whereas the standard deviation and coefficient of variation (standard deviation divided by mean) assesses the variability of the dataset. Application of the *t*-test served to ascertain whether or not the differences in opinion among the participants with respect to the questionnaire items were attributable to chance. The following sub-sections detail the manifestation of strategy implementation, organizational resources, operating environment and performance in the SCs surveyed.

##### **4.4.1 Strategy Implementation**

Strategy implementation was assessed using two constructs; strategy operationalization and institutionalization. Each of these constructs was assessed using a five-point Likert scale ranging from 1 to 5: 1 = “Negligible,” 2 = “Minimal extent,” 3 = “Moderate extent,” 4 = “Large extent,” and 5 = “Very large extent.” A descriptive analysis of the responses to each of these constructs was performed and the results are expounded in the subsequent sub-sections.

#### 4.4.1.1 Strategy Operationalization

The participants were provided with a list of statements evaluating strategy operationalization practices and asked to rank the extent to which they perceived the practices were embodied in the functions of their respective Corporations. The responses were based on a five-point Likert scale with higher rankings representing extensive adoption of the particular practice. Table 4.7 presents the results yielded from analysis of the responses.

**Table 4.7: Manifestation of Strategy Operationalization**

<b>Statement</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>CV (%)</b>	<b>t-statistic</b>	<b>df</b>	<b>Sig. (2-tailed)</b>
The organization's strategic plan is broken down into work plans, complete with timelines and responsible officers	4.67	0.606	12.976	37.040	180	0.000
Each division has its key performance indicators well defined	4.60	0.728	15.826	29.615	180	0.000
Documented policies detailing expectation and the resulting impact of strategy implementation exist	4.56	0.608	13.333	34.449	180	0.000
Achievement of key performance indicators are used as means of performance improvement	4.45	0.763	17.146	25.613	180	0.000
Net performance is obtained by summing more than one key performance indicators	4.43	0.716	16.163	26.871	180	0.000
The organization has installed information and communication systems that support strategy execution	4.06	0.941	23.177	15.084	180	0.000
<b>Strategy Operationalization Index</b>	<b>4.46</b>	<b>0.555</b>	<b>12.444</b>	<b>35.421</b>	<b>180</b>	<b>0.000</b>

**Source:** Research Data (2021)

The mean score for the strategy operationalization index was 4.46. This rating falls slightly above the “large extent” rating on a five-point Likert scale suggesting that the SCs operationalize their strategic desirables to a large extent. All the six indicators had a mean rating of at least 4. However, considerable differences in the application of various elements of strategy operationalization were noted. The element, “The organization’s strategic plan is broken down into work plans, complete with timelines and responsible officers” ranked the highest with a mean rating of 4.67 ( $SD=0.61$ ).

It can therefore be inferred that this is the most extensively used practice of operationalizing strategy in SCs. Similarly, the following indicators had a relatively high mean rating: “every division has its key performance indicator well defined” and “documented policies detailing expectation and the resulting impact of strategy implementation exist.” The two successive statements had a mean score of 4.67 ( $SD=0.73$ ) and 4.6 ( $SD=0.61$ ), respectively. The results also reveal that the element; “The organization has installed information and communication systems that support strategy execution” had the least mean rating ( $M=4.06$ ,  $SD=0.941$ ). This implies that despite its extensive application, SCs place relatively less emphasis on the practice. The variability of the responses with regard to each statement is also clearly depicted in the results. The statement, “The organization has installed information and communication systems that support strategy execution” had the highest CV (23.18%). This implies there was relatively high variation in the participants’ responses with regard to this practice of strategy operationalization.

Conversely, the statement, “The organization’s strategic plan is broken down into work plans, complete with timelines and responsible officers” recorded the least CV of 12.98% indicating low variability in the participants’ responses. The one-sample *t*-test results for the strategy operationalization index  $t(180) = 4.46, p < 0.05$  show that the average score of the entire construct ( $M = 4.46$ ) was significantly different from the midpoint of the rating scale (3). Consequently, the finding that the SCs operationalize their strategic desires to a large extent did not occur by chance.

Significant *t*-test results were also reported for all the individual strategy operationalization practices (indicators) considered in the study. Therefore, these results indicate the large extensive use of the individual practices by the SCs was not a product of chance.

#### **4.4.1.2 Strategy Institutionalization**

A 15-item scale was designed to evaluate the extent of strategy institutionalization in SCs. All the items were captured on a five-point Likert scale (1= “Negligible” to 5 = “Very large extent”) with higher ratings reflecting extensive use of a particular institutionalization practice. The participants’ responses’ were analyzed descriptively and the results are summarized in Table 4.8.

**Table 4.8: Manifestation of Strategy Institutionalization**

<b>Statement</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>CV (%)</b>	<b>t-statistic</b>	<b>Df</b>	<b>Sig. (2-tailed)</b>
Strategy implementation permeates to all levels of the organization	4.263	0.819	19.211	20.747	180	0.000
The structure allows proper coordination within the organization	4.183	0.778	18.599	20.463	180	0.000
Hierarchies and reporting lines are amended to ensure effective strategy implementation	4.161	0.838	20.139	18.647	180	0.000
Success in carrying out strategic activities is measured at all levels of the organization	4.156	0.868	20.885	17.909	180	0.000
The overall organization structure is reviewed to be in line with strategy implementation	4.094	0.893	21.812	16.489	180	0.000
The structure of the organization allows free flow of information throughout the organization	4.050	0.777	19.185	18.191	180	0.000
The top management employs leadership styles in strategy implementation that are accommodative to varying ideas	4.017	0.928	23.102	14.742	180	0.000
The existing systems are integrated with those of our key strategic partners to enhance implementation of our strategy	3.972	0.878	22.105	14.892	180	0.000
The existing systems are flexible as to accommodate any changes during strategy implementation	3.956	0.822	20.779	15.638	180	0.000
The organization systems undergo redesigning and remodeling whenever there are major changes in strategy	3.878	0.821	21.171	14.395	180	0.000
Individuals are given room to explore new ways of strategy implementation	3.856	0.908	23.548	12.683	180	0.000
The organization lays emphasis	3.757	0.923	24.567	11.034	180	0.000



**Table 4.8: Manifestation of Strategy institutionalization continued...**

on the need for staff to embrace and operate within the set core values						
The organization organizes team building sessions to enhance collective responsibility	3.587	1.109	30.917	7.116	180	0.000
The organization rewards creativity and innovativeness during strategy implementation	3.322	1.119	33.685	3.875	180	0.000
Rewards are used to enhance strategy implementation	3.206	1.205	37.586	2.295	180	0.023
<b>Strategy Institutionalization Index</b>	<b>3.897</b>	<b>0.657</b>	<b>16.859</b>	<b>35.421</b>	<b>180</b>	<b>0.000</b>

**Source:** Research Data (2021)

The average score associated with the entire strategy institutionalization construct was 3.897 ( $SD = 0.66$ ). The score rounds off to 4, which represents the ‘large extent’ rating on a five-point Likert scale.

This indicates that the SCs incorporate the practice of strategy institutionalization to a relatively large extent. The results also reveal that varying levels of emphasis are placed in different elements of strategy institutionalization. The highest rated statement was, “Strategy implementation is cascaded at all levels of the organization” which had a mean score of 4.263 ( $SD = 0.82$ ). Next, was the statement, “The structure allows proper coordination within the organization” with an average score of 4.183 ( $SD = 0.78$ ). The third top ranked statement was, “Hierarchies and reporting lines are adjusted to ensure the strategic activities are carried out” which had a mean rating of 4.16 ( $SD = 0.84$ ).

Generally, these results indicate that strategy institutionalization in the SCs features heavy emphasis on the three elements or practices. Taken together, these elements suggest that the SCs consider hierarchical and rigid organizational structures to be of utmost importance in assisting the creation of a strategic consensus throughout the organization. It also emerged that less emphasis was placed on reward systems in assisting strategy implementation. This was reflected by the low mean ratings reported for the statements, “The organization rewards creativity and innovativeness during strategy implementation” and “Rewards are used to enhance strategy implementation” which had mean scores of 3.322 ( $SD=1.12$ ) and 3.206 ( $SD=1.21$ ), respectively.

The variance in the participants’ responses was highest for the statement, “Rewards are used to enhance strategy implementation” which had a CV of 37.59%. The high variability implies that there was low consensus among the respondents as far as how this institutionalization component is manifested in their respective Corporations.

In contrast, the lowest response variance was observed in reference to the statement, “The structure allows proper coordination within the organization” associated with a CV of 18.60%. This implies that the participants agreed to a relatively high degree as pertains to how this component is applied in their organizations.

The  $p$ -values for all the statements used to measure strategy institutionalization did not surpass the alpha value threshold of 0.05. As such, the reported average rating associated with each differed significantly from the midpoint of the rating scale (3). In other words, the mean scores yielded for every item did not happen randomly but as a result of explainable factors. Table 4.9 shows summary results for strategy implementation.

**Table 4.9: Summary of Strategy Implementation Descriptive Results**

<b>Index</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>CV (%)</b>	<b>t-statistic</b>	<b>df</b>	<b>Sig. (2-tailed)</b>
Strategy Operationalization	4.46	0.555	12.444	35.421	180	0.000
Strategy Institutionalization	3.897	0.657	16.859	35.421	180	0.000
<b>Strategy Implementation (Overall)</b>	<b>4.179</b>	<b>0.557</b>	<b>13.33</b>	<b>28.505</b>	<b>180</b>	<b>0.000</b>

**Source:** Research Data (2021)

Of the two strategy implementation dimensions, operationalization was the most extensively adopted in the SCs as indicated by a mean score of 4.46 (SD=0.56). The strategy institutionalization dimension had a relatively higher CV (16.86%) than the operationalization dimension (12.44%) indicating that there was less unanimity among the participants in the degree to which it is applied in the SCs. Significant t-test results were reported for both constructs signifying that their large degree of usage in the SCs did not occur out of chance.

Overall, the results reveal that strategy implementation was applied in the SCs to a relatively large degree indicated by an average score of 4.18 (SD=0.56). The one-sample t-test results for the strategy implementation index  $t(180) = 28.51, p < 0.05$  show that the mean rating linked to the entire variable (M=4.18) was significant. This confirms that the outcome that the SCs implement their strategies to a large extent was not out of randomness.

#### **4.4.2 Organizational Resources**

The study sought to evaluate the amount of resources possessed by the SCs. To this end, two types of organizational resources were assessed; tangible and intangible. Two separate scales were developed to assess the two types of resources. The scales were based on a five-point Likert scale format ranging from 1 (Negligible) to 5 (Very large extent). The focus of this section is to present the descriptive statistical results of the two constructs.

#### 4.4.2.1 Tangible Resources

The researcher sought to probe the extent to which the SCs were endowed with tangible resources. The tangible resources construct was operationalized into 5 items. The participants were then requested to report on the extent to which each of the items was reflected in their Corporations using a five-point Likert scale. Table 4.10 displays the results derived from analysis of the responses.

**Table 4.10: Manifestation of Tangible Resources**

<b>Statement</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>CV (%)</b>	<b>t-statistic</b>	<b>Df</b>	<b>Sig. (2-tailed)</b>
The organization has adequate office equipment	3.69	0.798	21.626	1.376	180	0.170
The organization has adequate and qualified employees to perform its functions	3.63	0.857	23.609	9.860	180	0.000
The organization has adequate funds to support its operations	3.09	0.923	29.871	11.616	180	0.000
The organization has alternative sources of funding over and above government allocation	2.80	1.184	42.286	-2.223	180	0.027
The organization has sufficient deposits in banks	2.59	1.214	46.873	-4.547	180	0.000
<b>Tangible Resources Index</b>	<b>3.16</b>	<b>0.739</b>	<b>23.386</b>	<b>2.934</b>	<b>180</b>	<b>0.004</b>

**Source:** Research Data (2021).

The tangible resources index had a mean rating of 3.16. This rating falls slightly above the ‘moderate extent’ rating on a five-point Likert scale. It would therefore, imply that the SCs have a fair amount of tangible resources at their disposal. The results, however, indicate considerable differences in the extent to which the SCs were endowed with specific tangible resources. It is evident that the Corporations were endowed to a large extent with office equipment and qualified employees.

This is reflected by the relatively high mean ratings for the statements, “The organization has adequate office equipment” and “The organization has adequate and qualified employees to perform its functions” which had average ratings of 3.69 ( $SD=0.798$ ) and 3.63 ( $SD=0.857$ ), respectively. In contrast, the Corporations had relatively fewer tangible resources in connection to deposits in banks as highlighted by the lowest average score of 2.59 ( $SD=1.21$ ) reported for the statement, “The organization has sufficient deposits in banks.” Relatively high variability in responses was observed for the statements, “The organization has sufficient deposits in banks” and “The organization has alternative sources of funding over and above government allocation” with CVs of 46.87% and 42.29%. This is an indication that the participants highly disagreed on how extensively they perceived the two statements were manifested in their organizations.

Contrastingly, the statement, “The organization has adequate office equipment” was linked to a CV of 21.63%, the lowest of all the statements. As such, it was inferred that there was reasonably high consensus among the participants on the degree to which the statement applied to their organizations.

The  $p$ -values for all the items as demonstrated by the one-sample  $t$ -test statistics fell below 0.05 apart from the statement, “The organization has adequate office equipment” which had a  $p$ -value of 0.17. This suggests that with the exception of this statement, the outcomes reported for all the other specific tangible resources were significantly different from the midpoint of the rating scale and occurred arbitrarily. However, considering the tangible resources as a whole, the outcome that that SCs have a fair amount of tangible resources at their disposal happened randomly as reflected by the significant  $t$ -test results,  $t(180)=2.93$ ,  $p < 0.05$ .

#### 4.4.2.2 Intangible Resources

The level of intangible resources possessed by the SCs was evaluated using a scale comprising 14 items. The participants were asked to report on the extent to which these items were reflected in the Corporations using a five-point Likert scale. Subsequently, the responses were analyzed descriptively and the results are presented in Table 4.11.

**Table 4.11: Manifestation of Intangible Resources**

<b>Statement -</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>CV (%)</b>	<b>t-statistic</b>	<b>df</b>	<b>Sig. (2-tailed)</b>
The organization employees are skilled and experienced	4.222	0.655	15.414	25.123	180	0.000
The organization has a good reputation in the industry	4.089	0.748	18.393	19.598	180	0.000
The organization has put in place current technology and software to support its operations and customer service	4.044	0.855	21.142	16.431	180	0.000
The organization employees are loyal	4.033	0.714	17.704	19.467	180	0.000
The organization's management and leadership style are good	3.967	0.759	19.133	17.126	180	0.000
The organization has a value brand in the industry	3.956	0.842	21.284	15.266	180	0.000
The organization employees work as a team	3.917	0.809	20.654	5.813	180	0.000
The organization encourages a structure of knowledge creation and accumulation	3.911	0.839	21.452	14.617	180	0.000
The organization possesses unique resources	3.911	0.902	23.063	13.576	180	0.000
The relationship between employees and management is good	3.894	0.695	17.848	17.299	180	0.000
Employees are patriotic and supportive to the organization	3.793	0.841	22.172	12.688	180	0.000
The organization facilitates relevant training for its employees	3.633	0.966	26.589	8.825	180	0.000

**Table 4.11: Manifestation of Intangible Resources continued...**

The organization possesses resources that are difficult to imitate by competitors	3.578	1.140	31.861	13.576	180	0.000
The employees are sufficiently motivated	3.422	0.977	28.551	5.813	180	0.000
<b>Intangible Resources Index</b>	<b>3.884</b>	<b>0.548</b>	<b>14.109</b>	<b>21.678</b>	<b>180</b>	<b>0.000</b>

**Source:** Research Data (2021)

The mean score for the intangible resources dimension was 3.88 ( $SD=0.548$ ). Based on the five-point Likert scale, this is close to the ‘large extent’ rating. This implied that the respondents perceived that their Corporations possessed large reserves of intangible resources. It is also apparent that the organizations were not uniformly endowed with various intangible resources. This is evidenced by the different ratings that the different components of intangible resources whereby some of the statements were ranked relatively higher than others. The top ranked statement was, “The organization employees are knowledgeable in terms of skills and experiences” with an average rating of 4.22 ( $SD=0.655$ ).

This shows that the SCs placed a lot of emphasis on the skills of their employees. The next top ranked items were, “The organization has a good reputation in the industry” and “The organization invests in modern technology including software to support operations and interactions with customers.” The two statements reported mean scores of 4.09 ( $SD=0.748$ ) and 4.04 ( $SD=0.855$ ), respectively, indicating that SCs invest to a large extent in building their reputation and embedding technology in their processes. However, the Corporations fall short in leveraging the motivation of their employees as highlighted by the low average score of 3.42 ( $SD=0.98$ ) for the statement, “The employees are sufficiently motivated.”

Table 4.11 shows that the statement, “The organization possesses resources that are difficult to imitate by competitors” was associated with the highest CV of 31.86%. This was closely followed by the statement, “The employees are sufficiently motivated” with a score of 28.55%. These scores suggest that there was high disparity in the participant’s responses as pertains to the extent to which the two resources were manifested in their respective Corporations. The statement, “The organization employees are knowledgeable in terms of skills and experiences” was linked to the least CV of 15.41% suggesting that the participants were highly unanimous as pertains to how this particular statement was manifested in their Corporations. Significant *t*-test results were obtained for every intangible resource as all the *p*-values did not surpass the critical cut-off of 0.05. As such, it was inferred that the average rating associated with each intangible resource was significantly different from the midpoint of the rating scale and did not occur by chance but as a result of explainable causes. Similar significant results were reported for the entire construct of intangible resource.

Descriptive statistics for the entire construct is shown in Table 4.12.

**Table 4.12: Summary of Descriptive Statistics for Organizational Resources**

<b>Index</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>CV (%)</b>	<b><i>t</i>-statistic</b>	<b>df</b>	<b>Sig. (2-tailed)</b>
Tangible Resources	3.160	0.739	23.386	2.934	180	0.004
Intangible Resources	3.897	0.548	14.109	21.678	180	0.000
<b>Organizational Resources (Overall)</b>	<b>3.522</b>	<b>0.565</b>		<b>12.436</b>	<b>180</b>	<b>0.000</b>

**Source:** Research Data (2021).



The mean rating for the organizational resources was 3.52 ( $SD=0.57$ ) which can be rounded off to 4, implying that SCs have adequate resources to support their operations. Of these resources, intangible resources account for the largest share. The significant  $t$ -test results ( $t(180)=12.44, p < 0.05$ ) also indicate that the mean rating obtained for the overall organizational resources construct was different from the midpoint of the rating scale (3) and hence was not a random occurrence.

#### **4.4.3 Operating Environment**

The study sought to explore how performance of the SCs derives from the environment in which they operate. Three key aspects of the operating environment were examined; dynamism, complexity and political goodwill and support. Each of these dimensions was assessed using a scale based on a five-point Likert scale. The descriptive results of the three dimensions are detailed in this section.

##### **4.4.3.1 Dynamism**

The dynamism dimension was measured using a set of seven items on a five-point Likert scale where 1 = "Negligible," 2 = "Minimal extent," 3 = "Moderate extent," 4 = "Large extent," and 5 = "Very large extent." It is on this scale that the participants rated the items on the basis of how extensively they applied to their Corporations.

The responses were summarized as shown in Table 4.13.

**Table 4.13: Manifestation of Dynamism**

<b>Statement</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>CV (%)</b>	<b>t-statistic</b>	<b>df</b>	<b>Sig. (2-tailed)</b>
The organization is conversant with current status of its operating environment	4.337	0.717	16.532	25.100	180	0.000
The current technological environment is facilitating the achievement of the organization's objectives	4.204	0.801	19.053	20.234	180	0.000
The current operating environment has an influence on the organization's strategy implementation	4.173	0.690	16.535	22.884	180	0.000
The current laws in Kenya have an impact on the organization's strategy implementation	4.095	0.772	18.853	19.072	180	0.000
The current economic environment is threatening the achievement of the organization's objectives	3.829	0.982	25.646	11.350	180	0.000
There are many competing behaviours that are putting pressure on the organization's members	3.402	1.118	32.863	4.840	180	0.000
Due to environmental pressure, members of the organization abandon some positive courses of action	3.050	1.248	40.918	0.539	180	0.591
<b>Dynamism Index</b>	<b>3.870</b>	<b>0.484</b>	<b>12.507</b>	<b>24.205</b>	<b>180</b>	<b>0.000</b>

**Source:**Research Data (2021)

The mean score for the entire dynamism construct was 3.87 ( $SD=0.484$ ), which is close to the 'large extent' rating on a five-point Likert scale. This suggests that the operating environment for SCs is highly dynamic. The statement, "The organization is conversant with current status of its operating environment" had the highest mean rating of 4.34 ( $SD=0.72$ ). This indicates that the SCs are able to scan trends and critical changes occurring within their operating environment.

The next top rated statement was, “The current technological environment is facilitating the achievement of the organization’s objectives” which had an average rating of 4.20 ( $SD=0.80$ ). This has the implication that the technological changes and challenges that may characterize the operating environment are not too dynamic to be leveraged by the SCs.

The third top rated statement was, “The current operating environment has an influence on the organization’s strategy implementation” associated with a mean rating of 4.17 ( $SD=0.69$ ). This suggests that the operating environment is highly dynamic and affects how the SCs carry out strategy implementation. The results also show that the least ranked statement was, “Due to environmental pressure, members of the organization abandon some positive courses of action” which had an average score of 3.05 ( $SD=1.25$ ). This suggests that the operating environment for SCs is dynamically complex to a large extent and that counter-intuitive behaviour among employees emerges over time. A high degree of unanimity in responses was observed for the statement, “The organization is conversant with current status of its operating environment” which had a CV of 16.532%. Next in rank was the statement, “The current operating environment has an influence on the organization’s strategy implementation” which reported a CV score of 16.535%.

On the other hand, the highest variability in participant’s responses was linked to the statement, “Due to environmental pressure, members of the organization abandon some positive courses of action” with a CV of 40.918%. A one-sample  $t$ -test was run to explore whether or not the outcomes reported for the dynamism construct and its constituent items were statistically significant. The  $p$ -values associated with all the statements did not exceed the threshold of 0.05 except for the statement, “Due to environmental pressure members of the organization abandon some positive courses of action” which had a  $p$ -value of 0.591.

This suggests that excluding this item, the mean ratings reported for all the other items did not occur out of chance. Overall, the entire dynamism dimension reported significant *t*-test results,  $t(180) = 3.87, p < 0.05$ . As such, the finding that the operating environment for the SCs is highly dynamic did not happen by chance.

#### 4.4.3.2 Complexity of the Operating Environment

In uncovering how complex the operational setting of the SCs tends to be, the participants were provided with a list of forces and events that characterize a typical operating environment and asked to rate them. The ratings, done on a five-point Likert scale, served as an indicator of how complex the participants perceived the forces and events to be in connection with their respective Corporations. The ratings were analyzed with descriptive tools and are broken down as shown in Table 4.14.

**Table 4.14: Manifestation of Complexity**

Statement	Mean	Std. Deviation	CV (%)	<i>t</i> -statistic	df	Sig. (2-tailed)
Changes in policy guidelines governing SCs	4.127	0.876	21.226	17.313	180	0.000
Informed stakeholders and interested parties	3.939	0.896	22.747	14.111	180	0.000
Changes in technology	3.785	0.852	22.510	12.391	180	0.000
Legal framework touching on the mandate of your organization	3.718	1.102	29.640	8.768	180	0.00
Fluctuations in political regime in the country	3.359	1.303	38.791	0.644	180	0.000
Population growth	3.348	1.181	35.275	3.965	180	0.000
Changes in taxation regime	3.276	1.131	34.524	3.286	180	0.000
Fluctuations in exchange rates	3.061	1.270	41.490	0.644	180	0.521
Fluctuations in interest rates	3.022	1.220	40.371	0.244	180	0.808
Fear by top management to face uncertainty in good time	2.912	1.151	39.526	-1.033	180	0.303
<b>Complexity Index</b>	<b>3.455</b>	<b>0.745</b>	<b>21.563</b>	<b>8.210</b>	<b>180</b>	<b>0.000</b>

**Source:** Research Data (2021)

The mean score for complexity of various environmental factors was 3.46 ( $SD=0.75$ ), an indication that the operating environment of the SCs is reasonably complex. It is also evident that there were variations on how complex specific environmental factors are. The results show high rankings for changes in policy guidelines governing SCs ( $M=4.127$ ,  $SD=0.88$ ), informed stakeholders and interested parties ( $M=3.94$ ,  $SD=0.90$ ), changes in technology ( $M=3.785$ ,  $SD=0.85$ ) and organizational legal framework ( $M=3.718$ ,  $SD=1.10$ ). These findings suggest that changes in these factors are highly complex. In contrast, low complexity was associated with the fear by top management to face uncertainty ( $M=2.91$ ,  $SD=1.15$ ), fluctuations in interest rates ( $M=3.02$ ,  $SD=1.22$ ) and fluctuation in exchange rates ( $M=3.061$ ,  $SD=1.27$ ).

With respect to how unbalanced the participants' responses were, there was relatively high disparity in connection to the "Fluctuations in exchange rates" item, which had a CV of 41.49% and the statement "Fluctuations in interest rates" factor, which reported a CV of 40.37%. Consistency in the participants' responses was highest for the factor "Changes in policy guidelines governing SCs" which had a CV of 21.23%.

A one-sample  $t$ -test was also performed to establish whether the ratings associated with each item and the complexity construct in general happened by chance or as a result of explainable circumstances. The  $t$ -test statistic for each item or factor was associated with a  $p$ -value less than 0.05 except for three items: "Fluctuation in interest rates," "Fluctuations in exchange rates" and "Fear by top management to face uncertainty in good time." Therefore, the outcomes associated with these three items happened out of chance. Generally, the  $t$ -test results indicate the outcome that the operating environment of the SCs is reasonably complex was not as a result of chance but explainable factors.

#### 4.4.3.3 Political Goodwill and Support

The political goodwill and support aspect of the operating environment of the SCs was assessed using eight statements. The participants were requested to rate the extent to which different manifestations of political goodwill and support featured in the operation of their respective Corporations. These ratings were based on a five-point Likert response format. Table 4.15 presents the results obtained from the descriptive analysis of the ratings.

**Table 4.15: Manifestation of Political Goodwill and Support**

Statement	Mean	Std. Deviation	CV (%)	t-statistic	df	Sig. (2-tailed)
The chief executive officers must consult with the ministry before making important decisions on behalf of the corporation	3.522	1.249	35.463	5.624	180	0.000
The Corporation faces difficulties in the implementation of its strategies due to insufficient allocation of funds from the parent ministry	3.467	1.262	36.400	4.974	180	0.000
Sometimes important decisions are made at the ministry level and the board and top management only ensure that they are implemented whole	3.033	1.320	43.521	0.34	180	0.735
The chief executive, the board and the top management of this Corporation operate independently from any influence from any quarter whatsoever	2.944	1.157	39.300	-0.065	180	0.949
The ministry closely monitors all key processes of strategy implementation in the Corporation	2.917	1.324	45.389	-0.846	180	0.398
All strategic decisions taken by the board of directors of this Corporation must always take into consideration the opinion of the cabinet secretary in the parent ministry	2.822	1.395	49.433	-1.714	180	0.088

**Table 4.15: Manifestation of Political Goodwill and Support Continued...**

All decisions by the board must be approved by the ministry	2.408	1.254	52.076	-6.351	180	0.735
Most of the senior management officers in this corporation are either appointed or seconded by more senior government officers within the ministry	2.200	1.335	60.682	-8.062	180	0.000
<b>Political Goodwill and Support Index</b>	<b>2.920</b>	<b>0.757</b>	<b>25.925</b>	<b>-1.414</b>	<b>180</b>	<b>0.159</b>

**Source:** Research Data (2021)

The political goodwill and support construct index had a mean score of 2.92 ( $SD= 0.76$ ), which is close to the “moderate extent’ rating on a five-point Likert scale. This suggests that the operating environment of the SCs is characterized by fair political goodwill and support. The results, however, indicate noticeable differences in the specific aspects of political goodwill and support. The highest average score was linked to the statement, “The chief executive officers must consult with the ministry before making important decisions on behalf of the Corporation” which had an average rating of 3.52 ( $SD=1.25$ ). This shows that that political goodwill and support is highest in the decision-making processes of the SCs.

The second top rated statement was, “The Corporation faces difficulties in the implementation of its strategies due to insufficient allocation of funds from the parent ministry” which had a mean rating of 3.47 ( $SD=1.26$ ). This suggests that the level of political goodwill and support is reasonable when SCs are seeking funds to facilitate strategy implementation. The least ranked item was, “Most of the senior management officers in this Corporation are ether appointed or seconded by more senior government officers within the ministry” with a mean rating of 2.2 ( $SD=1.34$ ). This demonstrates that the manner in which appointments of senior officers in SCs is conducted shows a little political goodwill from the government.

Disparity in the participants' responses was highest for the statement, "Most of the senior management officers in this Corporation are either appointed or seconded by more senior government officers within the ministry" which reported a CV of 60.68%. At the second placement was the statement, "All decisions by the board must be approved by the ministry" with a CV of 52.08%.

Contrastingly, relatively high consensus in responses was observed in the statement, "The chief executive officers must consult with the ministry before making important decisions on behalf of the Corporation" which was associated with the least CV of 35.46%. The one-sample *t*-test results for the political goodwill and support construct index  $t(180) = -1.41, p > 0.05$  show that the mean score of the entire construct ( $M = 2.92$ ) was not significantly different from the midpoint of the rating scale.

This suggests that outcome that the operating environment of SCs is marked by fair political goodwill and support occurred by chance. However, three out of the eight items were associated with significant *t*-test results. It was, thus, inferred that the mean ratings associated with these three items did not occur by chance. A breakdown of the descriptive statistics for the entire operating environment construct is shown in Table 4.16.

**Table 4.16: Summary of Descriptive Statistics for Operating Environment**

<b>Index</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>CV (%)</b>	<b><i>t</i>-statistic</b>	<b>df</b>	<b>Sig. (2-tailed)</b>
Dynamism Index	3.870	0.484	12.507	24.205	180	0.000
Complexity Index	3.455	0.745	21.563	8.210	180	0.000
Political Goodwill and Support Index	2.920	0.757	25.925	-1.414	180	0.159
<b>Operating Environment Index (Overall)</b>	<b>3.415</b>	<b>0.457</b>	<b>13.38</b>	<b>12.436</b>	<b>180</b>	<b>0.000</b>

**Source:** Research Data (2021).



The mean score for the operating environment construct was 3.42 ( $SD=0.46$ ). This implies that operating environment for the SCs is characterized by a fair amount of complex and dynamic changes. Of the three, aspects of operating environment, dynamism ranked the highest ( $M=3.87$ ,  $SD=0.48$ ) while political will and support ranked the lowest ( $M=2.92$ ,  $SD=0.76$ ).

Consensus in the participants' responses was highest in the dynamism facet ( $CV=12.51\%$ ) and lowest in the political goodwill and support construct ( $CV=25.93\%$ ). Significant  $t$ -test results were evident for only two constructs: dynamism and complexity. This signifies that the manifestation of the two constructs in the SCs did not occur out of chance. The one-sample  $t$ -test results for the operating environment index,  $t(180)=12.44$ ,  $p < 0.05$  show that the average score of the entire variable ( $M=3.42$ ) was significantly different from the midpoint of the five-point Likert scale. This confirms that the outcome that the operating environment for the SCs is marked by a reasonable amount of changes was not arbitrary.

#### **4.4.4 Organizational Performance**

Performance was operationalized into three distinct constructs; financial performance, process efficiency and relevance. The manifestation of these constructs was assessed with a five-point Likert scale. The specific attributes of these constructs as reflected in the SCs are discussed in detail in the subsequent subsections.

##### **4.4.4.1 Financial Performance**

The measurement of financial performance was done using an array of nine items. The degree to which each of the items was applicable to the participants' Corporations was gauged on a five-point Likert scale. Table 4.17 displays the results generated from the descriptive analysis of the participants' responses.

**Table 4.17: Manifestation of Financial Performance**

Statement “	Mean	Std. Deviation	CV (%)	t-statistic	Df	Sig. (2-tailed)
The organization carries out monitoring and evaluation of finance, capital assets and depreciation on a regular basis	3.628	1.091	30.072	7.745	180	0.000
The organization’s assets outweigh its liabilities	3.218	1.253	38.937	2.340	180	0.020
The organization has sustainable sources of funding	2.811	0.999	35.539	-2.544	180	0.012
The organization has sustainable financial resources for continuity of programmes even with the exit of key donors	2.539	1.222	48.169	-5.077	180	0.000
The organization generates new sources of funding	2.525	1.045	41.386	-6.112	180	0.000
The organization has wide sources of funds including players from development partners and the private sector	2.455	1.136	46.273	-6.456	180	0.000
The amount of resources mobilized from development partners and the private sector have increased over the last years	2.303	1.182	51.324	-7.927	180	0.000
The organization’s revenue exceeds expenses	2.250	1.303	57.911	-7.742	180	0.000
The organization has surplus financial resources for economically depressed periods	2.233	1.179	52.799	-8.749	180	0.000
<b>Financial Performance Index</b>	<b>2.663</b>	<b>0.829</b>	<b>31.130</b>	<b>-5.480</b>	<b>180</b>	<b>0.000”</b>

**Source:** Research Data (2021).

The average rating for financial performance was 2.66. On grounds of the five-point Likert scale, this score is close to the “moderate extent’ rating. This is an indication that the financial performance of SCs is reasonable. It is also apparent that different aspects linked to financial performance of the Corporations were ranked differently. The average score was highest for the statement, “The organization carries out monitoring and evaluation of finance, capital assets and depreciation on a regular basis” which had a rating of 3.63 ( $SD=1.09$ ). This suggests that financial performance of the SCs is reflected to a large extent by the capacity to monitor and regulate finances.

The second top rated statement was, “The organization’s assets outweigh its liabilities” with a mean rating of 3.22 ( $SD=1.25$ ). This illustrates that the SCs are able to reasonably meet their financial obligations. The least ranked statement was, “The organization has surplus financial resources for economically depressed periods” with a rating of 2.23 ( $SD=1.18$ ). This is an indication that the financial resources possessed by SCs are not sustainable enough to cushion the Corporations during hard economic times. The results indicate that the statement, “The organization carries out monitoring and evaluation of finance, capital assets and depreciation on a regular basis” had the least CV as evidenced by a score of 30.07%.

This provides indication that there was relatively high consensus in the participants’ opinions that their organizations conduct regular monitoring and evaluation of finances to a large extent. Conversely, the statement, “The organization’s revenue exceeds expenses” was associated with the highest CV of 57.91%. As such, it can be inferred there was relatively little unanimity among the respondents on whether their organizations’ revenue exceeded expenses. A one-sample *t*-test was also performed for each item of the financial performance index. A close inspection of the *p*-value column reveals that all the statements were linked to *p*-values that met the cut-off of 0.05. Therefore, it was inferred that all the outcomes for each item and the entire construct of financial performance and did not happen by chance.

#### **4.4.4.2 Process Efficiency**

The efficiency of processes and operations in the SCs was evaluated using a scale comprising nine items. The participants were asked to respond to these items using a five-point Likert format. Subsequently, the responses were analyzed using descriptive statistics and the results are as summarized in Table 4.18.

**Table 4.18: Manifestation of Process Efficiency**

Statement	Mean	Std. Deviation	CV (%)	t-statistic	df	Sig. (2-tailed)
The organization makes optimal use of its financial resources	4.318	0.687	15.910	25.835	180	0.000
The organization builds on past performance to enhance improvement	4.122	0.858	20.815	20.326	180	0.020
The organization makes maximum use of its facilities such as buildings and equipment	4.117	0.743	18.047	17.507	180	0.012
The organization has efficient operations and administrative framework to ensure efficient service delivery	4.056	0.747	18.417	19.106	180	0.000
The organization utilizes staff members optimally	4.050	0.778	19.210	18.901	180	0.000
The organization delivers its services and products promptly without any delay	3.994	0.769	19.254	15.446	180	0.000
The organization controls overhead costs	3.883	0.876	22.560	12.369	180	0.000
The organization's programmes are evaluated on the basis of the cost	3.722	0.901	24.207	10.785	180	0.000
The organization is able to achieve its objectives on schedule	3.700	0.774	20.919	12.169	180	0.000
<b>Process Efficiency Index</b>	<b>3.977</b>	<b>0.534</b>	<b>13.427</b>	<b>24.608</b>	<b>180</b>	<b>0.000</b>

**Source:** Research Data (2021)

The process efficiency index had a mean score of 3.98 ( $SD=0.53$ ). This implies that on average the SCs are process efficient in their operations to a large extent. As pertains to the specific operations and processes, the SCs are highly efficient with respect to optimal use of financial resources ( $M=4.32$ ,  $SD=0.69$ ), building on past performance to enhance improvement ( $M=4.12$ ,  $SD=0.86$ ) and maximum use of buildings and equipment ( $M=4.12$ ,  $SD=0.74$ ). In contrast, the SCs were found to be relatively less efficient in achieving objectives on schedule ( $M=3.70$ ,  $SD=0.77$ ) and cost evaluation of programmes ( $M=3.77$ ,  $SD=0.90$ ).

The results also indicate that the CV of 24.21% associated with the statement, “The organization’s programmes are evaluated on the basis of the cost” was the highest. On account of this finding, it was inferred that there was high degree of variability in the participants’ responses linked to this statement.

On the other hand, the statement, “The organization makes optimal use of its financial resources” reported the lowest CV of 15.91%. This implies that there was high unanimity in the participants’ responses with respect to this statement. The one-sample *t*-test results for the process efficiency index  $t(180) = 24.61, p < 0.05$  show that the mean score of the entire construct ( $M=3.98$ ) was significantly different from the midpoint of the five-point Likert scale. This suggests that the finding that the SCs are efficient in their processes and operations to a large extent did not occur by chance. Significant *t*-test results were also reported for all the specific processes considered in the study. As such, these results indicate the outcome for each of these processes was not a random occurrence.

#### **4.4.4.3 Organizational Relevance**

Organizational relevance of the SCs was operationalized into ten items. The participants were required to point out the extent to which the items were representative of their organizational setting on a five-point Likert scale. The results obtained from descriptive analysis of the responses are shown in Table 4.19.

**Table 4.19: Manifestation of Organizational Relevance**

<b>Statement</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>CV (%)</b>	<b>t-statistic</b>	<b>df</b>	<b>Sig. (2-tailed)</b>
The organization constantly review its programmes as dictated by the prevailing environment	4.096	0.689	16.821	21.412	180	0.000
The organization constantly scans the environment as a basis for strategy review	4.017	0.840	20.911	16.291	180	0.000
The organization's partners have changed their attitude towards the organization from negative to positive	3.971	0.785	19.768	16.653	180	0.000
The organization adequately balances stakeholders' demands	3.960	0.846	21.363	15.277	180	0.000
The organization constantly reviews its programmes based on its capacity in terms of infrastructure and human resource	3.949	0.858	21.727	14.881	180	0.000
The organization regularly adjusts the services that it offers in response to customer needs	3.870	0.960	24.806	12.189	180	0.000
Services offered by organization are constantly reviewed to reflect changing client type	3.842	0.971	25.273	11.668	180	0.000
Beneficiary needs assessments are conducted regularly	3.577	1.019	28.488	7.624	180	0.000
The old funders are continually willing to support the initiatives of the organization	3.437	1.180	34.332	4.978	180	0.000
There has been increased number of new funders to the organization over the last five years	3.045	1.307	42.923	0.465	180	0.642
<b>Organizational Relevance Index*</b>	<b>3.777</b>	<b>0.625</b>	<b>16.548</b>	<b>16.715</b>	<b>180</b>	<b>0.000</b>

**Source:** Research Data (2021) .

The mean score for the entire relevance construct was 3.78 ( $SD=0.63$ ), which is approximate to the 'large extent' rating on a five-point Likert scale. This suggests that the activities of the SCs are relevant to a large extent. The statement, "The organization constantly reviews its programmes as dictated by the prevailing environment" had the highest mean rating of 4.10 ( $SD=0.69$ ).

This indicates that the SCs are highly relevant in reference to constant review of programmes in light of changes in the operating environment. The second top rated statement was, “The organization constantly scans the environment as a basis for strategy review” which had an average rating of 4.02 ( $SD=0.84$ ). This has the implication that the scanning for opportunities and capabilities in the operating environment contributes largely to the organizational relevance of the SCs. Additionally, the positive attitudes of partners were identified as salient contributors to the organizational relevance of the Corporations.

This is demonstrated by the high ranking associated with the statement, “The organization’s partners have changed their attitude towards the organization from negative to positive” which had an average rating of 3.97 ( $SD=0.79$ ). The lowest rated statement was, “There has been increased number of new funders to the organization over the last five years” which had a mean score of 3.05 ( $SD=1.31$ ). This suggests that new sources of funding make relatively low contribution to the organizational relevance of the SCs.

With respect to the variance of the participants’ responses, the results indicate that the statement, “There has been increased number of new funders to the organization over the last five years” had the highest CV of 42.92%. This finding suggests that there was high inconsistency in the participants’ responses as to the degree to which the statement was reflected in the SCs. In contrast, the statement, “The organization constantly reviews its programmes as dictated by the prevailing environment” had the least CV of 16.81%. This is an indication that there was high consistency in the participants’ responses to this statement. A one-sample *t*-test was also carried out to confirm whether the ratings associated with each item and the entire relevance construct occurred randomly or as a result of explainable factors.

The *t*-test statistic for each item was associated with a *p*-value less than 0.05 except for one item: “There has been increased number of new funders to the organization over the last five years.” Therefore, with the exception of this item, the outcomes associated with the other items did not happen by chance.

Generally, the *t*-test results for the relevance index  $t(180) = 16.72, p < 0.05$  indicate the outcome that the activities of the SCs are relevant to a large extent did not happen randomly. In light of these findings, a summary of the descriptive statistics for the performance variable could be generated. Table 4.20 provides this brief summary.

**Table 4.20: Summary of Organizational Performance Descriptive Results**

Index	Mean	Std. Deviation	CV (%)	<i>t</i> -statistic	df	Sig. (2-tailed)
Financial Performance Index	2.663	0.829	31.130	-5.480	180	0.000
Process Efficiency Index	3.977	0.534	13.427	24.608	180	0.000
Organizational Relevance Index	3.777	0.625	16.548	16.715	180	0.000
<b>Organizational Performance Index (Overall)</b>	<b>3.472</b>	<b>0.526</b>	<b>15.150</b>	<b>12.074</b>	<b>180</b>	<b>0.000</b>

Source: Research Data (2021)

The mean score for the organizational performance construct was 3.47 ( $SD=0.53$ ). This suggests that the performance of the SCs is moderately high. The results also show that consensus in the participants’ responses was highest in the process efficiency construct ( $CV=13.43\%$ ) and lowest in the financial performance construct ( $CV=31.13\%$ ). Significant *t*-test results were reported for each construct. This signifies that the manifestation of the three constructs in the SCs did not occur out of chance. In the same light, the one-sample *t*-test results for the performance index,  $t(180) = 12.07, p < 0.05$  shows that the average score of the entire variable ( $M=3.47$ ) was significantly different from the midpoint of the rating scale. This indicates that the outcome that performance of the SCs is moderately high was not a random event.



## **4.5 Diagnostic Tests**

The essence of this section is presentation of diagnostic analysis results whose focus was on testing the data for compliance with the assumptions underlying the regression technique. Diagnostic tests are an essential part of any multivariate analysis technique as potential distortions and biases in the final results become more potent when the assumptions are severely violated. In this study, the following diagnostic procedures were carried out; test of normality, multicollinearity test, homoscedasticity test and linearity test. The results from these tests are detailed in the subsequent subsections.

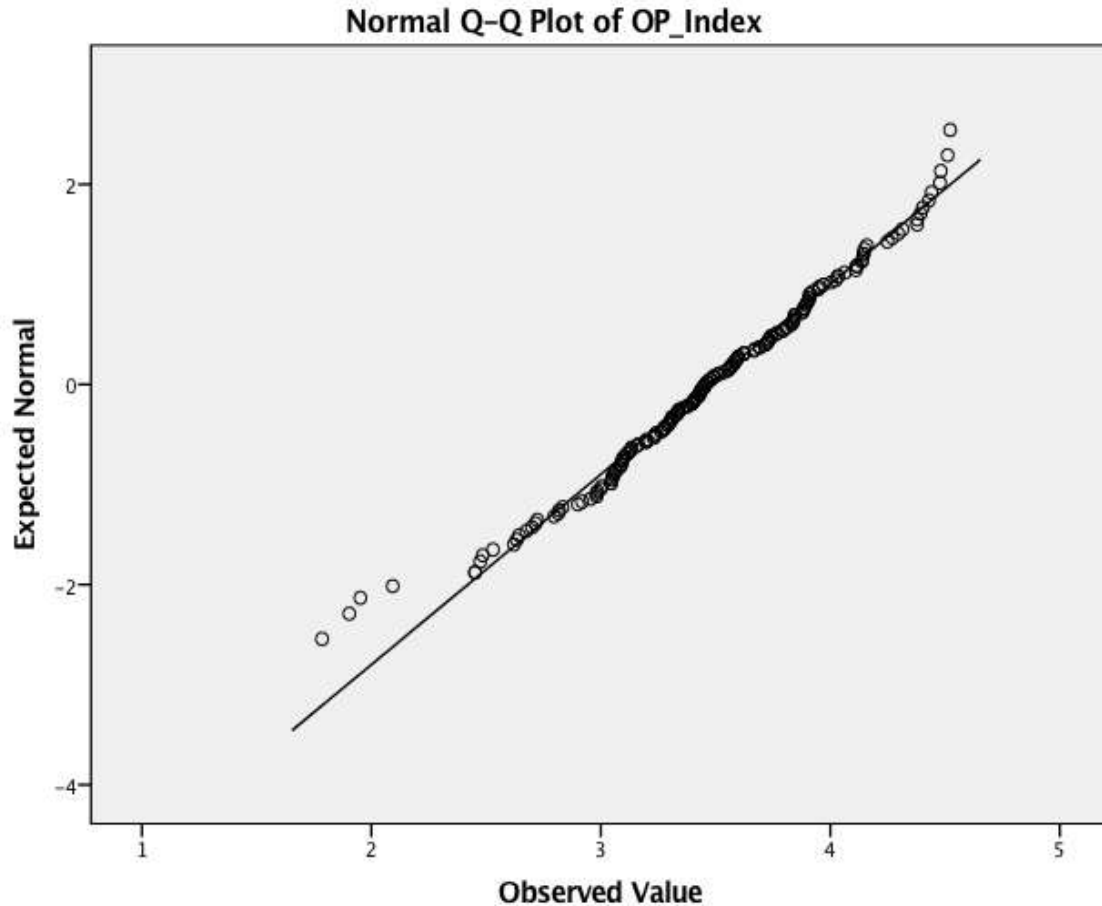
### **4.5.1 Test of Normality**

Normality denotes the shape of the data distribution of a metric variable and its consonance to a normal distribution (Hair et al., 2020). A graphical approach was used to discern the distributional attributes of the study variables.

Specifically, this approach entailed construction of a normal probability plot, which essentially compares the cumulative distribution of observed data values of variable with the cumulative distribution of normal distribution (Ho, 2014).

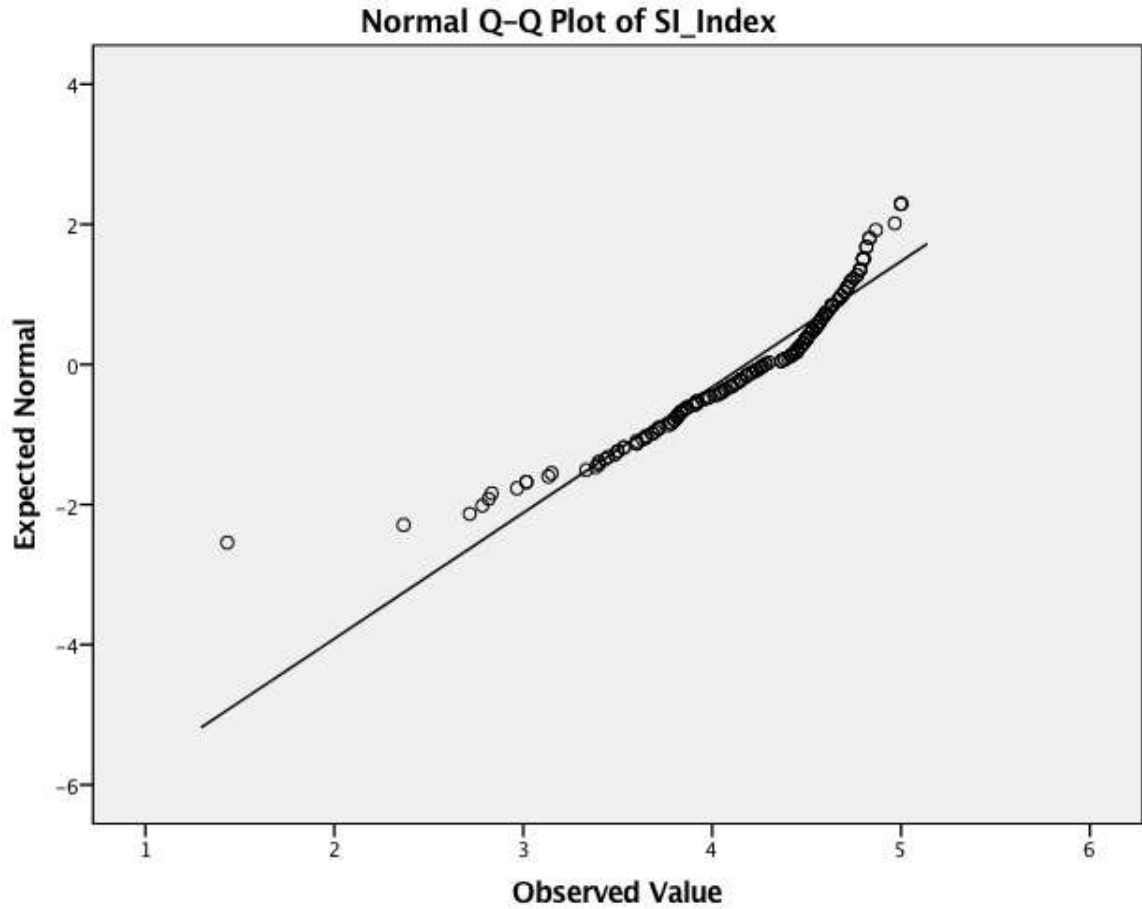
In the plot, a straight diagonal line typically represents the normal distribution on which the plotted values align. If the plotted values closely follow the diagonal, normality is assumed.

Figure 4.1 shows the normal probability for the performance variable.



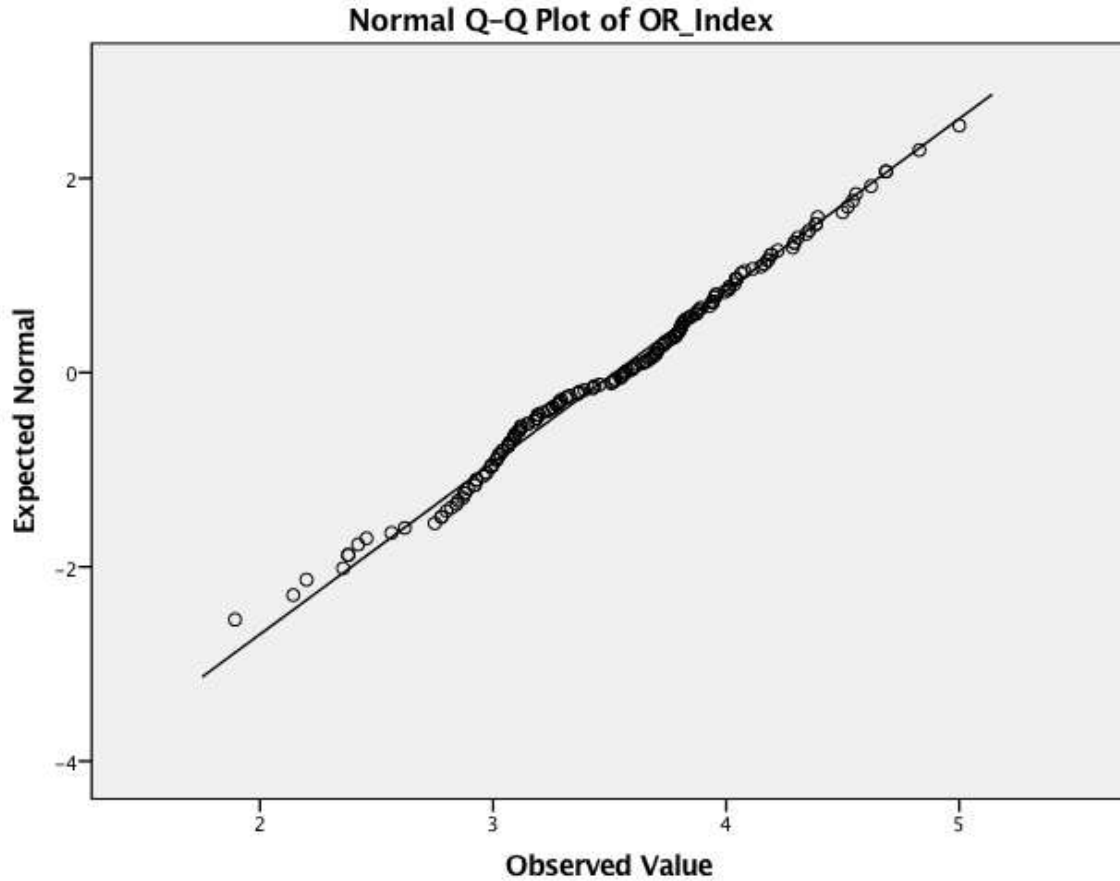
**Figure 4.1: Normal Probability Plot for the Organizational Performance Variable**  
**Source:** Research Data (2021)

Although the plot shows slight deviations from the linear trend, they are not too serious to raise concern. Generally, systematic departures from the overall linear trend are absent. Therefore, these results confirm that the performance variable satisfied the normality assumption. Figure 4.2 illustrates the distributive characteristics of the strategy implementation variable.



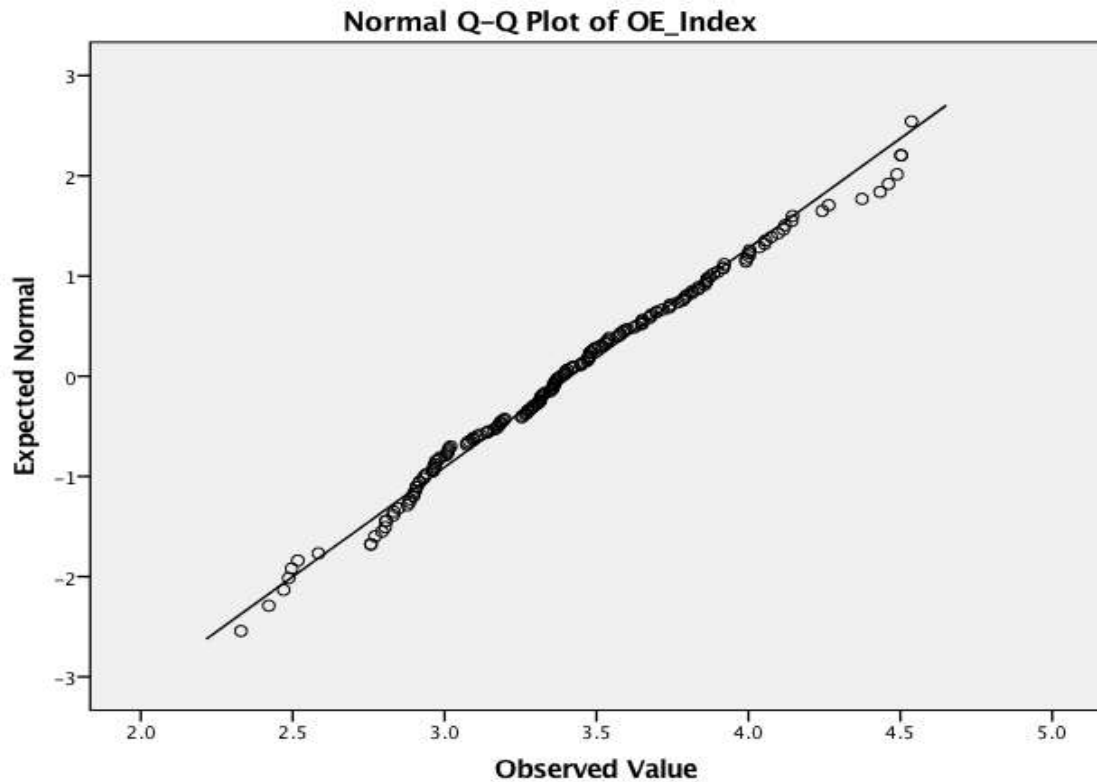
**Figure 4.2: Normal Probability Plot for Strategy Implementation**  
**Source:** Research Data (2021)

Figure 4.2 shows considerable deviations from the linear trend in the lower tail. However, for the most part, the plotted values agglomerate closely along the 45-degree line making the departures to be of little concern. It was thus concluded that the data for the strategy implementation variable met the normality requirement. The normal probability plot for the organizational resources variable is shown in Figure 4.3.



**Figure 4.3: Normal Probability Plot for Organizational Resources**  
**Source:** Research Data (2021)

A visual inspection of the plot shows minor perturbations, particularly towards the lower tail of the distribution. These departures are, however, extremely minor to elicit concern. In addition, a vast majority of the observed values resemble a straight line. As such, this plot confirms that the organizational resources variable did not violate the normality assumption. The normal probability distribution of the operating environment variable is displayed in Figure 4.4.



**Figure 4.4: Normal Probability Plot for Operating Environment**

**Source:** Research Data (2021).

Inspection of the plot reveals no extreme departures from the linear trend. This shows that the data for the operating environment variable followed a normal distribution. In light of this finding, it was concluded that all the study variables met the normality assumption.

#### **4.5.2 Multicollinearity Test**

Multicollinearity occurs when the degree of correlation between two or more predictor variables is extremely high such that there is an overlap or confounding effect in the predictive power of the variables (Schroeder, Sjoquist, & Stephan, 2016). To assess the level of multicollinearity in each variable, the tolerance value and its inverse, the variance inflation factor (VIF) were computed. Table 4.21 presents these measures.

**Table 4.21: Multicollinearity Test Results**

Variable	Collinearity Statistics	
	Tolerance	VIF
Strategy Implementation	0.597	1.674
Organizational Resources	0.594	1.683
Operating Environment	0.984	1.016

**Source:** Research Data (2021)

Table 4.21 shows that the tolerance values ranged from 0.594 to 0.984 and the VIF values from 1.016 to 1.674. Ho (2014) notes that predictor variables whose tolerance values fall below 0.10 and VIF values greater than 10, have high degree of multicollinearity and warrant further investigation. Following this guideline, it is evident from the results that the study variables had an acceptable level of multicollinearity. Therefore, it was concluded that the predictor variables did not violate the assumption of multicollinearity.

#### **4.5.3 Homoscedasticity Test**

Homoscedasticity is the assumption that the variability of the dependent variable is exhibited equally across a set of predictor variables (Hair et al., 2020). The test for homoscedasticity was accomplished through the Breusch-Pagan test for heteroscedasticity and graphical analysis, specifically an analysis of the residuals. The graphical analysis involved constructing a residual plot of standardized residuals versus predicted values.

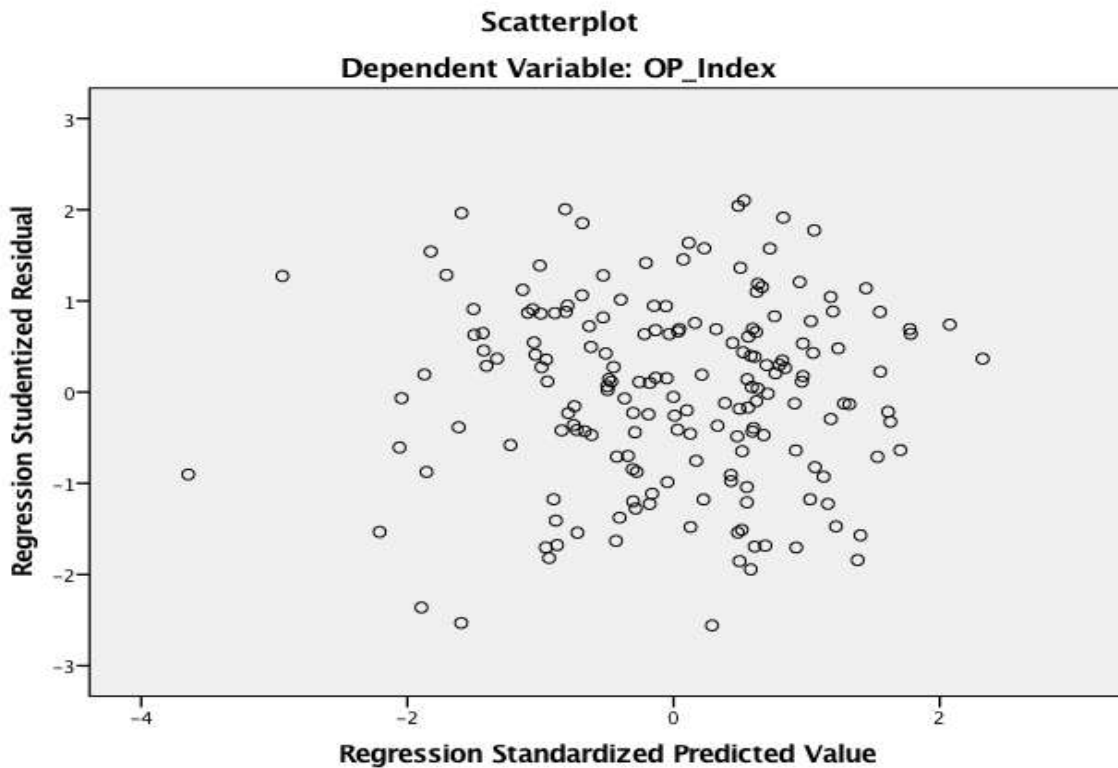
Table 4.22 shows the results of the Breusch-Pagan test.

**Table 4.22: Breusch-Pagan Test for Heteroscedasticity**

Chi-square	Df	Sig.
1.248	1	0.264

Source: Research Data (2021)

The null Breusch-Pagan test evaluates the null hypothesis that there is no homoscedasticity. The test produced a non-significant chi-square value  $\chi^2 = 1.25$  ( $df = 1, p > 0.05$ ), leading to rejection of the null hypothesis that the data was heteroscedastic. Therefore, the Breusch-Pagan test demonstrated that the homoscedasticity assumption had been met. Homoscedasticity was also assessed graphically as illustrated by the plot shown in Figure 4.5.



**Figure 4.5: Residual Plot of Standardized Residuals versus Predicted Values**

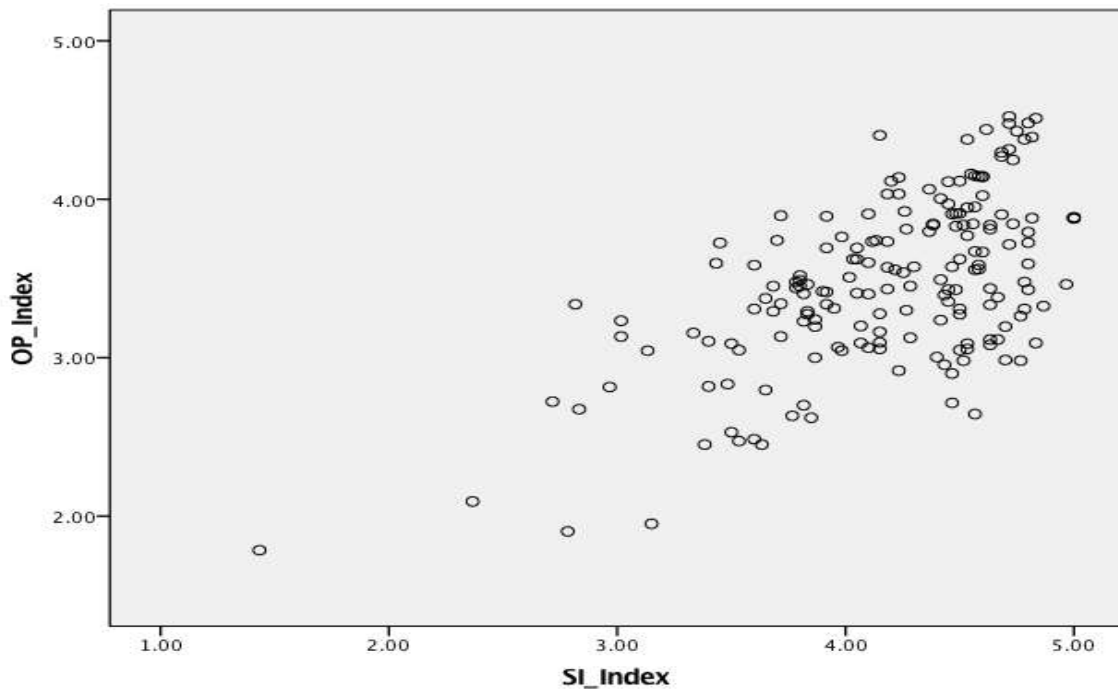
Source: Research Data (2021)

The cloud of points appears densest around the middle and tapers off towards the edges.

Generally, the arrangement of the points is random and no definite pattern of increasing or decreasing residuals is evident. This finding therefore further confirms that the homoscedasticity assumption was met.

#### 4.5.4 Linearity Test

Linearity is the implicit assumption that the association between a predictor variable and an outcome variable can be represented on a straight line (Schroeder et al., 2016). This assumption was examined graphically by assessing scatterplots of each predictor variable and the outcome variable. Figure 4.6 shows a scatterplot of strategy implementation versus performance.

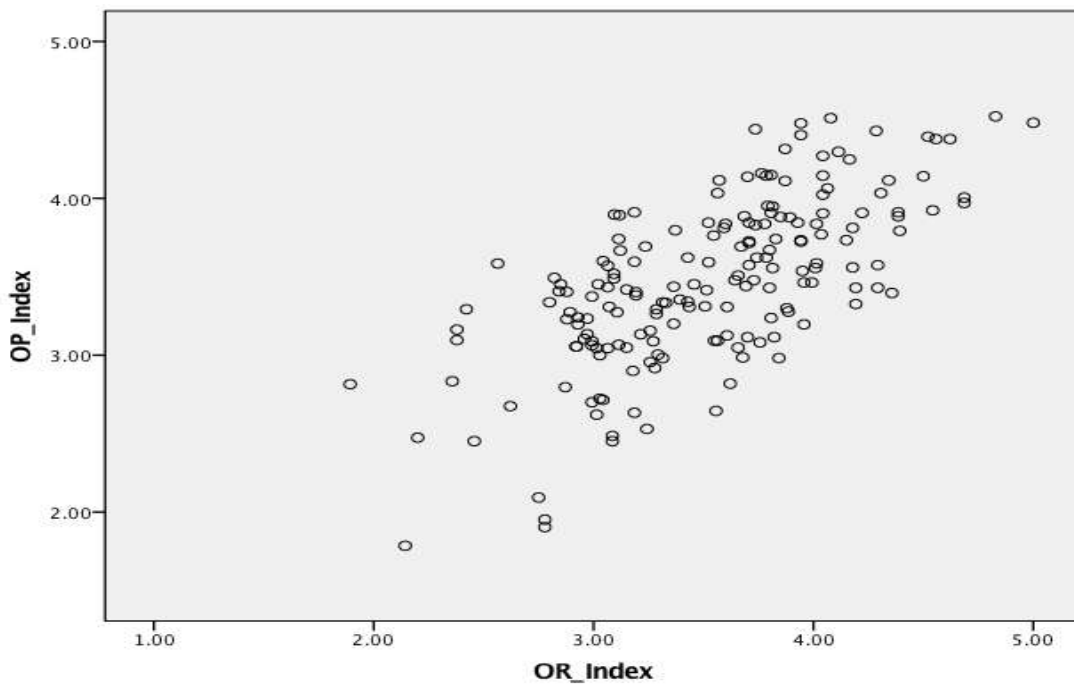


**Figure 4.6: Scatterplot of Organizational Performance versus Strategy Implementation**  
Source: Research Data (2021)



As can be seen in the plot, the strategy implementation index increases with increase in the performance index. This suggests presence of a positive linear association between strategy implementation and performance. The shape of the points reveals no randomness or curvilinear semblance. Therefore, the assumption of linearity was met for the relationship between strategy implementation and performance.

Figure 4.7 displays the scatterplot of performance against organizational resources.

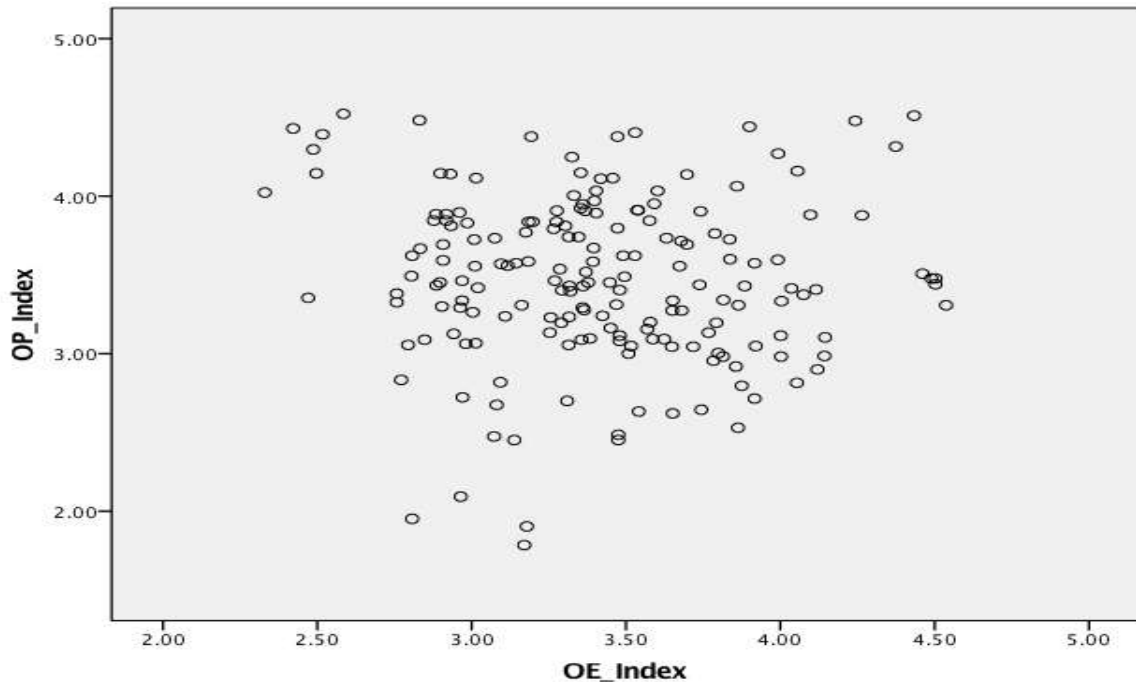


**Figure 4.7: Scatterplot of Organizational Performance versus Organizational Resources**

**Source:** Research Data (2021)

The plot shows that higher scores of the organizational resources index correspond to higher scores for performance. This indicates that the observations closely align in a well-defined linear pattern. As such, the scatterplot provides evidence that the linearity assumption was satisfied for the link between organizational resources and performance.

Figure 4.8 shows a scatterplot of performance versus operating environment.



**Figure 4.8: Scatterplot of Performance against Operating Environment**  
**Source:** Research Data (2021)

The plot shows a set of points that appear to slant slightly to the left. Lower values of the operating environment index are associated with higher values on the performance index. This points to existence of an inverse or negative linear relationship between operating environment and performance. As such, the plot confirms that the assumption of linearity between operating environment and performance was not violated.

The linear association between strategy implementation, organizational resources, operating environment was further explored through a Pearson correlation analysis. This analysis was particularly useful in showing the strength of the linear associations between the variables. The results fo the correlation analysis are shown in Table 4.23.

**Table 4.23: Pearson Correlation Matrix**

	Organizational Performance	Strategy Implementation	Organizational Resources	Operating Environment
Organizational Performance	1			
Strategy Implementation	0.602*	1		
Organizational Resources	0.684*	0.63*	1	
Operating Environment	-0.063	0.028	-0.078	1

- Correlation is significant at the 0.05 level.

**Source:** Research (2021).

The results show a strong and positive correlation between performance and strategy implementation ( $r = 0.6, p < 0.05$ ) as well as with organizational resources ( $r = 0.68, p < 0.05$ ). However, the association between performance and the operating environment was weak and negative ( $r = -0.063, p > 0.05$ ). Generally, the results suggest that some form of linear association existed between strategy implementation, organizational resources and performance.

#### 4.6 Hypothesis Testing

The purpose of this research was to establish the influence of strategy implementation, organizational resources and operating environment on the performance of Kenya owned SCs. Four specific objectives were derived from this broad objective, which were in turn used to generate four hypotheses stated in null form. The first hypothesis postulated that strategy implementation has no significant influence on the performance of Kenya owned SCs. The second hypothesis posited that organizational resources does not significantly moderate the link between strategy implementation and performance of Kenya owned SCs.

Similarly, the third hypothesis predicted that the operating environment does not significantly moderate the impact of the strategy implementation on Kenya owned SCs. The last hypothesis predicted that the joint influence of strategy implementation, organizational resources and operating environment on the performance of Kenya owned SCs is not significantly greater than the influence of the sum total of the separate variables. The first hypothesis was tested using simple linear regression whereas the second and third hypotheses were evaluated using hierarchical regression analysis. The fourth hypothesis was evaluated using both simple and multiple linear regression. The focus of this section is on presentation of results obtained from testing the hypotheses.

#### **4.6.1 Strategy Implementation and Organizational Performance**

The first objective sought to assess the effect of strategy implementation on the performance of Kenya owned SCs. To this end, a null hypothesis was formulated that stated as follows:

H<sub>01</sub>: Strategy implementation has no significant influence on the performance of Kenya owned SCs.

Strategy implementation was operationalized by two constructs, namely strategy operationalization and institutionalization. On the other hand, performance was measured using three constructs; financial performance, process efficiency and organizational relevance. The constructs for each of these variables were averaged into one single composite index. These composite indices were utilized in the simple linear regression analysis used to test the hypothesis. The decision to reject or not reject the hypothesis was based on the *p*-value associated with the fitted regression model.

A significance level of 0.05 was specified in this study. Support for the hypothesis would be indicated by a *p*-value greater than 0.05 while its rejection would be prompted by a *p*-value less than 0.05. Prior to evaluating the hypothesis, the effects of strategy implementation dimensions on performance were explored by running a multiple linear regression analysis. Table 4.24 shows the output obtained from the regression.

**Table 4.24: Strategy Operationalization, Institutionalization and Organizational Performance**

Model Summary					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	
1	0.656 <sup>a</sup>	0.430	0.424	0.399	
a. Predictors: (Constant), SIO_Index, SII_Index					
ANOVA <sup>a</sup>					
Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	21.401	2	10.700	67.124	0.000 <sup>b</sup>
Residual	28.375	178	0.159		
Total	49.776	180			
a. Dependent Variable: OP_Index Predictors: (Constant) SIO_Index, SII_Index					
Coefficients <sup>a</sup>					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.497	0.242		6.195	0.000
SIO_Index	-0.031	0.074	-0.033	-0.427	0.670
SII_Index	0.543	0.062	0.678	8.729	0.000
Dependent Variable: OP_Index					

**Source:** Research Data (2021)

Table 4.24 shows that strategy operationalization and institutionalization accounted for a shared variance of 43% ( $R^2=0.43$ ) in the performance of Kenya owned SCs. The adjusted  $R^2$  is 0.42 implying that taking into account the number of independent variables 42% of variations in the data are explained by the model. The ANOVA results,  $F(2, 178) = 67.12$ , provide indication that the model was statistically significant in predicting the performance of SCs.

This model was expressed as follows:

$$\text{Organizational Performance} = 1.497 - 0.031 * \text{Strategy Operationalization} + 0.543 * \text{Strategy Institutionalization}$$

### **Strategy Institutionalization**

An inspection of the ‘coefficients’ results block reveals differential impacts of the two strategy implementation dimensions. Strategy institutionalization was the most useful predictor given its significant results associated with its beta coefficient,  $\beta = 0.54$ ,  $t(180) = 8.73$ ,  $p < 0.05$ . Contrastingly, the individual effect of strategy operationalization, was not statistically significant,  $\beta = -0.03$ ,  $t(180) = -0.43$ ,  $p > 0.05$ . Generally, the regression equation reveals that controlling for strategy institutionalization, a unit increase in operationalization would lead to decline in performance of the SCs by a factor of 3.1%. Additionally, holding strategy operationalization constant, a unit increase in strategy institutionalization would improve performance of the Corporations by a factor of 54.3%.

Having assessed the extent and effects of the two dimensions underlying strategy implementation on performance, the next step was to test the hypothesis that strategy implementation significantly influences the performance of Kenya owned SCs. This entailed running a simple linear regression analysis with the strategy implementation composite index as the predictor variable and organizational performance composite index as the outcome variable. The results of this analysis are presented in Table 4.25.

**Table 4.25: Strategy Implementation and Organizational Performance**

Model Summary					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	
1	0.602	0.362	0.358	0.421	
a. Predictors: (Constant), SI_Index					
ANOVA <sup>a</sup>					
Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	18.022	1	18.022	101.59	0.000 <sup>b</sup>
Residual	31.754	179	0.177		
Total	49.776	180			
a. Dependent Variable: OP_Index Predictors: (Constant) SI_Index					
Coefficients <sup>a</sup>					
Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.096	0.238		4.609	0.000
SI_Index	0.569	0.056	0.602	10.079	0.000
Dependent Variable: OP_Index					

**Source:** Research Data (2021)

The resulting coefficient of determination ( $R^2$ ) was found to be 0.362 indicating that strategy implementation explained 36.2% of variability in the performance of Kenya owned SCs. This estimate suggests that the model was good, but not perfect, in explaining the observed variance in performance of the Corporations. The adjusted  $R^2$  was 0.36 implying that 36% of variance in the data could be accounted for by the model even after controlling for the number of predictors. The ANOVA results,  $F(1, 179) = 101.59, p < 0.05$ , further reveal that the model had achieved acceptable level of significance. For this reason, the model was useful, statistically, in predicting performance and thus could take the form:

### **Organizational Performance = 1.096 + 0.569 \* Strategy Implementation**

This estimated regression model implies that, holding all other factors constant, a unit change in strategy implementation would improve performance of the Kenya owned SCs by a factor of 0.569. The regression coefficient for strategy implementation was also found to be statistically significant as evidenced by,  $\beta = 0.569$ ,  $t(180) = 10.08$ ,  $p < 0.05$ . These results provided strong evidence for rejecting the null hypothesis and leading to the conclusion that strategy implementation has a significant influence on the performance of Kenya owned SCs.

#### **4.6.2 Strategy Implementation, Organizational Resources and Organizational Performance**

The second objective of this inquiry was to determine the influence of organizational resources on the relationship between strategy implementation and performance of Kenya owned SCs. In line with this objective, a null hypothesis was formulated that stated as follows:

H<sub>02</sub>: Organizational resources does not significantly moderate the relationship between strategy implementation and the performance of Kenya owned SCs.

The hypothesis was tested using the hierarchical regression approach. This procedure is executed in three steps. In the first step, the outcome variable is regressed on the predictor variable. In this case, the strategy implementation composite index and performance composite score represented the predictor and outcome variables, respectively. The second step entails regressing the outcome variable on both the predictor and moderating variable. For this step, the organizational resources composite index represented the moderator.



The index was obtained by averaging organizational resources sub-construct indices, that is, the tangible and intangible resources indices. As for the final step, the outcome variable is regressed on the predictor variable, moderator, and the interaction term formed by taking the product of the predictor and moderator. Only if the regression coefficient associated with the interaction term is significant ( $p < 0.05$ ) would there be indication of moderation. A statistically significant coefficient for the interaction between organizational resources and strategy implementation would be grounds for rejecting the null hypothesis.

Before testing the hypothesis, the moderating effects of the two dimensions underlying organizational resources, that is, tangible and intangible resources, were probed. Table 4.26 shows the hierarchical regression results generated from testing the moderating effect of tangible resources

**Table 4.26: Strategy Implementation, Tangible Resources and Organizational Performance**

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	0.602	0.362	0.358	0.4211		
2	0.677	0.452	0.452	0.389		
3	0.679	0.460	0.451	0.390		
a. Predictors: (Constant), SI_Index						
b. Predictors: SI_Index, ORT_Index						
c. Predictors: SI_Index, ORT_Index, Strategy_Tangible						
ANOVA <sup>a</sup>						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	18.022	1	18.022	101.59	0.000
	Residual	31.754	179	0.177		
	Total	49.776	180			
2	Regression	22.803	2	11.402	75.243	0.000
	Residual	26.973	178	0.152		
	Total	49.776	180			

**Table 4.26 continued...**

3	Regression	22.918	3	7.639	50.345	0.000
	Residual	26.858	177	0.152		
	Total	49.776	180			
a. Dependent Variable: OP_Index						
<b>Coefficients<sup>a</sup></b>						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.096	0.238		4.609	0.000
	SI_Index	0.569	0.056	0.602	10.079	0.000
2	(Constant)	0.910	0.222		4.096	0.000
	SI_Index	0.428	0.058	0.453	7.395	0.000
	ORT_Index	0.245	0.044	0.344	5.617	0.000
3	(Constant)	1.702	0.937		1.816	0.071
	SI_Index	0.238	0.225	0.252	1.059	0.291
	ORT_Index	-0.038	0.328	-0.053	-0.115	0.909
	Strategy_Tangible	0.067	0.077	0.519	0.870	0.386

**Source:** Research Data (2021)

The results show that the first model accounted for 36.2% ( $R^2=0.362$ ) of the overall variance in performance of Kenya owned SCs. The adjusted  $R^2 = 0.358$  indicates that 35.8% of variation in performance can be explained by the model when the number of variables are controlled for. The second model accounted for 45.2% of the variation in the data even when the number of independent of variables was adjusted for ( $R^2 = 0.452$ ; adjusted  $R^2= 0.42$ ). The third model explained 46% ( $R^2 = 0.46$ ) of the variance and 45.1% (adjusted  $R^2= 0.451$ ) if the number of independent variables were to be adjusted for. The results also demonstrate that all the three models were significant ( $p < 0.05$ ). Given that the interactive term was not statistically significant, it was inferred that tangible resources do not significantly moderate the effect of strategy implementation on the performance of Kenya owned SCs.

The second component of organizational resources, intangible resources, was tested for moderating effect on the relationship between strategy implementation and performance of Kenya owned SCs. The construct index for intangible resources served as the moderator whereas strategy implementation and performance were represented by their respective composite indices. Table 4.27 displays the output from the hierarchical regression analysis.

**Table 4.27: Strategy Implementation, Intangible Resources and Organizational Performance**

<b>Model Summary</b>					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	
1	0.602 <sup>a</sup>	0.362	0.358	0.4211	
2	0.702 <sup>b</sup>	0.493	0.487	0.389	
3	0.703 <sup>c</sup>	0.494	0.451	0.390	
a. Predictors: (Constant), SI_Index					
b. Predictors: SI_Index, ORI_Index					
c. Predictors: SI_Index, ORI_Index, Strategy_Intangible					
<b>ANOVA<sup>a</sup></b>					
Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	18.022	1	18.022	101.59	0.000
Residual	31.754	179	0.177		
Total	49.776	180			
2 Regression	24.520	2	12.260	86.405	0.000
Residual	25.256	178	0.142		
Total	49.776	180			
3 Regression	24.584	3	8.195	57.577	0.000
Residual	25.192	177	0.142		
Total	49.776	180			
a. Dependent Variable: OP_Index					
<b>Coefficients<sup>a</sup></b>					
Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.096	0.238		4.609	0.000
SI_Index	0.569	0.056	0.602	10.079	0.000
2 (Constant)	0.629	0.224		2.814	0.005
SI_Index	0.220	0.072	0.233	3.055	0.003

**Table 4.27 continued...**

	ORI_Index	0.495	0.073	0.516	6.767	0.000
3	(Constant)	-0.052	1.037		-0.050	0.960
	SI_Index	0.382	0.250	0.404	1.525	0.129
	ORI_Index	0.701	0.315	0.731	2.226	0.027
	Strategy_Intangible	-0.048	0.072	-0.360	-0.673	0.502

**Source:** Research Data (2021)

The results ascertain the significant effect of strategy implementation on the performance of Kenya owned SCs ( $F(1, 179) = 101.59, p < 0.05$ ). The second model assessed the effect of strategy implementation and intangible resources. With an  $R^2$  of 0.493, the second model demonstrated better explanatory power than the first one, which had  $R^2$  of 0.362. Similarly, the adjusted  $R^2$  increased from 0.358 to 0.487 implying there was an increase in explanatory power if the number of variables in each model were to be controlled for. The third model reported an  $R^2$  of 0.494 indicating that the incremental variance accounted for by the interaction term was minimal. The adjusted  $R^2$  in the third model decreased negligibly from 0.487 to 0.451 if the number of variables in the models were to be taken into account.

An inspection of the coefficients for the third model reveals an insignificant interaction term ( $\beta = -0.05, t(180) = -0.67, p > 0.05$ ). Therefore, the results do not provide evidence that intangible resources significantly moderate the relationship between strategy implementation and performance. With the potential moderation effects of organizational resources constructs assessed, the analysis proceeded to the actual testing of the hypothesis.

The testing involved the use of composite indices for organizational resources, strategy implementation and organizational performance in a hierarchical regression analysis. The results derived from this analysis are shown displayed in Table 4.28.

**Table 4.28: Strategy Implementation, Organizational Resources and Organizational Performance**

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	0.602 <sup>a</sup>	0.362	0.358	0.421		
2	0.719 <sup>b</sup>	0.516	0.511	0.368		
3	0.719 <sup>c</sup>	0.517	0.509	0.369		
a. Predictors: (Constant), SI_Index						
b. Predictors: SI_Index, OR_Index						
c. Predictors: SI_Index, OR_Index, Strategy_Resources						
ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	18.022	1	18.022	101.59	0.000
	Residual	31.754	179	0.177		
	Total	49.776	180			
2	Regression	25.707	2	12.853	95.055	0.000
	Residual	24.069	178	0.135		
	Total	49.776	180			
3	Regression	25.722	3	8.574	63.094	0.000
	Residual	24.053	177	0.136		
	Total	49.776	180			
Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.096	0.238		4.609	0.000
	SI_Index	0.569	0.056	0.602	10.079	0.000
2	(Constant)	0.696	0.224		2.814	0.005
	SI_Index	0.268	0.072	0.233	3.055	0.003
	ORI_Index	0.471	0.073	0.516	6.767	0.000
3	(Constant)	0.335	1.078		0.311	0.756
	SI_Index	0.352	0.256	0.373	1.374	0.171
	OR_Index	0.590	0.354	0.634	1.665	0.098
	Strategy_Resources	-0.028	0.081	-0.198	-0.341	0.733

Sources: Research Data (2021)

The first model with strategy implementation as the only predictor explained 36.2% ( $R^2=0.363$ ) of variation in the data and 35.8% (adjusted  $R^2 =0.358$ ) if the number of independent variables in the model were to be controlled for. The second model with strategy implementation and organizational resources as the independent variables accounted for 51.6% ( $R^2=0.516$ ) of the variance in the data. This model accounted for 51.1% (adjusted  $R^2= 0.511$ ) if the number of independent variables were to be controlled for. The third model with the interaction term explained 51.7% ( $R^2=0.517$ ) of the variance and 50.9% ( $R^2=0.509$ ) if the number of independent variables were to be adjusted for.

The results indicate that all the three models were statistically significant ( $p <0.05$ ). In the first and second model, all the regression coefficients were statistically significant. However, in the third model, which contained the interaction term, none of the regression coefficients was found to be statistically significant. This provided indication that organizational resources did not have a significantly moderating effect. As such, the null hypothesis that organizational resources do not significantly moderate the influence of strategy implementation on the performance of Kenya owned SCs was not rejected.

#### **4.6.3 Strategy Implementation, Operating Environment and organizational Performance**

The third research objective set out to assess the influence of operating environment on the relationship between strategy implementation and performance of Kenya owned SCs.

Based on the literature review, it was expected that the operating environment would either buffer or impede the effects of strategy implementation on the performance of the Corporations. Thus, the following null hypothesis was formulated:

H<sub>03</sub>: The operating environment does not significantly moderate the relationship between strategy implementation and the performance of Kenya owned SCs

The hypothesis was tested using hierarchical regression. The hierarchical regression involved use of composites for the independent variable, moderator and outcome variable.

To this end, the composite for operating environment (moderator) was created by averaging its constructs' indices. Dynamism, complexity and political goodwill and support represented the underlying constructs of operating environment. The decision to reject or not to reject the hypothesis was reached based on the statistical significance attached to the interactive effect. The interaction term between the operating environment and strategy was thus examined to see whether it was significant and, if so, it would be indication of moderation, which would ultimately, lead to rejection of the hypothesis. However, prior to testing the hypothesis, the potential moderating effects of each dimension were tested. Table 4.29 displays the output yielded from assessing the potential moderating effect of dynamism.

**Table 4.29: Strategy Implementation, Dynamism and Organizational Performance**

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	0.602 <sup>a</sup>	0.362	0.358	0.421		
2	0.603 <sup>b</sup>	0.363	0.356	0.422		
3	0.603 <sup>c</sup>	0.364	0.353	0.423		
a. Predictors: (Constant), SI_Index						
b. Predictors: SI_Index, OED_Index						
c. Predictors: SI_Index, OED_Index, Strategy_Dynamism						
ANOVA <sup>a</sup>						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	18.022	1	18.022	101.59	0.000
	Residual	31.754	179	0.177		
	Total	49.776	180			
2	Regression	18.070	2	9.035	50.726	0.000
	Residual	31.705	178	0.178		
	Total	49.776	180			
3	Regression	18.103	3	6.034	33.721	0.000
	Residual	31.673	177	0.179		
	Total	49.776	180			
a. Dependent Variable: OP_Index						
Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.096	0.238		4.609	0.000
	SI_Index	0.569	0.056	0.602	10.079	0.000
2	(Constant)	0.988	0.316		3.128	0.002
	SI_Index	0.562	0.058	0.595	9.731	0.000
	OED_Index	0.035	0.066	0.032	0.523	0.602
3	(Constant)	1.685	1.677		1.005	0.316
	SI_Index	0.389	0.413	0.412	0.943	0.347
	OED_Index	-0.156	0.454	-0.14	-0.342	0.732
	Strategy_Dynamism	0.047	0.111	0.280	0.424	0.672

**Source:** Research Data (2021)



The results show that the coefficient of determination increased from 0.362 to 0.363 upon the addition of the moderating variable and to 0.364 when the interaction term was included. When taking into consideration the number of independent variables, the adjusted  $R^2$  decreased negligibly from 0.358 to 0.356 upon the inclusion of the moderating variable and to 0.353 when the interaction term was included. The three models were associated with  $p$ -values of less than 0.05 signifying they achieved acceptable levels of statistical significance. An inspection of the regression coefficients shows that strategy implementation had a statistically significant effect ( $p < 0.05$ ) on performance in both the first and second model. The third model reveals that none of the regression coefficients was statistically significant as all the  $p$ -values were greater than 0.05. As such, it was deduced that environmental turbulence does not moderate the relationship between strategy implementation and performance of Kenya owned SCs.

The next step in the analysis involved testing for the potential moderating effects of environmental complexity. This was achieved through hierarchical regression analysis. The results from running this analysis are displayed in Table 4.30.

**Table 4.30: Strategy Implementation, Complexity and Organizational Performance**

Model Summary					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	
1	0.602 <sup>a</sup>	0.362	0.358	0.421	
2	0.606 <sup>b</sup>	0.368	0.361	0.420	
3	0.610 <sup>c</sup>	0.410	0.400	0.420	
a. Predictors: (Constant), SI_Index					
b. Predictors: SI_Index, OEC_Index					
c. Predictors: SI_Index, OEC_Index, Strategy_Complexity					
ANOVA <sup>a</sup>					
Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	18.022	1	18.022	101.59	0.000
Residual	31.754	179	0.177		
Total	49.776	180			
2 Regression	18.310	2	9.155	51.787	0.000
Residual	31.466	178	0.177		
Total	49.776	180			
3 Regression	20.384	3	6.795	40.919	0.000
Residual	31.673	177	0.166		
Total	49.776	180			
a. Dependent Variable: OP_Index					
Coefficients <sup>a</sup>					
Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.096	0.238		4.609	0.000
SI_Index	0.569	0.056	0.602	10.079	0.000
2 (Constant)	1.256	0.268		4.679	0.002
SI_Index	0.575	0.057	0.608	10.170	0.000
OEC_Index	-0.054	0.042	-0.076	-1.276	0.204
3 (Constant)	-2.786	1.173		-2.376	0.019
SI_Index	1.511	0.270	1.599	5.586	0.000
OEC_Index	1.193	0.355	1.690	3.359	0.001
Strategy_Complexity	-0.289	0.082	-2.110	-3.535	0.001

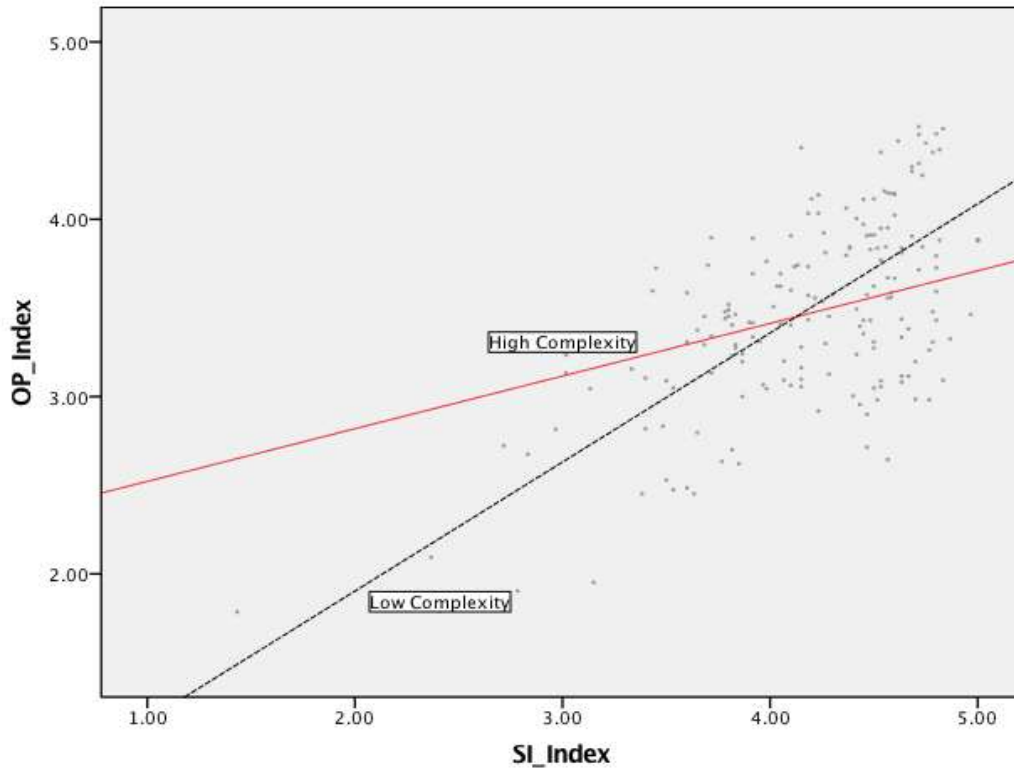
**Source:** Research Data (2021)

As seen in Table 4.30, the third model containing the interaction term accounted for the highest portion of variance (41%) in performance of the Kenya owned SCs compared to the first (36.2%) and second model (36.8%).

In the same light, when controlling for the number of independent variables in each model, the adjusted  $R^2$  was highest in the third model (40%) followed by the second model (36.1%) and the first model (35.8%). In addition, statistical significance was established for the three models ( $p < 0.05$ ) suggesting that all the models were significant.

All the regression coefficients in the third model were statistically significant thus confirming the moderating effect of environmental complexity. The negative sign on the coefficient of the interactive term shows that environmental complexity reduced the positive effect of strategy implementation on performance of Kenya owned SCs by a factor of 0.289. The interaction effect was further portrayed graphically through a simple slope analysis. Specifically, the analysis was based on the mean of the moderator at one standard deviation above (high complexity) and below the moderator's mean (low complexity).

The results of the analysis are depicted in Figure 4.9.



**Figure 4.9: A Slope Analysis for the Moderating Effect of Complexity**  
**Source:** Research Data (2021)

The slope of the lines in the plot represents the magnitude of the positive effect of strategy implementation. As such, it can be seen that the positive effect of strategy implementation on performance was pronounced in environments characterized by low complexity. On the other hand, the positive effect of strategy implementation was lesser for Corporations that operate in highly complex environments.

The third dimension of operating environment, political goodwill and support, was tested for possible moderating effect on the link between strategy implementation and performance of Kenya owned SCs. A hierarchical regression analysis was conducted where the construct index for the dimension acted as the moderating variable. The results from the hierarchical regression analysis are displayed in Table 4.31.

**Table 4.31: Strategy Implementation, Political Support and Organizational Performance**

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	0.602 <sup>a</sup>	0.362	0.358	0.421		
2	0.609 <sup>b</sup>	0.378	0.363	0.420		
3	0.609 <sup>c</sup>	0.370	0.360	0.421		
a. Predictors: (Constant), SI_Index						
b. Predictors: SI_Index, OEP_Index						
c. Predictors: SI_Index, OEP_Index, Strategy_Political						
ANOVA <sup>a</sup>						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	18.022	1	18.022	101.59	0.000
	Residual	31.754	179	0.177		
	Total	49.776	180			
2	Regression	18.435	2	9.218	52.352	0.000
	Residual	31.341	178	0.176		
	Total	49.776	180			
3	Regression	18.436	3	6.145	34.706	0.000
	Residual	31.340	177	0.117		
	Total	49.776	180			
a. Dependent Variable: OP_Index						
Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.096	0.238		4.609	0.000
	SI_Index	0.569	0.056	0.602		
2	(Constant)	1.345	0.287		4.682	0.000
	SI_Index	0.554	0.057	0.586		
	OEP_Index	-0.064	0.042	-0.092		
3	(Constant)	1.404	1.507		0.931	0.353
	SI_Index	0.540	0.342	0.572		
	OEP_Index	-0.083	0.480	-0.120		
	Strategy_Political	0.04	0.109	0.029	0.040	0.968

**Source:** Research Data (2021)

The first model confirms the significant association between of strategy implementation and the performance of Kenya owned SCs ( $F(1, 179) = 101.59, p < 0.05$ ). Political goodwill and support was added in the second model, which led to an increase in explained variation of 1.6%. The adjusted  $R^2$  shows there was a 0.5% decrease in explanation if the number of predictor variables in the models was to be adjusted for. The second model was also found to be statistically significant ( $p < 0.05$ ). The final model was found to be statistically significant ( $p < 0.05$ ) although it explained 0.8% less variation than the previous model.

When taking into consideration the number of independent variables in the model, the values of the adjusted  $R^2$  show there was 0.3% decrease in explained variation. None of the regression coefficients in the third model was found to be statistically significant. This suggested that political goodwill and support did not moderate the association between strategy implementation and performance of Kenya owned SCs.

With the moderating effects of operating environment dimensions explored, the next step was to test the hypothesis that the operating environment significantly moderates the effects of strategy implementation on organizational performance. This entailed undertaking a hierarchical regression with the operating environment composite index as the moderator. The composite scores for strategy implementation and organizational performance as the predictor and outcome variables, respectively. Table 4.32 displays the output from the regression analysis.

**Table 4.32: Strategy Implementation, Operating Environment and Organizational Performance**

<b>Model Summary</b>						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	0.602 <sup>a</sup>	0.362	0.358	0.421		
2	0.609 <sup>b</sup>	0.368	0.361	0.420		
3	0.609 <sup>c</sup>	0.379	0.369	0.418		
a. Predictors: (Constant), SI_Index						
b. Predictors: SI_Index, OE_Index						
c. Predictors: SI_Index, OE_Index, Strategy_Environment						
<b>ANOVA<sup>a</sup></b>						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	18.022	1	18.022	101.59	0.000
	Residual	31.754	179	0.177		
	Total	49.776	180			
2	Regression	18.435	2	9.217	51.924	0.000
	Residual	31.341	178	0.177		
	Total	49.776	180			
3	Regression	18.436	3	6.290	36.020	0.000
	Residual	31.340	177	0.175		
	Total	49.776	180			
a. Dependent Variable: OP_Index						
<b>Coefficients<sup>a</sup></b>						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.096	0.238		4.609	0.000
	SI_Index	0.569	0.056	0.602	10.079	0.000
2	(Constant)	1.401	0.329		4.264	0.000
	SI_Index	0.571	0.056	0.605	10.136	0.000
	OE_Index	-0.092	0.069	-0.080	-1.343	0.181
3	(Constant)	-1.847	1.895		-0.975	0.331
	SI_Index	1.320	0.434	1.397	3.040	0.003
	OE_Index	0.887	0.567	0.771	1.565	0.119
	Strategy_Environment	-0.226	0.130	-1.184	-1.740	0.084

Source: Research Data (2021).

As shown in Table 4.32, strategy implementation in the first model was positively associated with performance ( $\beta = 0.57$ ,  $t(180) = 10.08$ ,  $p < 0.05$ ). In the second model, operating environment was added as a predictor of performance. Whereas strategy implementation was significantly positively related to performance ( $\beta = 0.57$ ,  $t(180) = 10.14$ ,  $p < 0.05$ ) in the second model, operating environment was not ( $\beta = -0.09$ ,  $t(180) = -1.343$ ,  $p > 0.05$ ). Adding operating environment at this step led to an increase in explained variation of 0.6% or 0.3% if the number of independent variables were to be controlled for. In the third model, the interaction term was added. Adding this interaction term culminated in a 0.11% increase in explained variance or 0.7% if the number of independent variables were to be adjusted for.

The regression coefficient associated with the interaction term was not statistically significant ( $\beta = -0.23$ ,  $t(180) = -1.74$ ,  $p > 0.05$ ). This implied that the operating environment did not significantly moderate the relationship. Consequently, the null hypothesis that operating environment does not significantly moderate the relationship between strategy implementation and performance of Kenya owned SCs was not rejected.

#### **4.6.4 Strategy Implementation, Organizational Resources, Operating Environment and Organizational Performance**

The final objective of the study was to assess the joint effect of strategy implementation, organizational resources and operating environment on performance of Kenya owned SCs. In order to achieve this objective, the following proposition was tested:



H<sub>04</sub>: The joint influence of strategy implementation, organizational resources and operating environment on the performance of Kenya owned SCs is not significantly greater than the influence of the sum total of the separate variables.

Simple and multiple linear regression analyses were applied in testing the hypothesis. Strategy implementation, organizational resources and operating environment functioned as independent variables. In the first step, the bivariate relationships between performance and each of the independent variables were examined through simple regression. The R<sup>2</sup> associated for each independent variable was noted. In the second step, performance was regressed on all the independent variables combined.

The decision to reject or not to reject the hypothesis was reached based on the comparison between the R<sup>2</sup> tied to the multiple regression model and the sum total of all the R<sup>2</sup> for the independent variables. If the R<sup>2</sup> attached to the multiple regression model exceeded the sum total, then the null hypothesis would be rejected. Table 4.33 displays a summary of the results obtained (See Appendix VIII for regression output).

**Table 4.33: Strategic Implementation, Organizational Resources, Operating Environment and Organizational Performance**

Relationship	R Square	Adjusted R Square	F	Sig.
Organizational Performance = $f$ (strategy implementation)	0.362	0.358	101.590	0.000
Organizational Performance = $f$ (organizational resources)	0.468	0.465	157.486	0.000
Organizational Performance = $f$ (operating environment)	0.004	0.002	0.712	0.400
<b>Total</b>	<b>0.834</b>	<b>0.825</b>		
Organizational Performance = $f$ (strategy implementation, organizational resources, operating environment)	0.517	0.509	63.265	0.000

Source: Research Data (2021)

The results show that when taken separately, only operating environment did not have a significant impact on performance ( $F(1, 179)=0.712, p >0.05$ ) out of the three independent variables. Collectively, the sum total of the separate independent variables accounted for 83.4% of variation in performance of SCs. This exceeds the 51.7% explained variance by the joint effect of the variables. Similarly, adjusting for the number of variables in each model, the sum total of the variation in performance accounted for by each independent variable (adjusted  $R^2 = 0.825$ ) exceeded the variance explained by the joint effect of the variables (adjusted  $R^2=0.509$ ).

As such, the hypothesis that the joint influence of strategy implementation, organizational resources and operating environment on the performance of Kenya owned SCs is not significantly greater than the influence of the sum total of the separate variables was not rejected.

#### **4.7 Summary of Hypotheses Tests Results**

The study focused on presenting the results obtained from testing of four hypotheses. The first hypothesis proposed that strategy implementation did not have a significant impact on the performance of Kenya owned SCs. The results indicated that out of the two dimensions that constitute strategy implementation, only strategy institutionalization had a significant effect on performance. A simple linear regression analysis was performed where the composite score for performance was regressed on the composite score for strategy implementation. The analysis revealed that strategy implementation had a significant and positive effect on performance hence the first hypothesis was rejected.

The second hypothesis addressed the potential moderating role of organizational resources on the relationship between strategy implementation and performance. This hypothesis was tested using hierarchical regression. An exploration of the possible moderating effects of tangible and intangible resources was first conducted. The results indicated that neither tangible nor intangible assets had a moderating effect. The results were further confirmed when the composite score for organizational resources was used in the analysis as a potential moderator. These results provided enough evidence not to reject the second hypothesis. It was concluded that the organizational resources did not have a significant moderating effect on the relationship between strategy implementation and performance.

The third hypothesis suggested that the operating environment did not have significant moderating effect on the relationship between strategy implementation and performance. Prior to testing the proposition, the moderating effect of the three dimensions (dynamism, complexity and political goodwill and support) underlying operating environment was assessed. Out of the three dimensions, only complexity was found to have a significant moderating effect. In particular, complexity had a negative moderating effect, such that the positive effects of strategy implementation were most pronounced in operating environments with low complexity. However, taken as a whole, the operating environment did not have a significant moderating effect on the relationship between strategy implementation and performance of Kenya owned SCs. Therefore, the third hypothesis was not rejected.

The fourth hypothesis postulated that the joint effect of strategy implementation, organizational resources and operating environment on performance was not significantly greater than the influence of sum total of the separate variables. This hypothesis was tested using simple and multiple regression linear analysis. The simple linear regression allowed for assessment of how much variance in performance was explained by each independent variable. On the other hand, the multiple linear regression helped to portray how much variability in performance was accounted for when the independent variables acted jointly.

The results showed that the sum-total variance in performance accounted for when the variables acted in isolation was greater than the variance explained by the variables acting jointly. Consequently, the fourth hypothesis was not rejected.

#### **4.8 Chapter Summary**

In this chapter, the organizational profile of the SCs and how the variables of interest were manifested in these organizations was examined through descriptive statistics such as frequencies, mean, standard deviation, CV and one-sample *t*-test. The results reflected mixed outcomes of how various variables were manifested. It was evident that strategy implementation was extensively carried out in the SCs with greater emphasis on strategy operationalization. The Corporations had large reserves of organizational resources with intangible assets representing the majority share. In addition, the operating environment was marked by a fair amount of changes. The environment was also established to be highly dynamic, complex and characterized by moderate political goodwill and support. The performance of the SCs was found to be reasonable but with high process efficiency and organizational relevance.

The chapter also presented results obtained from testing the hypotheses of the study. The first hypothesis which predicted strategy implementation has no significant impact on performance of Kenya owned SCs was rejected. The second hypothesis which postulated that organizational resources do not significantly moderate the effects of strategy implementation on the performance of Kenya owned SCs was not rejected. Similarly, the third hypothesis which predicted no moderating effect of operating environment on the link between strategy implementation and performance of Kenya owned SCs was not rejected. Lastly, the fourth hypothesis which postulated that the joint effect of strategy implementation, organizational resources and operating environment on performance of Kenya owned SCs was not greater than the sum total of the separate variables, was not rejected.

## **CHAPTER FIVE**

### **DISCUSSION OF FINDINGS**

#### **5.1 Introduction**

The goal of this chapter is to place the findings made in this study within the context of the existing body of knowledge. In particular, the findings of the study are first compared with both the theoretical postulations on which the hypothesized and evaluated relationships were grounded. The findings are then compared with findings of other similar scholarly works to determine the extent of concurrence and/or divergence.

#### **5.2 Manifestation of Study Variables**

The study set out to uncover how strategy implementation, organizational resources and the operating environment interact to shape the performance of Kenya owned SCs. Underlying this objective was the core argument that strategy implementation in conjunction with organizational resources as well as the organizational context could make demonstrative difference to performance of the Corporations. As an initial step, the manifestations of these variables were explored via descriptive statistics.

The study found that strategy implementation in the Kenya owned SCs is extensively enacted through operationalization and institutionalization. Operationalization was found to include a greater emphasis on integration of strategy into strategic plans, cascading of defined strategic objectives to organizational departments and use of written policies. With respect to strategy institutionalization, there was evidence of a greater prioritization on cascading strategic objectives down the organization, coordination of different functions and re-adjustment of hierarchical structures to ensure strategic activities are carried out.

These findings indicate that SCs usually undertake strategy implementation in a structured manner with proper documentation, highlighting targets, objectives, activities, sub-activities, performance indicators, responsible persons and budget implications. This approach reflects the classical or rational-planning approach put forward by Chandler (1962). The view suggests that implementation involves determination of organizational objectives through an elaborate, formal and rational decision-making approach as well as a commitment to the best course of action required for the realization of goals.

The findings also show that strategy implementation in the SCs demonstrates vertical integration. This vertical integration is pursued through adoption of a top-down approach with the top and senior managers communicating systematically information pertaining to strategic goals in a cascading fashion to departments. The departments further communicate the information about strategic issues downwards and unveil policies to the employees. This approach towards strategy implementation has been widely acknowledged to be crucial to organizational development (Francis, Holbeche & Reddington, 2012; Stanford, 2012; Withers, 2012).

The results revealed that SCs are characterized by a large reserve of organizational resources. The intangible assets were found to be more extensive than the tangible resources. The tangible resources featured to a large extent adequate office equipment and qualified employees. With respect to the intangible resources, the Corporations were endowed extensively with skilled employees, good reputation and modern technology. Overall, these findings highlight that the Corporations placed greater emphasis on intangible assets and their integration into the achievement of goals.

The findings reflect the basic premise of the RBV that a firm's internal resources should be considered in implementing strategies geared towards achievement of goals. The operating environment of the SCs was also explored. The results revealed that the Corporations operate in an environment that features a fair level of political goodwill and support and high dynamism as well as complexity. The highly dynamic and complex conditions are likely to be a reflection of the prevailing business environment globally characterized by megatrends in technological breakthroughs, social changes, rapid urbanization and resource scarcity. Generally, this outcome is similar to the finding by Njoroge, Ongeti, Kinuu and Kasomi (2016) who found that Kenyan SCs operate in a highly complex environment.

With respect to performance, the SCs were found to perform fairly well. The highest performance was associated with process efficiency, followed by organizational relevance and financial performance. The high process efficiency was attributed to the optimal use of financial resources, as well as, buildings and equipment. On the other hand, it is likely that poor financial performance stemmed from inadequate financial resources needed to maximize returns on assets or investments.

### **5.3 Strategy Implementation and Organizational Performance**

The first objective of the study sought to determine how strategy implementation shapes the performance outcomes of Kenya owned SCs. The proposition that strategy implementation does not significantly influence performance of the Corporations was tested. In order to test this hypothesized link between the two variables of interest, a simple linear regression was performed utilizing the composite scores of the variables.



The results showed that strategy implementation accounted for 36.2% of variation in the performance of SCs. The model predicting the link between strategy implementation and performance of the Corporations was found to be statistically significant,  $F(1, 179) = 101.59, p < 0.05$ . In addition, the model indicated that a unit increment in strategy implementation would enhance performance of the Corporations by a factor of 0.569. Overall, the findings provided support to the alternative hypothesis that strategy implementation exerts a significant impact on the performance of the SCs. These results indicate that strategy implementation is done effectively and thus reflects the Corporations' capability to adopt and put in action a repertoire of excellent operational practices that guarantee better outcomes.

In this regard, the finding exemplifies the established theoretical claim that the capability of a firm to create and implement a value-creating strategy has a performance effect. This claim is the central tenet of the Dynamic Capabilities Theory advanced by Teece et al. (1997). The theory predicts that an organization with greater capacity to routinely integrate, build and reconfigure its capabilities to sense and capitalize on opportunities will outperform one with less capacity.

In addition, the finding suggests that the SCs have adequate and proper structures that facilitate the integration of strategies in organizational processes and practices. These structures ensure that strategy is aligned with employee behaviour. As such, the finding supports the view advanced by institutional theory that proper organizational structures are critical in enhancing organizational performance. This finding parallels studies that have attempted to clarify the association between strategy implementation and performance of state owned enterprises.

For instance, the finding is consistent with the study by Law, Tavitiyaman and Zhang (2015). These researchers studied state owned hotels in China and demonstrated that the hotels achieved desirable performance as a result of applying successful implementation of strategies focused on branding, human resources, cost efficiency and technologies. In effect, they demonstrated a positive association between strategy implementation and performance. Similarly, Njoroge et al. (2015) established that execution of strategies was associated with better performance outcomes of Kenyan SCs.

In another study by Mwai, Mwangi and Munga (2017) it emerged that strategy implementation practices were associated with enhanced performance of SCs within the Kenyan energy sector. Kilile, Munga and Were (2018) also found that successful strategy implementation was associated with desirable performance outcomes of SCs falling under the Ministry of Tourism in Kenya. Further, in a more recent study, Mwangi, Kariuki and Muturi (2020) established that there were gains in terms of performance from the efforts of implementing strategic plans by Kenya owned SCs.

The finding of this study is also comparable to studies that have been carried out in the private sector. For instance, the finding fits reasonably well with that of Lefort et al. (2015) who observed that firms with excellent strategy implementation practices report better financial performance than those with poor practices. Similarly, the finding corroborates a study by Mailu, Ntale and Ngui (2018) who observed that desirable performance outcomes of Kenyan pharmaceutical companies could be attributed to their strategic implementation practices. Additionally, the finding is in line with Njagi and Kombo (2014) who asserted that strategy implementation enhanced the overall performance outcomes of Kenyan commercial banks.

#### **5.4 Strategy Implementation, Organizational Resources and Organizational Performance**

The nature of interaction between strategy implementation and organizational resources and its consequent implication for the performance outcomes of Kenya owned SCs was captured in the second objective of this inquiry. To this end, it was hypothesized that organizational resources do not significantly moderate the effects of strategy implementation on performance of the Corporations. To uncover support (or lack thereof) of this hypothesis, a hierarchical regression was utilized.

The hierarchical regression showed that neither tangible nor intangible resources exerted a significant role on the relationship between strategy implementation and organizational performance. Similarly, organizational resources were found to exhibit no moderating effect. In light of these findings, the hypothesis that organizational resources do not significantly moderate the effects of strategy implementation on performance of Kenya owned SCs was not rejected. As such the findings failed to support the RBV, which considers exploitation of organizational assets to be important sources of superior organizational performance. Under the RBV, it would be anticipated that a high reserve of organizational resources would complement other factors that positively affect performance.

The lack of moderating effect could also mean that the organizational resources did not meet the four requirements for competitive resources under the RBV framework which include; valuableness, rarity, inimitability and non-substitutability (Barney, 1991). The findings yielded under this objective contradicted the few previous studies that have established the moderating role of organizational resources.

For instance, the findings are inconsistent with Ipek and Tanyeri (2020) who found evidence suggesting that firm resources played a significant and moderating role on the linkage between export market orientation and export performance of Turkish exporting firms. In another study, Gaur, Vasudevan and Gaur (2011) observed that the impact of market orientation on the manufacturing performance of small business in India was heightened by the aggregate resources possessed by a firm. In Kenya, apart from demonstrating presence of a significant impact of competitive strategy on the performance outcomes of listed companies, Osoro (2013) observed that the effects of strategy were exacerbated by a firm's collection of intangible assets. The difference in operationalization of resources and the different contexts of the studies (private sector) may have led to the variance in the outcome on the moderating effect of organizational resources.

### **5.5 Strategy Implementation, Operating Environment and Organizational Performance**

The interaction between strategy implementation and operating environment and the consequence of this interaction on the ability of Kenyan owned SCs to achieve desirous performance results was captured in the third objective. A corresponding hypothesis was formulated which proposed that the operating environment does not significantly moderate the impact of strategy implementation.

In order to examine this hypothesized link a hierarchical regression analysis was applied. Prior to testing the hypothesis, the potential moderating effects of the operating environment were assessed. No significant moderating effect was detected for dynamism as well as a political goodwill and support.

However, the complexity dimension was found to moderate the positive effect of strategy implementation on performance of the SCs. In particular, the results revealed that the positive impact of strategy implementation was more pronounced in less complex settings than in highly complex ones. Overall, the aggregate effect of the three dimensions did not moderate the linkage between strategy implementation and organizational performance. Therefore, the null hypothesis that the operating environment does not significantly moderate the impact of strategy implementation was not rejected.

One possible explanation for failure to reject the hypothesis is that it was too broadly stated. For instance, out of the three dimensions, only complexity had a moderating effect. From a broad perspective, it would be expected that the operating environment would moderate the effect of strategy implementation as predicted by the Dynamic Capability Theory. The theory argues that given the operating environment is characterized by rapid changes, organizations would find novel ways to sustain their performance and competitive advantage. This would consequently either amplify or reduce the impact of strategy implementation. However, viewing the operating environment in terms of its dimensions, the tenets of the theory appear to hold with respect to complexity.

The finding that the operating environment (as a whole) does not have moderating effect with respect to organizational performance is consistent with a previous study by Atinc and Ocal (2014). The researchers found that the organizational setting did not exhibit a significant moderating role on the relationship between corporate governance transformations and performance outcomes.

Similarly, the finding is in line with Gurra (2018) who established that environmental factors neither exacerbated nor diminished the impact of market orientation on performance outcomes of tertiary institutions in the Philippines.

The finding, however, contradicts Mudany, Letting and Gituro (2020) who demonstrated that the broader macro-environment characteristics surrounding institutions in the Kenyan energy sector heightened the impact of strategy implementation on performance. In the same light, Machuki and Aosa (2011) found that environmental factors made a significant contribution to the performance outcomes of listed firms in Kenya. Moreover, the findings of this study are incongruent with Gachugu, Awino, Machuki and Iraki (2019) who found that external environmental factors moderated the relationship between top management team and performance of public benefit organizations.

### **5.6 Strategy Implementation, Organizational Resources, Operating Environment and Organizational Performance**

The final aim of this inquiry was to assess how strategy implementation, organizational resources and operating environment function jointly to determine the performance of Kenya owned SCs. To this end, it was hypothesized that the joint impact of strategy implementation, organizational resources and operating environment is not greater than the cumulative effect of the separate variables.

In testing this proposition, a combination of simple and multiple regression techniques were employed. The results revealed that the proportion of variance explained by the sum total of the three independent variables amounted to 83.4%. On the other hand, when combined into one model, the variables accounted for 51.7% of variance in performance.

These results suggested that the joint effect of strategy implementation, organizational resources and operating environment was less than the cumulative effect of the variables when acting in isolation. Consequently, the null hypothesis was not rejected.

Based on the underlying propositions of institutional theory, RBV, and DCT, it would be expected that superior performance would be achieved when the three variables acted jointly, rather than in isolation. However, this was not the case, which is a possible indication of one of the criticisms frequently aimed at advocates of contingency or best-fit approach, which includes theories such as the RBV. The criticism is centered on the lack of sophistication in description of organizational reality where in relating an external variable to another internal variable, a linear and non-problematic association is assumed.

Given that it is unlikely that an organization will rely on one independent variable to achieve optimum performance owing to the constantly changing external environment, it is possible that the three independent variables would maximize performance through a configuration approach. Such an approach would allow for non-linear synergistic effects on performance that are a better reflection of organizational reality. For instance, implementation of strategy would need to fit the best organizational resources and critical factors in the operating environment. This way, when aligned, the joint effect of the three variables would contribute better to performance. Nonetheless, the finding conforms with earlier studies on factors that drive organizational performance (Dobni & Luffman, 2003; Lefort et al., 2006; Pryor et al., 2007; Favaro, 2015).

## **5.7 Chapter Summary**

The link between the findings and theories that underpinned this study as well as the existing literature has been explored in this chapter. It is apparent that the findings concerning the hypothesized relationships offered some support to the postulations of Institutional theory, RBV, DCT and NPM Theory. For instance, the finding that strategy implementation positively and significantly influences performance fits well with the Dynamic Capabilities and Institutional theories. This finding was also consistent with previous studies (Law et al., 2015; Njoroge et al., 2015; Waweru, 2011).

The finding that both organizational resources and operating environment do not significantly moderate the influence of strategy implementation on performance contradicted the theoretical propositions of RBV and DCT. This outcome also contradicted a number of previous studies (Atinc & Ocal, 2014; Gurrea, 2018; Gaur et al., 2011; Ipek & Tanyeri, 2020; Osoro, 2013). Similarly, the finding that joint influence of strategy implementation, organizational resources and operating environment was less than that of the sum total of the separate variables was not supported by the institutional theory.



## CHAPTER SIX

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### 6.1 Introduction

This chapter highlights the principal findings generated in this inquiry. Conclusions emanating from the findings are then drawn as per the objectives set out to be achieved from the onset of this study. Critical implications for theory, methodology, policy and managerial practice drawn from the practical significance of this study's findings are also discussed. In addition, limitations that could potentially impinge the quality of insights produced in this inquiry are also brought to light. Accordingly, suggestions are offered on areas that future researchers should concentrate on.

#### 6.2 Summary of Findings

The main objective of undertaking this inquiry was to find out how strategy implementation, organizational resources and operating environment interact to shape performance of Kenya owned SCs. To facilitate achievement of this overarching objective, it was disaggregated into a set of four specific objectives. The first objective addressed how strategy implementation influences performance. The potential moderating role of organizational resources and operating environment on the direct impact of strategy implementation on performance were captured in the second and third objectives. The last objective was intended to explore whether variations in performance outcomes could be attributed to the combined effect of strategy implementation, organizational resources and the operating environment. For each of the specific objectives, a corresponding hypothesis was formulated and tested. This section provides a summary of the key findings related to each objective.

### **6.2.1 Strategy Implementation and Organizational Performance**

The first objective sought to uncover how the performance of Kenya owned SCs is influenced by the extent of strategy implementation. The findings indicated that execution of strategies in these Corporations is pursued extensively along two dimensions; operationalization and institutionalization. However, of these two dimensions, it was established that the focus is mainly on strategy operationalization.

With respect to operationalization, there was great emphasis on incorporation of strategy into strategic plans, communication of defined strategic objectives to departments and writing down of policies. On the other hand, for strategy institutionalization, priority was given to cascading of strategic objectives to all functional departments, coordination of different functions and reconfiguration of the organizational structures to facilitate orchestration of strategic activities.

Having assessed the manifestation of strategy implementation and performance, the next step involved testing the null hypothesis that strategy implementation does not significantly influence the performance of Kenya owned SCs. This was accomplished through simple regression analysis. Prior to running the regression analysis, the differential impact of the two elements of strategy implementation was assessed. The analysis showed that significant performance outcomes could be derived only from strategy institutionalization. On the other hand, strategy implementation as a bundle of operationalization and institutionalization was found to be positively and significantly linked to performance. Consequently, the null hypothesis was rejected.

## **6.2.2 Strategy Implementation, Organizational Resources and Organizational Performance**

The second objective of the study was to establish the role of organizational resources in the strategy implementation-performance association within the context of Kenya owned SCs. To this end, a descriptive assessment of organizational resources was conducted. The descriptive statistics revealed that the SCs were highly endowed with resources. Of these resources, intangible assets represented the largest share. As to the specific intangible resources, the Corporations were highly endowed good reputation and modern technology. The results also showed that the tangible resources were highly concentrated in form of office equipment and qualified employees.

The hypothesis that corresponded to this objective proposed that organizational resources do not moderate the effects of strategy implementation on performance of the SCs. This proposition was evaluated using hierarchical regression analysis. The results revealed that neither tangible nor intangible resources had moderating effects on the strategy implementation-performance relationship. At the same time, it was established that organizational resources in general did not moderate the impact of of strategy implementation on the performance outcomes. Consequently, the null hypothesis was not rejected.

### **6.2.3 Strategy Implementation, Operating Environment and Organizational Performance**

The third objective was concerned with uncovering how the operating environment influences the strategy implementation-performance link among Kenya owned SCs. The operating environment was broken down into three sub-constructs; dynamism, complexity and political goodwill and support. The descriptive findings showed that the Corporations operate in a setting marked by a fair level of political goodwill and support and high dynamism as well as complexity. In reference to this objective, it was hypothesized that the operating environment does not significantly moderate the strategy implementation-performance relationship. Accordingly, a hierarchical regression procedure was used to test the proposition.

The potential moderating effects of each dimension underlying operating environment was explored first. Out of the three dimensions, only environmental complexity was found to significantly moderate the strategy implementation-performance linkage. However, it also emerged that the operating environment as a whole did not have a moderating effect. As a result, the hypothesis was not rejected.

### **6.2.4 Strategy Implementation, Organizational Resources, Operating Environment and Organizational Performance**

The last objective was concerned with how strategy implementation, organizational resources and the operating environment combine to drive performance of Kenya owned SCs. A hypothesis was formulated that proposed that the joint influence of the three independent variables does not exceed the sum total impact when the variables function separately.

The evaluation of this proposition was made possible by application of both simple and multiple linear regression models. The findings showed that in isolation, the three independent variables accounted for a sum total of 83.4% variation in performance. On the hand, when acting jointly, the variables explained 51.7% of variability in performance. This suggested that the combined or joint effect of the three predictors was considerably less than the cumulative impact of the variables when functioning separately. The hypothesis was thus not rejected.

### **6.3 Conclusion**

The study concludes that strategies formulated by SCs are implemented extensively. The strategies are implemented in a manner that emphasizes the alignment of all functional areas within an organization with the selected strategy. In turn, this effective implementation gives the Corporations an advantage that leads to improvements in organizational performance. The results confirmed the beneficial role of strategy implementation. This finding was well grounded in the Dynamic Capabilities Theory and Institutional Theory. Additionally, the finding was corroborated by numerous other studies (Law et al., 2015; Njoroge et al., 2015; Waweru, 2011).

The second conclusion drawn relates to organizational resources of Kenya owned SCs. These resources exert no significant moderation effects on the strategy implementation-performance link. In other words, endowment with organizational resources does not impact on the strategy implementation process.

This finding goes contrary to what is predicted by the RBV and the results of previous studies (Gaur et al., 2011; Ipek & Tanyeri, 2020; Osoro, 2013). The strategy implementation-performance link is shaped by one specific aspect of the operating environment; complexity. Highly complex environments reduce the positive effect of strategy implementation while low complex contexts buffer the effect.

However, the environment in general, taking into consideration other dimensions, does not shape the effect of strategy implementation. This finding contradicts the predictions of the DCT despite showing consistency with a few studies (Atinc & Ocal, 2014; Gurra, 2018). A combination of strategy implementation, organizational resources and operating environment can be used to drive organizational performance. However, the findings implied that a combination these variables may not effectively impact on performance of Kenya owned SCs.

This finding conflicted with the Institutional Theory that anchored the study. However, it is possible that a configuration approach would be best suited in maximizing the synergistic effect of strategic implementation, organizational resources and operating environment. The configuration approach is a broad framework linking strategy and environmental congruence. It conceptualizes an organization as a system comprising strategy, people, structures and management processes (Snow, Miles & Miles, 2006). In this approach, organizational performance is viewed as dependent not only on the internal alignment of its components but also on the external fit between the organization and its environment.

Given that the process of achieving this organizational alignment is dynamic, Snow, Miles and Miles (2006) emphasize on the need for continuous monitoring and adjustment of organizational internal and external environment in order to attain it

#### **6.4 Implications of the Study**

In this study, the role of strategy implementation, organizational resources and operating environment in shaping performance of Kenya owned SCs was explored. It emerged that improvements in performance outcomes of these Corporations could be attributed to the extent to which implementation of strategies took place. It also emerged that organizational resources and the operating environment exhibit no significant moderation effect on the impact of strategy implementation on performance. This section discusses the implications stemming from these findings in regard to theory, methodology, policy and managerial practice.

##### **6.4.1 Theoretical Implications**

The current study was founded on several theoretical frameworks including the Institutional theory, RBV, DCT and the NPM theory. The claims and assumptions of these theories formed the basis for hypothesizing the relationships between and among the variables of interest. In this regard, the outcomes yielded from testing the hypotheses served to either invalidate or falsify the theories. Varying degrees of relationships involving the study variables were reported, most of which were found to be statistically insignificant.

Bearing in mind that the falsification of a theory necessitates the findings of an inquiry to possess statistical adequacy, it was thus not practicable to derive explicit theoretical implications from the findings. Nonetheless, the findings lead to interpretations that are indicative of theoretical implications. It was established that strategy implementation positively and significantly influences the performance of SCs. To this end the finding lent credence to the postulations of Institutional theory, DCT and NPM theory.

The study also found that organizational resources did not moderate the relationship between strategy implementation and organizational performance. However, significant direct effects of tangible and intangible resources were observed. This signifies that tangible and intangible resources are still critical in driving organizational performance. In this regard, the findings offer support to the RBV whose major emphasis is on how endowment with strategic resources could lead to better performance outcomes.

The study had proposed that the operating environment moderates the strategy implementation- organizational performance relationship. It was found that only the complexity dimension exhibited a moderating effect. To this extent, the finding supports the postulations of the DCT that emphasizes on how organizations could achieve better performance by developing mechanisms to leverage from the complexities of their environment. The results further showed that operating environment in general did not transmit a moderating effect to the strategy implementation-organizational performance link. The finding thus offers a basis for furthering the frontiers of knowledge in the exploration of other potential moderators of strategy implementation effects other than the operating environment and organizational resources.



#### **6.4.2 Methodological Implications**

The present study followed a cross-sectional research design grounded on positivism. This method provided for collection of suitable quantitative data as well as formulation and testing of the study's hypotheses. To this end, the study demonstrated that the design is tenable in a positivist philosophical grounding. Therefore, the approach is suitable for further research on the effects of strategy implementation on organizational performance.

The collection of data that allowed for meaningful insights to be generated in this study was made possible by the utilization of a questionnaire. Prior to its use, the questionnaire was subjected to thorough reliability and validity assessments. The testing ascertained that the scales applied in the questionnaire were reliable and valid. The questionnaire is thus well suited to measure strategy implementation, organizational resources and performance. Future researchers can adopt or modify the scales of the questionnaire to measure the variables in similar or different contexts.

The testing of this study's hypotheses was achieved through linear regression analysis. Prior to the use of this technique, a number of tests were performed on the dataset to confirm its suitability for the application of the regression technique. The regression analysis permitted the assessment and interpretation of the inter-relationships among the variables of interest including direct, moderating and joint effects. It is therefore apparent that regression analysis is applicable in assessing the relationship between strategy implementation, organizational resources, operating environment and performance. Future researchers focusing on a similar area may find it beneficial to use this analytical model.

### **6.4.3 Implications for Managerial Practice**

The study established that strategy implementation has a positive and significant effect on the performance of Kenya owned SCs. The institutionalization aspect of the implementation process was found to be particularly impactful. This implies that managers ought to recognize the need for the entire organization to be aware of the overall strategy and its implications so as to realize better performance. The strategy must be cascaded down to all functional areas through effective communication and dissemination so that operational plans can be designed.

The finding also implies that managers need to ensure reconfiguration of the structure and culture of the organization in a manner that promotes successful outcomes. It is possible that the structure and organizational culture may not favour the strategic changes the organization is seeking to actualize. In such cases, it is important for managers to initiate changes geared towards development of an open culture that encourages and incentivizes employee ideas. Open communication is bound to go a long way to ensure that the staff understand the details of a strategy.

In order to successfully implement strategies, managers must recognize the changes that are needed. The managers must have a grasp of these organizational changes so as to design the necessary structural changes for supporting the strategy implementation process. Even so, the managers must expect, recognize and be ready to resolve the challenges that may surface as a reaction to the structural changes.

The moderating effect of environmental complexity was confirmed in his study. Strategy implementation was positively related to organizational performance, with environmental complexity moderating this positive effect. Strategy implementation was associated with low performance where complexity was high. These findings confirm the salience of environmental complexity. The findings suggest that SCs seeking to offer high quality services to a diverse population should devote more time and resources to finding new ways of carrying out their activities and of anticipating the needs of the population. The Corporations could scan for new ideas about service provision by approaching the people at multiple levels. This would facilitate better understanding of customer needs and expectations that appear to play an important role in the success of the Corporations' strategy implementation.

#### **6.4.4 Implications for Policy**

Kenya owned SCs are regulated by a variety of legal and policy frameworks. The State Corporations Advisory Committee works alongside the respective ministries and regulatory Agencies to oversee formulation and implementation of policies. One such policy document referred to as "Mwongozo" aims at ensuring that SCs operate efficiently through well articulated strategies so that they can ensure value for money.

The spirit of this policy framework is to ensure that the SCs are self sustaining and support economic development, rather than over relying on the exchequer. Over the years, the government has undertaken reforms, albeit gradually, geared at making SCs more efficient and productive by effecting mergers so as to minimize overlaps and duplication of functions.

The government has also been keen on strategic planning and performance contracting in SCs, a measure aimed at enhancing performance. The findings yielded in this inquiry provide clear evidence on the vital role of strategy implementation on organizational performance. This may advise on the need for policy thrust to shift more to strategy implementation over and above strategic planning by putting in place measures to monitor and evaluate implementation.

### **6.5 Contributions to Knowledge**

This study affirms the importance of strategy implementation as a vital element of successful organizations. While framing a well conceived strategy is important, it is in its implementation that an organization realizes the desired performance outcomes. The failure of organizations to adequately implement their strategies are well documented in the extant literature. The findings of this study provided support for the argument that deployment of proper strategy implementation practices will boost organizational performance. In this regard, the study makes a significant contribution to the wider debate concerning strategy implementation and organizational performance.

The study, through empirical analysis, examined the influence that strategy implementation, organizational resources and operating environment have on performance. Most of the existing studies have focused on the effect of strategy implementation, organizational resources and operating environment separately. By assessing the joint effect, this study makes an important contribution to the existing knowledge by highlighting the effect of the potential derived synergy on performance outcomes.

While some studies suggest that organizational resources and the operating environment moderate the impact of strategy implementation on performance, others have found that such moderating effect does not exist.

This study contributes to the extant debate by showing that neither organizational resources nor operating environment make demonstrative difference to the link between strategy implementation and performance. In addition, the study's original contribution is in terms of the setting-Kenya Owned SCs. The study has further made contribution to the existing body of knowledge by developing a survey instrument that is suitable for measuring strategy implementation, organizational resources, operating environment and organizational performance constructs particularly in the context of State owned Corporations. The survey instrument could be upgraded further by testing more statements within the identified sub-constructs or by adding more sub-constructs. The instrument could be further customized to cater for the context of private organizations.

### **6.6 Limitations of the Study**

The central objective of this study was to determine how strategy implementation in conjunction with organizational resources and the operating environment impact on the performance outcomes of Kenyan owned SCs. It was found that when acting jointly, the independent variables explain only 51.7% of variability in the performance of the Corporations. The remainder (48.3%) is accounted for by other factors that were not considered in this inquiry. Additionally, the study focused solely on the moderation effects of organizational resources and the operating environment on the strategy implementation-performance relationship. It is possible that there could be moderation effects by other factors not taken into account in this study.

In terms of methodology, a cross-sectional survey design was utilized. The design was ideal for this study as it is associated with few time and financial impediments. However, cross-section survey designs are not robust enough to facilitate drawing of causal inferences. For this reason, the underlying mechanisms through which strategy implementation, organizational resources and operating environment affect performance could not be sufficiently established.

The context of this study was limited to Kenya owned SCs, thus Corporations owned by private entities were not considered. The private owned companies may be faced with challenges that are different from those faced by SCs. As such, the findings of this study may not be generalizable to fit the setting of private-owned companies.

### **6.7 Suggestions for Further Research**

Strategy implementation, organizational resources and operating environment explained 51.7% of variability in performance. The remaining proportion of variance was accounted by other factors not covered in the present study. Therefore, future researchers should consider exploring the effect of other factors on organizational performance.

In addition, researchers should assess the potential moderation and mediation influences of other factors on the strategy implementation-performance link. The research design utilized in this study was limited in uncovering the causal effects among the variables of interest. Future researchers should thus consider replicating the present study using longitudinal research design. A longitudinal research design would offer comprehensive insights into the underlying mechanisms by which strategy implementation, organizational resources and operating environment affect performance.

The study focused strictly on SCs, which substantially diminishes the generalizability of the findings to other contexts. Future researchers should consider replicating the present study in private companies. This would add to the existing knowledge by offering a comprehensive portrayal of the relationship between strategy implementation, organizational resources and performance of organizations in the Kenyan private and public sectors.

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## **APPENDICES**

### **Appendix I: Letter of Introduction**

Robert K.G. Ndegwa

University of Nairobi

School of Business

P.O. Box 4702-00200

NAIROBI

Email: bobken70@yahoo.com

0722332375

### **To whom it may concern**

Dear Sir/madam,

### **ACADEMIC RESEARCH DATA**

I am a student at the University of Nairobi currently undertaking a Doctor of Philosophy (PhD) at the School of Business, Department of Business Administration. I intend to carry out a research on “Influence of strategy implementation on performance of Kenya owned SCs”.

I am therefore requesting your participation in this study that examines strategy implementation, organizational resources, and operating environment on performance of Kenya owned SCs. The target respondents are the officers in charge of planning and finance in the institution. Kindly answer the questions in the attached questionnaire completely and honestly. Your responses will be accorded confidentiality and the outcome of the research will be solely for academic purpose.

Yours Sincerely

**Robert K. G. Ndegwa**

Doctoral Student

**Appendix II: Research Questionnaire**

**Dear Respondent,**

This research instrument is designed to obtain data from Kenya owned SCs on strategy implementation, organizational resources, operating environment and performance. The data will be used precisely for academic purpose and your responses will be treated with utmost confidentiality.

**SECTION I: ORGANIZATIONAL PROFILE**

NAME OF ORGANIZATION (OPTIONAL) .....

ADDRESS AND LOCATION .....

1. Parent Ministry .....

2. When was the corporation established (indicate year) .....

3. What is the Core function of your corporation (Tick appropriately)

- Commercial { }
- Industry regulator { }
- Both Commercial and regulatory { }
- Other (Please specify below)

4. Please indicate the following details:

(Tick appropriately)

(a) Number of employees

Up to 200

Between 401 and 600

Between 201 and 400

601 and above

(b) Annual budget controlled (in billion KES)

Up to 2 billion

Over 2 billion and up to 10 billion

Over 10 billion and up to 50 billion

Above 50 billion

## SECTION II: STRATEGY IMPLEMENTATION

### 5. Operationalization

Indicate the extent to which each of the following statements applies to strategy implementation in your organization. Use the key below and tick as appropriate.

**Key:** 1= Negligible      2= Minimal extent      3= Moderate extent      4= Large extent  
5= Very Large extent

<b>Strategy Implementation</b>	1	2	3	4	5
Documented policies detailing expectation and the resulting impact of strategy implementation exist.					
The organization's strategic plan is broken down into work plans, complete with time lines and responsible officers.					
Every division has its key performance indicators well defined.					
Achievement of key performance indicators are used as means of performance improvement.					
Net performance is obtained by summing more than one of the team's key performance indicators					
The firm has integrated Information and Communication systems that support strategy implementation.					

### 6. Institutionalization

Indicate the extent to which each of the following statements applies to strategy implementation in your organization. Use the key below and tick as appropriate.

**Key:** 1= Negligible      2= Minimal extent      3= Moderate extent      4= Large extent  
5= Very Large extent

<b>Strategy Implementation</b>	1	2	3	4	5
The organization systems review and redesign whenever these are major changes in strategy.					
The Organization lays emphasis on the need for staff to embrace and operate within the set core values.					
The overall organization structure is reviewed to be in line with strategy implementation.					

The structure of the organization allows free flow of information throughout the organization and between other stakeholders.					
The structure allows proper coordination within the organization.					
Strategy implementation is cascaded at all levels of the organization.					
Hierarchies and reporting lines are amended to ensure effective strategy implementation.					
The existing systems are flexible as to accommodate any changes during strategy implementation.					
The existing systems are harmonized with those of our key strategic partners to enhance implementation of our strategy.					
Success in strategy implementation is measured at all levels of the organization.					
Staff are given leeway to explore new ways of strategy implementation.					
The leadership styles exhibited by the top management in strategy implementation accommodate varying ideas.					
The organization engages in team building activities to encourage collective responsibility.					
The organization rewards creativity and innovativeness during strategy implementation.					
Rewards are used to enhance strategy implementation.					

Please make remarks on any other issues regarding strategy implementation in your organization.

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### SECTION III: ORGANIZATIONAL RESOURCES

#### 7. Tangible resources

Please specify to what extent the following tangible resources are available in your organization. Use the key below and tick as appropriate.

**Key:** 1= Negligible      2= Minimal extent      3= Moderate extent      4= Large extent  
5= Very Large extent

No.	Organizational Resource Measures	1	2	3	4	5
1.	The organization has adequate funds to support its operations.					
2.	The organization has adequate and qualified employees to perform its functions.					
3.	The organization has adequate office equipment					
4.	The organization has alternative sources of funding over and above government allocation.					
5.	The organization has sufficient deposits in banks.					

#### 8. Intangible resources

Please specify to what extent the following intangible resources are available in the organization. Use the key below and Tick as appropriate.

**Key:** 1= Negligible      2= Minimal extent      3= Moderate extent      4= Large extent  
5= Very Large extent

No.	Organizational Resource Measures	1	2	3	4	5
1.	The organization employees are skilled and experienced					
2.	The organization employees are loyal					
3.	The organization employees work as a team					
4.	The organization has put in place current technology and software to support its operations and customer service					
5.	The organization has a good reputation in the industry					
6.	The organization has a value brand in the industry					

7.	The organization possesses unique resources					
8.	The organization employees are sufficiently motivated					
9.	The organization facilitates relevant training for its employees					
10.	The relationship between employees and management is good.					
11.	The organization's management and leadership style are good.					
12.	The organization supports a culture of creativity and knowledge creation.					
13.	Employees are patriotic and supportive to the organization.					
14.	The organization possesses resources that are difficult to imitate by competitors.					

#### SECTION IV: OPERATING ENVIRONMENT

##### 9. Dynamism

Indicate the extent to which each of the following statements applies to the operating environment in your organization. Use the key below and tick as appropriate.

**Key:** 1= Negligible      2= Minimal extent      3= Moderate extent      4= Large extent  
5= Very Large extent

Statement about operating environment	1	2	3	4	5
The Organization is conversant with current status of its operating environment					
The current economic environment is threatening the achievement of the organization's objectives					
The current technological environment is facilitating the achievement of the organizations objectives.					
The current laws in Kenya have an impact on the Organization's strategy implementation.					
The current operating environment has an influence on the Organization's strategy implementation.					
There are many competing behaviours that are putting pressure on the Organization's members					
Due to environmental pressure, members of the Organization abandon some positive courses of action.					

### 10. Complexity

To what extent do the following characteristics regarding operating environment have an influence in your State Corporation?

Use the key below and tick as appropriate.

**Key:** 1= Negligible      2= Minimal extent      3= Moderate extent      4= Large extent  
5= Very Large extent

<b>Statement about operating environment</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Fluctuations in political regime in the country.					
Fluctuations in interest rates.					
Fluctuations in exchange rates.					
Changes in technology.					
Changes in taxation regime.					
Fear by top management to face uncertainty in good time.					
Legal framework touching on the mandate of your organization.					
Population growth					
Changes in policy guidelines governing SCs.					
Informed stakeholders and interested parties.					

### 11. Political Good will and support

To What extent does each of the following statements apply to the political environment and in which your State Corporation operates?

Use the key below and tick as appropriate.

**Key:** 1= Negligible      2= Minimal extent      3= Moderate extent      4= Large extent  
5= Very Large extent

<b>Statement about operating environment</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
The Chief Executive Officers must consult with the Ministry before making important decisions on behalf of the corporation.					
Most of the Senior Management Officers in this Corporation are either appointed or seconded by more Senior Government Officers within the Ministry.					



All strategic decisions taken by the board of directors of this corporation must always take into consideration the opinion of the Cabinet Secretary in the Parent Ministry.					
All decisions by the board must be approved by the Ministry.					
The Ministry closely monitors all key processes of strategy implementation in the corporation.					
The corporation faces difficulties in the implementation of its strategies due to insufficient allocation of funds from the Parent Ministry.					
Sometimes important decisions are made at the Ministry level and the board and top management only ensure that they are implemented whole.					
The chief executive, the board and top management of this corporation operate entirely independently from any influence from any quarter whatsoever.					

## **PART V: ORGANIZATIONAL PERFORMANCE**

### **12. Financial Performance**

Indicate the extent to which each of the following statements applies to the performance of your State Corporation. Use the key below and tick as appropriate.

**Key:** 1= Negligible      2= Minimal extent      3= Moderate extent      4= Large extent  
5= Very Large extent

<b>Descriptions and characteristics</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
The State Corporation has wide sources of funds including new players from development partners and the private sector					
The amount of resources mobilized from development partners and the private sector have increased over the last five years					
The State Corporation has sustainable financial resources for continuity of programmes even with the exit of key donors.					
The State Corporation generates revenue from Appropriations in Aid					
The State Corporation has surplus financial resources to cater for economically depressed periods.					

The State Corporation efficiently absorbs funds allocated by GOK.					
The State Corporation efficiently absorbs externally mobilized funds.					
The State Corporation's revenue exceed expenses.					
The State Corporation's assets outweigh it's liabilities.					
The State Corporation carries out monitoring and evaluation of finance, capital assets and depreciation on a regular basis					
The State Corporation promptly dispenses with pending bills					

## 12. Process efficiency

Indicate the extent to which each of the following statements applies to the operations of your organization. Use the key below and tick as appropriate.

**Key:** 1= Negligible      2= Minimal extent      3= Moderate extent      4= Large extent  
5= Very Large extent

<b>Descriptions and characteristics</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
The organization utilizes staff members optimally.					
The organization makes maximum use of its facilities such as buildings and equipment.					
The organization makes optimal use of its financial resources.					
The organization has efficient operations and administrative framework to ensure efficient service delivery.					
The organization builds on past performance to enhance improvement.					
The organization's programmes are evaluated on the basis of the cost.					
The organization delivers its services and products promptly without any delay.					
The organization ensures proper maintenance of equipment to ensure efficient service delivery.					
The organization is able to achieves its objectives on schedule.					
The organization controls overhead costs					

## 13. Relevance

Indicate the extent to which each of the following statements applies to the operations of your organization. Use the key below and tick as appropriate.

**Key:** 1= Negligible      2= Minimal extent      3= Moderate extent      4= Large extent  
5= Very Large extent

<b>Descriptions and characteristics</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
The organization constantly reviews its programmes as dictated by the prevailing environment.					
The organization constantly reviews its programmes based on its capacity in terms of infrastructure and human resource.					
Beneficiary-needs assessments are conducted regularly					
The organization regularly adjusts the services that it offers in response to customer needs.					
Services offered by organization are constantly reviewed to reflect changing client type.					
The organization constantly scans the environment as a basis for strategy review.					
The organization's partners have changed their attitude towards the organization from negative to positive.					
There has been increased number of new funders to the organization over the last five years					
The old funders are continually willing to support the initiatives of the organization.					
The organization adequately balances stakeholders' demands					

14. Write down your general comments on the strategy implementation process and performance of your organization.

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**Thank you and God bless you.**

### **Appendix III: List of Kenya Owned SCs**

#### **Ministry of Interior & Coordination of National Government**

- 1) National Authority for the Campaign Against Alcohol and Drug Abuse
- 2) Kenya Citizens and Foreign Nationals Management Service
- 3) NGO Co-ordination Board
- 4) Betting Control and Licensing Board
- 5) Kenya Space Agency

#### **Ministry of Devolution & Arid and Semi-Arid Lands**

- 1) National Drought Management Authority

#### **Ministry of Water & Sanitation**

- 1) Athi Water Works Development Agency
- 2) Cost Water Works Development Agency
- 3) Tanathi Water Works Development Agency
- 4) Kenya Water Institute
- 5) Kenya Water Towers Agency
- 6) Lake Victoria North Water Works Development Agency
- 7) Lake Victoria South Water Works Development Agency
- 8) National Water Harvesting Authority
- 9) Northern Water Works Development Agency
- 10) Rift Valley Water Works Development Agency
- 11) Tana Water Works Development Agency
- 12) Water Resources Authority
- 13) Water Sector Trust Fund
- 14) Water Services Regulatory Board
- 15)

#### **Ministry of East African Community and Regional Development**

- 1) Civil Aviation Safety and Security Oversight Agency
- 2) Coast Development Authority
- 3) Ewaso Nyiro South Development Authority
- 4) Ewaso Nyiro North Development Authority
- 5) Kerio Valley Development Authority

- 6) Tana and Athi Rivers Development Authority

### **Ministry of Tourism and Wildlife**

- 1) Tourism Fund
- 2) Bomas of Kenya
- 3) Export Promotion Council (EPC)
- 4) Kenya National Trading Corporation Limited
- 5) Kenya Tourist Board
- 6) Kenya Utalii College
- 7) Kenyatta International Convention Centre
- 8) Tourism Regulatory Authority
- 9) Tourism Research Institute
- 10) Kenya Wildlife Services
- 11) Kenya Wildlife Research and Training Institute
- 12) Tourism Finance Corporation
- 13) Brand Kenya

### **Ministry of Labour and Social Protection**

- 1) National Social Security Fund
- 2) National Council for Persons with Disabilities
- 3) National Industrial Training Authority
- 4) National Employment Authority
- 5) Kenya National Labour Board and Wages Council
- 6) Child Welfare Society
- 7) National Council for Persons with Disabilities
- 8) National Council for Children's Services
- 9) National Productivity and Competitive Centre

### **State Law Office and Department of Justice**

- 1) Council of Legal Education
- 2) Kenya Copyright Board
- 3) Kenya Law Reform Commission
- 4) Kenya School of Law
- 5) Nairobi Centre for International Arbitration
- 6) National Council for Law Reporting
- 7) National Crime Research Center

### **Ministry of Education, Universities, Colleges and Tertiary Institutions**

- 1) Chuka University
- 2) Egerton University
- 3) Jaramogi Oginga Odinga University of Science and Technology
- 4) Kirinyaga University
- 5) Masinde Muliro University of Science and Technology
- 6) University of Nairobi
- 7) Technical University of Kenya
- 8) Multi-Media University of Kenya
- 9) South Eastern Kenya University – SEKU
- 10) Maasai Mara University
- 11) Murang'a University
- 12) Cooperative University of Kenya
- 13) University of Embu
- 14) Jomo Kenyatta University of Agriculture and Technology
- 15) Kenyatta University
- 16) Kisii University
- 17) Machakos University
- 18) Meru University of Science and Technology
- 19) Pwani University
- 20) Taita Taveta University
- 21) University of Eldoret

- 22) Dedan Kimathi University of Science and Technology
- 23) Garissa University
- 24) Karatina University
- 25) Laikipia University
- 26) Kibabii University
- 27) Maseno University
- 28) Moi University
- 29) Rongo University
- 30) Technical University of Mombasa
- 31) University of Kabianga
- 32) Kaimosi Friends University College
- 33) Gatundu University College
- 34) Bomet University College
- 35) Tom Mboya University College
- 36) Koitalel Arap Samoei University College
- 37) Alupe University College
- 38) University of Nairobi Enterprises
- 39) Technical and Vocational Education and Training Authority
- 40) Kenya National Qualifications Authority
- 41) Kenya National Innovation Agency
- 42) Higher Education Loans Board
- 43) National Research Fund
- 44) National Commission for Science, Technology and Innovation
- 45) School Equipment Production Unit
- 46) Technical and Vocational Education Training Authority
- 47) Commission for University Education
- 48) Jomo Kenyatta Foundation
- 49) Kenya Institute Of Curriculum Development
- 50) Kenya Literature Bureau
- 51) Kenya National Commission for UNESCO
- 52) Kenya National Examinations Council

53) Kenya Universities and Colleges Central Placement Services

**Ministry of Health**

- 1) Kenya Medical Laboratory Technician and Technologists Board
- 2) Kenya Medical Research Institute (KEMRI)
- 3) Kenya Medical Supplies Authority (KEMSA)
- 4) Kenya Medical Training College
- 5) Kenyatta National Hospital
- 6) Moi Teaching and Referral Hospital
- 7) National Hospital Insurance Fund
- 8) National AIDS Control Council
- 9) National Quality Control Laboratories
- 10) Referral Hospitals Authority

**Ministry of Transport, Infrastructure, Housing, Urban Development and Public Works**

- 1) Kenya National Highways Authority (KENHA)
- 2) Kenya Airports Authority
- 3) Kenya Civil Aviation Authority
- 4) Kenya Ferry Services
- 5) Kenya Maritime Authority
- 6) Kenya National Shipping Line
- 7) Kenya Ports Authority
- 8) Kenya Railways Corporation
- 9) Kenya Roads Board
- 10) Kenya Rural Roads Authority
- 11) Kenya Urban Roads Authority
- 12) LAPSET Corridor Development Authority
- 13) National Transport & Safety Authority
- 14) National Corridor Transit and Transport Coordination Authority
- 15) National Construction Authority



- 16) National Building Inspectorate
- 17) National Housing Corporation
- 18) National Metropolitan Area Transport Authority

**Ministry of Agriculture, Livestock, Fisheries and Irrigation**

- 1) Agricultural Development Corporation
- 2) Agricultural, Fisheries and Food Authority
- 3) Agro-Chemical and Food Company
- 4) Bukura Agricultural College
- 5) Chemelil Sugar Company Limited
- 6) Commodity Fund
- 7) Kenya Agricultural and Livestock Research Organization
- 8) Kenya Animal Genetics Resource Center
- 9) Kenya Dairy Board
- 10) Kenya Marine & Fisheries Research Institute
- 11) Kenya Meat Commission
- 12) Kenya Plant Health Inspectorate Services
- 13) Kenya Seed Company Limited
- 14) Kenya Tsetse Trypanosomiasis Eradication Council
- 15) Kenya Veterinary Vaccine Production Institute
- 16) Miwani Sugar Company Ltd
- 17) Mohoroni Sugar Company Ltd
- 18) National Biosafety Authority
- 19) National Cereals and Produce Board
- 20) National Irrigation Board
- 21) Nyayo Tea Zones Development Corporation
- 22) Nzoia Sugar Company
- 23) South Nyanza Sugar Company Limited (SONY)
- 24) Fish Marketing Authority
- 25) Kenya Agricultural and Livestock Research Organization
- 26) Kenya Animal Genetics Resource Centre

## **National Treasury and Planning**

- 1) Agricultural Finance Corporation
- 2) Capital Markets Authority
- 3) Competition Authority
- 4) Consolidated Bank
- 5) Financial Reporting Centre
- 6) Industrial & Commercial Development Corporation
- 7) Industrial Development Bank
- 8) Insurance Regulatory Authority
- 9) Kenya Trade Network Agency
- 10) Kenya Deposits Protection Authority
- 11) Kenya National Assurance Co. (2001) Ltd
- 12) Kenya Post Office Savings Bank
- 13) Kenya Reinsurance Corporation
- 14) Kenya Revenue Authority
- 15) Local Authorities Provident Fund
- 16) Policy Holders Compensation Fund
- 17) Privatization Commission
- 18) Public Procurement Oversight Authority
- 19) Retirement Benefits Authority
- 20) Unclaimed Financial Assets Authority
- 21) National Bank of Kenya
- 22) Kenya Accountants and Secretaries Examination Board
- 23) Kenya Institute of Public Policy Research and Analysis
- 24) Kenya National Bureau of Statistics
- 25) National Coordinating Agency for Population and Development
- 26) Public Benefits Organizations Regulatory Authority
- 27) National Government Affirmative Fund
- 28) National Drought Emergency Fund
- 29) National Development Constituency Fund
- 30) National Research Fund

### **Ministry of Industry, Trade and Cooperatives**

- 1) Anti-Counterfeit Agency
- 2) East African Portland Cement Company Limited
- 3) Export Processing Zones Authority (EPZA)
- 4) Kenya Bureau of Standards
- 5) Kenya Industrial Estates Ltd
- 6) Kenya Industrial Property Institute
- 7) Kenya Industrial Research & Development Institute
- 8) Kenya Investment Authority
- 9) Kenya Leather Development Council
- 10) Kenya National Accreditation Service
- 11) New Kenya Co-operative Creameries
- 12) Numerical Machining Complex
- 13) Sacco Societies Regulatory Authority
- 14) Micro and Small Enterprises Authority
- 15) Kenya National Trading Corporation
- 16) Export Promotion Council

### **Ministry of Petroleum and Mining**

- 1) National Oil Corporation of Kenya
- 2) Kenya Pipeline Company
- 3) National Mining Corporation

### **Ministry of Energy**

- 1) Energy Regulatory Commission (ERC)
- 2) Geothermal Development Company (GDC)
- 3) Kenya Electricity Generating Company (KENGEN)
- 4) Kenya Electricity Transmission Company (KETRACO)
- 5) Kenya Nuclear Electricity Board
- 6) Kenya Power and Lighting Company Limited (KPLC)
- 7) Rural Electrification Authority (REA)

### **Ministry of Information, Communication and Technology**

- 1) Brand Kenya Board
- 2) Communications Authority of Kenya
- 3) Kenya Broadcasting Corporation
- 4) Kenya Information and Communications Technology Board
- 5) Kenya Institute of Mass Communication
- 6) Kenya Year Book Editorial Board
- 7) Konza Technopolis Development Authority
- 8) Postal Corporation of Kenya
- 9) Government Advertising Agency
- 10) Media Council of Kenya
- 11) Kenya Information and Communications Technology Authority

### **Ministry of Sports, Culture & Heritage**

- 1) Kenya Academy of Sports
- 2) Kenya Film Classification Board
- 3) Kenya Film Commission
- 4) Kenya Nation Library Service
- 5) Nation Museums of Kenya
- 6) National Youth Council
- 7) Sports Kenya
- 8) Child Welfare Society of Kenya
- 9) National Sports Fund
- 10) Kenya Anti-Doping Agency
- 11) Kenya Sports Authority
- 12) Kenya National Commission for Culture and Social Services

**Ministry of Public Service, Youth and Gender Affairs**

- 1) Kenya School of Government
- 2) Institute of Human Resource Management
- 3) Women Enterprise Fund
- 4) Affirmative Action Social Development Fund
- 5) Anti-Female Genital Mutilation Board
- 6) National Gender and Equality Commission
- 7) Kenya National Youth Council
- 8) Youth Enterprise Development Fund

Source: SCs Advisory Committee (SCAC) March (2019).

**Appendix IV : Two-factor Structure Output for the Strategy Implementation Scale**

<b>Total Variance Explained</b>							
<b>Initial Eigenvalues</b>				<b>Extraction Sums of Squared Loadings</b>			<b>Rotation Sums of Squared Loadings</b>
<b>Component</b>	<b>Total</b>	<b>% of Variance</b>	<b>Cumulative %</b>	<b>Total</b>	<b>% of Variance</b>	<b>Cumulative %</b>	<b>Total</b>
1	9.144	43.544	43.544	9.144	43.544	43.544	5.995
2	2.812	13.392	56.936	2.812	13.392	56.936	5.964
3	1.455	6.927	63.663				
4	1.428	6.80	70.663				
5	1.085	5.167	75.829				
6	0.861	4.099	79.928				
7	0.853	4.061	83.989				
8	0.648	3.087	87.076				
9	0.556	2.650	89.726				
10	0.388	1.846	91.572				
11	0.348	1.656	93.228				
12	0.332	1.579	94.807				
13	0.275	1.310	96.117				
14	0.254	1.207	97.325				
15	0.178	0.848	98.172				
16	0.149	0.711	98.883				
17	0.087	0.413	99.296				
18	0.62	0.295	99.591				
19	0.035	0.167	99.758				
20	0.029	0.14	99.899				
21	0.021	0.101	100.00				

**Appendix V : Two-factor Structure Output for the Organizational Resources Scale**

<b>Total Variance Explained</b>							
<b>Initial Eigenvalues</b>				<b>Extraction Sums of Squared Loadings</b>			<b>Rotation Sums of Squared Loadings</b>
<b>Component</b>	<b>Total</b>	<b>% of Variance</b>	<b>Cumulative %</b>	<b>Total</b>	<b>% of Variance</b>	<b>Cumulative %</b>	<b>Total</b>
1	7.287	38.353	38.353	7.287	38.353	38.353	5.325
2	2.883	15.173	53.526	2.883	15.173	53.526	4.845
3	1.674	8.810	62.336				
4	1.343	7.069	69.406				
5	1.159	6.102	75.508				
6	1.071	5.635	81.143				
7	0.676	3.557	84.700				
8	0.618	3.252	87.952				
9	0.459	2.413	90.365				
10	0.421	2.215	92.580				
11	0.343	1.805	94.385				
12	0.266	1.402	95.786				
13	0.230	1.212	96.998				
14	0.261	0.849	97.847				
15	0.143	0.754	98.601				
16	0.113	0.596	99.197				
17	0.077	0.406	99.602				
18	0.045	0.236	99.838				
19	0.031	0.162	10.000				

Extraction Method: PCA

**Appendix VI : Two-factor Structure Output for the Operating Environment Scale**

<b>Total Variance Explained</b>							
<b>Initial Eigenvalues</b>				<b>Extraction Sums of Squared Loadings</b>			<b>Rotation Sums of Squared Loadings</b>
<b>Component</b>	<b>Total</b>	<b>% of Variance</b>	<b>Cumulative %</b>	<b>Total</b>	<b>% of Variance</b>	<b>Cumulative %</b>	<b>Total</b>
1	5.823	23.293	23.293	5.823	23.293	23.293	5.076
2	3.851	15.402	38.695	3.851	15.402	38.695	4.250
3	3.234	12.972	51.668	3.243	12.972	51.668	3.591
4	1.971	7.884	59.552				
5	1.924	7.696	67.248				
6	1.391	5.563	72.811				
7	1.074	4.296	77.107				
8	1.012	4.050	81.156				
9	0.883	3.531	84.688				
10	0.727	2.909	87.597				
11	0.589	2.355	89.952				
12	0.513	2.051	92.003				
13	0.397	1.590	93.592				
14	0.332	1.330	94.922				
15	0.316	1.265	96.187				
16	0.275	1.101	97.288				
17	0.207	0.828	98.115				
18	0.159	0.635	98.750				
19	0.124	0.497	99.247				
20	0.070	0.280	99.527				
21	0.047	0.187	99.714				
22	0.031	0.125	99.839				
23	0.020	0.080	99.919				
24	0.013	0.051	99.970				
25	0.08	0.030	100.000				

Extraction Method: PCA



**Appendix VII: Two-factor Structure Output for the Performance Scale**

Total Variance Explained							
Initial Eigenvalues				Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	7.653	26.389	26.389	7.653	26.389	26.389	5.917
2	5.493	18.941	45.330	5.493	18.941	45.330	5.864
3	3.693	12.734	58.065	3.693	12.734	58.065	5.058
4	2.060	7.105	65.169				
5	1.486	5.124	70.294				
6	1.299	4.479	74.772				
7	1.018	3.509	78.281				
8	0.894	3.081	81.363				
9	0.810	2.793	84.156				
10	0.692	2.388	86.543				
11	0.592	2.042	88.585				
12	0.520	1.792	90.377				
13	0.496	1.711	92.088				
14	0.445	1.536	93.624				
15	0.387	1.334	94.958				
16	0.295	1.018	95.976				
17	0.283	0.974	96.950				
18	0.239	0.825	97.775				
19	0.168	0.581	98.356				
7	1.074	4.296	77.107				
8	1.012	4.050	81.156				
9	0.883	3.531	84.688				
10	0.727	2.909	87.597				
11	0.589	2.355	89.952				
12	0.513	2.051	92.003				
13	0.397	1.590	93.592				
14	0.332	1.330	94.922				
15	0.316	1.265	96.187				
16	0.275	1.101	97.288				
17	0.207	0.828	98.115				
18	0.159	0.635	98.750				
19	0.124	0.497	99.247				
20	0.070	0.280	99.527				
21	0.047	0.187	99.714				
22	0.031	0.125	99.839				
23	0.020	0.080	99.919				
24	0.013	0.051	99.970				
25	0.08	0.030	100.000				
26	0.018	0.061	99.960				
27	0.009	0.032	99.992				
28	0.002	0.007	99.998				
29	0.000	0.002	100.000				

Extraction Method: PCA

**Appendix VIII: Regression Output (Individual and Joint Effect)**  
**Strategy Implementation and Performance**

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.602 <sup>a</sup>	.362	.358	.42119

a. Predictors: (Constant), SI\_Index

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	18.022	1	18.022	101.590	.000 <sup>b</sup>
	Residual	31.754	179	.177		
	Total	49.776	180			

a. Dependent Variable: OP\_Index

b. Predictors: (Constant), SI\_Index

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.096	.238		4.609	.000
	SI_Index	.569	.056	.602	10.079	.000

a. Dependent Variable: OP\_Index

## Organizational Resources and Performance

### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.684 <sup>a</sup>	.468	.465	.38461

a. Predictors: (Constant), OR\_Index

### ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	23.297	1	23.297	157.486	.000 <sup>b</sup>
	Residual	26.479	179	.148		
	Total	49.776	180			

a. Dependent Variable: OP\_Index

b. Predictors: (Constant), OR\_Index

### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.229	.181		6.794	.000
	OR_Index	.637	.051	.684	12.549	.000

a. Dependent Variable: OP\_Index

## Operating Environment and Performance

### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.063 <sup>a</sup>	.004	-.002	.52628

a. Predictors: (Constant), OE\_Index

### ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.197	1	.197	.712	.400 <sup>b</sup>
	Residual	49.579	179	.277		
	Total	49.776	180			

a. Dependent Variable: OP\_Index

b. Predictors: (Constant), OE\_Index

### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.719	.296		12.585	.000
	OE_Index	-.072	.086	-.063	-.844	.400

a. Dependent Variable: OP\_Index

**Joint Effect of Strategy Implementation, Organizational Resources and Operating Environment on Performance**

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.719 <sup>a</sup>	.517	.509	.36838

a. Predictors: (Constant), OE\_Index, SI\_Index, OR\_Index

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	25.756	3	8.585	63.265	.000 <sup>b</sup>
	Residual	24.020	177	.136		
	Total	49.776	180			

a. Dependent Variable: OP\_Index

b. Predictors: (Constant), OE\_Index, SI\_Index, OR\_Index

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.821	.299		2.750	.007
	SI_Index	.271	.064	.287	4.253	.000
	OR_Index	.466	.063	.501	7.392	.000
	OE_Index	-.037	.061	-.032	-.604	.547

a. Dependent Variable: OP\_Index

## Appendix IX: NACOSTI License

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