EFFECT OF OPERATIONS STRATEGY ON THE PERFORMANCE OF STATE CORPORATIONS IN KENYA

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DECLARATION

I declare that this research proposal is my original and has not in its entirety or in part been presented to this or any other university.

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

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This research proposal has been presented with my approval as the university supervisor

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ACKNOWLEDGEMENT

I give glory to the Lord for it's not by might, nor by power but by the spirit of the Lord.

I would like to take this opportunity to extend my gratitude to my supervisor, Dr. Stephen Odock for his guidance. I remain greatly indebted to his invaluable input without which this paper would not have attained its authenticity.

DEDICATION

I dedicate this research to my Husband, Children, Parents, Siblings, Nieces and Nephews.

ABSTRACT

In the competitive market both public and private organizations are required to perform excellently in their operations so as to increase their output. The research sought to establish the operations strategy adopted by state corporations and to determine the effect of operations strategy on performance of Kenyan State corporations.
The predictor variables that represented operations strategy include service quality, delivery performance, operational flexibility and cost containment. The research employed a cross-sectional research design on a population size of 168. Primary data collection was done through structured questionnaires.
Outcomes with regard to the service quality dimension showed that the firms had documented service charter and agreements that guide their relationship with external partners. To increase organization flexibility, the firms had adopted technology in their operations to cope with the changing needs. In service delivery, the findings showed that firms document time lines of service delivery. In cost containment the findings indicated budget provision in a particular period with regard to expenditure was being observed.
The findings also suggest existence of a positive relationship amongst operations strategy and performance of an organization. ($r=0.525$) and that 27.6% variations in performance of the organization is accounted for through variation in the operations strategy. The regression values show that operational flexibility and delivery performance had significant results on the performance of an organization. The p-values were 0.032 and 0.000 respectively. This research concludes that operational strategy affects organizational performance and therefore firms should pursue this strategy because out of these operational activities the firm is able to deliver services.

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ABBREVIATIONS AND ACRONYMS

ATP	-	Annual Training Needs
BCM	-	Business Continuity Management
BSC	-	Balance Score Card

ERM	-	Enterprise Risk Management
I.T	-	Information Technology
OP	-	Organization Performance
PC	-	Performance Contract
ORGN.	-	Organization
OS	-	Operations Strategy
RBV	-	Resource Based View
ROI	-	Return on Investments
SLA	-	Service Level Agreement
TC	-	Transaction Cost

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

As a result of increased competition globally both private and public organizations have witnessed increased pressure to attain quality operations and consequently increase performance. Brown, Bessant and Lamming (2013) assert that one of the critical internal resources that an organization can utilize to gain the requisite organizational performance is formulating and adopting appropriate strategies that differentiate their product or service offerings from competitors. Porter (1980) argues that organizations that have precise strategy like operations strategy are able to outdo the ones without resulting in higher performance. Operations strategy defends the competitive position of a firm hence its key place in improving a firm's performance (Stevenson, 2017).

This research is based on three theories namely; RBV, Institutional theory (IT) and Porters' competitive advantage theory. Barney (1991) advanced the RBV theory and acknowledged that an organisation consists of distinct types of resources that are heterogeneously dispersed across the organisation. The resources change over time and if effectively combined and utilized they improve a firm's profitability. Institutional Theory was advanced by Scott's (2004) who asserts that local organizational activities are created as a result of rationalized organizational evaluation and should alter in line with consumer demands. Porter's (1980) competitive advantage theory advances that an organization output at a marketplace and the market as a whole is based on the industrial physiognomy of the company. According to Porter, there are four drives to the firms' competitiveness namely; related industries, industries, demand, factor, firm rivalry together with strategy and structure (Porter, 2008). A firm's ability to take advantage of the drives that govern competition will determine its performance.

State corporations in Kenya, like other organizations, face increasing demands from their customers and the quest to offer improved service and product quality is no longer a luxury but a necessity. They therefore need to come up with an operations strategy that will reduce wastage/costs, improve product/service quality, improve operations flexibility and improve delivery speed. Implementation of an effective operations strategy is costly and it is therefore fair to establish operations strategy effect on State Corporation's performance.

1.1.1 Operations Strategy

It has various definitions and Slack and Lewis (2011) considers it as a set of choices a firm makes to identify the activities and abilities present in order to achieve the organizational goals. They further explain that the commonly agreed dimensions of a firm's operations strategy that need to be adapted continously are; service or product quality, flexibility, delivery performance and low cost .

Chase (2009) defines an organization's O.S as constituting policy and planning decisions that best utilize a firm's production resources to up its competitive strategy in the long-term. Similarly, Hayes (2004) opines that O.S constitutes the set of decisions that a firm makes in regard to its resources and available operational capabilities to realize set organizational goals.

Implementation of an appropriate operations strategy in an organization is associated with diverse benefits. According to Analoui (2002) O.S ensures that employees are well trained and customer service areas are friendly and safe. Similarly, James and Ventus (2011) highlight that an effective O.S is associated with development of a firm's internal core competencies, improved products, innovation of new products, improved flexibility of its operations, improved change strategy process as well as effective capital investment decisions. However, Slack (2010) suggests that success in a firm's O.S can better be realised through the understanding of customer needs and expectation and how the market changes towards meeting the customer needs.

Different authors have detailed different measures or indicators of a firm's strategy of operating. Popular strategy operations measures as per Seng, Jentan and Ramayah (2012) is the measure identified by Heizer and Render (2009) who suggest that a firm's operations strategy involves designing a product and service, designing capacity and process, quality management, human resource and work planning, basic commodity and just-in-time processes; and proper selection of location. Furthermore, Amoako-gyampah and Boye (2001) suggest that a firm's operations strategy can be measured on four performance indicators namely firm product or service quality, flexibility of the firm's operations, effective delivery process and cost containment This study will adopt Boye's (2001) measures of operations strategy that is limited to product or service quality, flexibility of the firm operations, delivery performance and cost containment.

1.1.2 Organizational Performance

Borman and Schmit (2015) describe organizational performance as a multidimensional paradigm on which measurement of several factors is based. Aguinis and Kraiger (2012) define O.P as the degree to which an organization attains its mission, vision and objectives in terms of quality service, customer satisfaction and increased profits. Sanz-Valle, Jiménez-Jiménez and Naranjo-Valencia (2016) grouped organizational performance into the following categories; business performance, financial performance and organizational effectiveness. Koontz and Donnell (2010) define O.P as the ability of a firm to realize huge profit, increased share in the market, new product development, better monetary returns and long-term sustainability. Moullin (2007) similarly asserts that O.P is the means through which a firm provides value to its stakeholders

Various methods are used in measuring the efficiency or performance of a company. Carton (2004) states that a firm's positive result can be judged through its significance to stockholders. Multiple performance measures have been used in past studies. In order to assess company achievement Lumpkin and Dess (1996) used revenue growth, market share, profitability and general results. Mokhtar et al. (2014) adopted four measures of performance; client maintenance, new brand achievement, marketing development and return on assets. BSC performance measure was used, this measure put forward through Kaplan and Norton (1992). BSC is an instrument measuring performance and its main objective is effective operations. The BSC parameters are internal processes, customer focus, learning and development and financial perspective. BSC is relevant to state corporations as it assumes and rightfully so that the performance of a firm should be evaluated based on non-financial measures as well.

1.1.3 Operations Strategy and Organization Performance

An organization's O.P defines how a firm's day to day activities are undertaken with a view of improving performance and meeting organizational goals. Brown et al. (2013) asserts that an organization's O.P should answer the fundamental business questions such as whether to diversify or not; the customer segment to deal with, whether to focus on low cost production or focus on differentiation and how to respond to customers' ever changing preferences. Hitt, Ireland and Hoskisson (2011) observe that the implementation of an organization's O.P should be able to monitor the progress of its activities to gauge the results against the objects of an organization.

Effective implementation of a firm's O.P expects to have positive outcomes on a firm. Peter (2016) highlights that if an organization's strategy of operating is able to timely meet clients' needs then customer satisfaction increases and hence loyalty thus giving the organization competitive advantage. Operations need to excel in speed so as to capture customers who require fast service delivery and dependability (Wentland, 2009). Similarly, effective cost management is expected to lead to improved profitability. In addition, operations strategy dimensions such as continuous process improvement, superior product development and competitive differentiation are associated with improved profitability of a firm (Heizer & Render, 2009).

1.1.4 State Corporations in Kenya

Kenyan corporates are set up and administered through State Corporations Act Cap 446 (1987) to provide goods and services to the members of the public. As at June, 2019, there were 168 corporations grouped in 8 broad classes (Matara, 2019); Training & Research, Financial, manufacturing, Service Regulatory, Tertiary Education, Universities, and Regional Development Authorities (RDA). As per Godia (2007) state corporations are meant to accelerate the country's economic growth, address regional imbalance, spur local entrepreneurship and encourage foreign investment via joint projects.

State Corporations face various challenges such as misappropriations of funds, perennial loses, ballooning debts, inefficient investments, lack of clear operational plans and guidelines and inadequate management procedures (Wanyama, 2016). According to the Office of the Auditor's general report (2017) submitted to parliament majority of them face low enforcement of standards, poor governance structures, low operational efficiency and poor investment decisions which result in poor performance as compared to private entities performing the same function. From the above it is evident that most of the challenges government entities face relate to the inadequacy of their O.S to adopt to the changing business environment and market demands. It is thus imperative that a study is done to try and establish the nexus between State corporations' operations strategy and their performance.

1.2 Research Problem

With the increased competition in the contemporary market, the public together with the private firms are required to perform excellently in operations so as to enhance performance. Operations strategy aims to reduce costs of production, shorten production time of quality products by eliminating activities that are non-value adding to the firm's operations (Brandon-Jones, Slack & Johnston, 2013). It is attained by incorporating competitive primacies and action plans to the organisation's strategic goal. Stevenson (1999) opines that an organization's operations strategy presents itself as a core management function with the potential of influencing key performance outcomes. Therefore, understanding the relationship between operations strategy and state firms is key. The Kenyan Government in 2005 introduced performance contracting as a basis of measuring performance. Emerging issues such as globalization, trade liberalization and technological advancement have greatly impacted the operating environment thus the need to align the corporation's operations to the market demands to improve performance.

State corporations in Kenya have gone through rapid and profound changes, since the introduction of result based management system by the Government of Kenya in 2005.They are required to operate based on the basis of performance contracts. Their operating environment has greatly changed since 2013. Some of these changes include growing globalization, trade liberalization and technological advancement. They are currently facing high level of inefficiencies as seen by such examples as the high level of congestion of containers at the port of Mombasa as it takes more than three days for a container to be cleared making the services at the port to be way below the international standards. They are also faced by leadership wrangles that have affected daily operations of the corporations and this has affected service delivery and general performance. Therefore, the alignment of the corporation's operations to the market demands may present an opportunity to improve the firm performance.

Maylor, Turner and Webster (2015) sought to determine the operations strategy in project – based operations. The findings suggest that the application of operations strategy increases a firm's competitiveness through cost management and delivery of high quality products. Bakar, Yuso and Irgiyati (2011) investigated the application of operations strategy in the Malaysian Construction industry and concluded that constructions firms that did not have clearly defined operations strategy were likely to fail as compared to those with operations strategy. Wagathera (2017) sought to determine the nexus between operations strategy, customer satisfaction and competitiveness in Bonfire Adventures and Events Management. The findings reveal a strong correlation between the firm's operations strategy together with competitiveness levels. Kipngetich (2016) investigated the correlation of operations strategy with the organizational results of ailing Kenyan organizations. The findings reveal the need for these firms to align their operations strategy to their operating environment. Ngelese (2016) researched on strategies of operation and customer retention in the Kenyan insurance sector and concluded that management of insurance firms change their operations strategy regularly; he opined that for better outcome the process should seek the input of the organizations' employees.

Though the study of nexus in strategy operations and its effect on organization's performance, it has attracted both local and international scholars; the studies have mainly concentrated on profit oriented organizations. There is limited research on state corporations. This research required to fill this gap by forming an influence on how Kenyan perform.

1.3 Research Objectives

The research objectives were

i. To determine operations strategy being implemented by Kenyan State Corporations.
ii. To determine impact of operations strategy in performance of Kenyan State Corporations.

1.4 Value of the Study

The research contributes to RBV, Institutional Porters competitive advantage theories on operations strategy by documenting the operations strategy practices adopted by state corporations. Scholars may have a basis for discussing operations strategy adopted by Kenya state corporations. The outcomes form basis of theoretical reference in operations management and its core theory of strategy operations.

The management of state corporations might be in a position to identify the operations strategy that is most suitable to their unique operations with substantial impact on the organizations performance and implement it if not already in place. It also helps to reorient policy decisions to an organisation's operations strategy to make its service delivery more efficient. The results of this research are useful in evaluating an institution's operations strategy and its effect on public service delivery. The study findings benefits practitioners and other government institutions in adopting operations strategy as a new frontier in public ector reforms with an aim of achieving better service delivery.

Finally, players at the public and private sectors benefit from the study in that it helps them identify shortcomings of the existing operations strategy and adopt better operations strategy that enables the organization to survive the turbulent competitive business environment. The policy makers might be able to identify and implement effective operations strategy that suits their institutions. This might be key in developing programs that can improve organization's performance.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This segment is on works linked to the study objective of establishing effect of operations strategy within performance of the Kenyan corporations. It covers models that underlie the research and empirical studies that are relevant to the research subject area. In addition, it presents the conceptual framework that guide the researcher in differentiating the study variables.

2.2 Theoretical Foundation of the Study

The segment argues relevant theories the research objectives. Discussions on effect of operations strategy on the output of organizations can be supported by RBV, the Institutional theory together with Porter's competitive advantage theory. This section discusses the three theories and highlights their relevance to the researc.

2.2.1 Resource Based View

RBV was put forward in 1980's and 1990's following the original concept by Wernerfelt (1984) who sought to achieve sustainable organizational competitiveness. Barney (1991) further advances the theory by noting that a firm is basically a reservoir of skills and assets which must be coupled with suitable organizational policies to produce goods or services capable of meeting the customers' needs. Peteraf and Bergen (2003) highlight that the key drivers of an organization's competitiveness are the quality of its rare resources, not easily copied by competitors and non- substitutable. Therefore, irrespective of how good a firm's competitive strategy is there is need to augment it with an elaborate operations strategy that covers the firm's corporate strategy, core competencies, product and service development, competitive priorities and customer driven strategies (Paiola, Saccani, Perona & Gebauer, 2013).

RBV is therefore of the view that prosperous company's efficiency can be enhanced by utilizing their unique and distinctive capacities that are often intangible or explicit in nature. Boyer, Swink and Rosenzweig (2005) highlight that an organization's capabilities on its own will not improve firm's performance, it will only combine the internal competences so as to create synergy leading to an improvement in an organization's performance. This was further emphasised by Swamidass, Darlow and Baines (2011) who opined that effective implementation of a firm's operations strategy led to cost containment, improved delivery speed, reliability, quality and flexibility of offerings. These outcomes are courtesy of the operations strategy implemented by the organization.

2.2.2 Institutional Theory

It was put forward by Scott (2004) who attempts to explain the deeper and resilient aspects by which organizational customs, schemes, guidelines, and practices are established as rules for corporate outcomes. The theory argues that local operations strategy is established as a consequence of rationalised institutional assessment of the operating environment and these routines should change depending on the market demands. Tsa and Cheng (2004) assert that institutional theory has been advocated as one of the most relevant perspectives for studying firm operations, especially in developing countries that are characterized by weak legal and enforcement frameworks. Peng and Zhou (2005) contend that establishment of an organization's operations strategy identifying the requirements will lead to improved outcome as it reduces the level of uncertainty among its internal and external stakeholders.

Institutional theory offers appreciation of a manner and governance procedures regarding their unique features across industries, countries and regions (Bakar, Yuso & Irgiyati, 2011). Public corporations can exploit its assets in its operating environment by containing operational costs that limit its performance. One of the ways of doing this is by restructuring its operations strategy regularly to match the organization's cultural, managerial and external problems. This is so in that for an organization to be successful, it has to buttress its operations strategy to the existing firm's strategy (Slack et al., 2013).

2.2.3 Porter's Competitive Advantage Theory

Porter (1980) argues that output of a firm in a market place and the market at large depends on the nature of the market in which a company operates in (Porter, 1981). The factors responsible for re-aligning the framework of all industries in the economy (Porter, 2008). These five drives are; availability of substitute products, threats that a rival firm possess, powerful buyers, potential new competitors and powerful suppliers. These variables are equally strong and define the capacity for profit which will be realised in the industry.

The competitive stand of a company affects its capacity to maximize earnings. With increasing rivalry, the focus of different competing firms converges with the objective of survival (Grant, 2005). Porter therefore points out that the five-force model helps a firm identify the sector in which it competes in addition to identifying its direct competitors. Porter thus outlined a framework to deal with these forces which consist of cost leadership, differentiation and focus. Cost leadership means an alternative approach aimed at overcoming rivals by efficiency rather than quality (Porter, 1990). It aims to deliver better facilities to clients at reduced cost. Differentiation is another approach which seeks to create a customer niche that acknowledges the service or product provided to be of high quality (Porter, 1990).

2.3 Dimensions of Operations Strategy

The long-term perspective of a firm is achieved through establishment of an effective operations strategy that will work in tandem with the corporate strategy to achieve the set goals. An organization's operations strategy thus attempts to identify the best way to organize a firm's operations in order to actualize the overall corporate goal. Barnes (2012) asserts that organization's strategy operations lend assists the business strategy by creating sustainable competitiveness by making use of internal resources. Slack and Lewis (2011) explain that the commonly agreed dimensions of a firm's operations strategy that need to be adapted continously are; service or product quality, flexibility, delivery performance and low cost .

The quality dimension of operations strategy is concerned with the degree to which firms place emphasis on reducing defects in their production processes, improving vendor quality, improving product performance and reliability, obtaining ISO 9000 certification and implementing quality control circles (Kruger,2012). Brown, Squire and Lewis (2010) include aesthetics in the supposed operational value of the product as measured by how it looks, feels, sounds and smells.

The flexibility characteristics of a corporate's operations strategy is its ability to vary production to meet the changing product demand, the firm's ability to launch a new product, and simultaneously offer a varied range of products which meet customer requirements (Sethi & Sethi 2010). In their seminal work on competitive strategy typology, Miles and Snow (1978) believe that the organization's ability to enhance production and standards are two ways to promote efficiency. Affisco and Soliman (2006) identified four areas in which organization flexibility is manifested in its operations; shortening procurement together with manufacturing time, set-up time and time for developing of new product. Similarly, Sawhney (2006) reinforced the operations flexibility characteristic to include processes, labour, equipment, input resources, new product modification and delivery process flexibility.

Delivery performance dimension of operations strategy is concerned with improving the delivery reliability, speed delivery, technical support and enhancing pre-sales service, as well as the extent of focus towards the after sales-service (Kruger, 2012). The capacity of an organization to create a product or offer services in an efficient manner will result in the low cost output dimensions of operations strategy. The objective of cost management is to cut out a niche market which consumes the output of the organizations in high volumes (Rytter, Boer & Koch 2007). Embracing technology is one of the approaches that organisations employ to reduce their costs. The key areas in achieving cost reduction include reduction of facility expenses, equipment price, overhead costs and the optimum amount of stock maintenance (Flynn & Flynn, 2004).

2.4 Empirical Literature Review

Operations strategy is important to every institution thus attracting other scholars who have sought to establish its effect on an organization's outcome. This section examines various studies on operations strategy that have been undertaken in different industries, both in developed and developing countries.

Yu (2011) examined the connections between operations strategy, business climate and operating assets on China's retail business performance. The research adopted triangulation research method whereby both case study and quantitative research design was employed. The results show powerful links between company variables (e.g. price and economic dynamics), operations strategy and efficiency. The research also indicates that operating resources (for example, retail technology, personnel, customer and supplier connections) are critical in assisting companies formulate operations strategy thus enhancing efficiency. The research concentrated on retail firms which are profit oriented unlike the present research which will centre on public organizations that are majorly not for profit.

Oltra and Luisa (2010) researched on the impact of organization's corporate strategy on performance of ceramic companies in Spain. The study observed a substantial connection of an organization's output and the strategies of operation. The research findings suggested that quality and cost characteristics positively affected the firm's outcomes while flexibility was found to provide negative impact on organisation's outcome. The research employed regression analysis and though the study mirrors the current one in terms of the objectives, the context and scope differ in the sense that the target firms were profit oriented. Voss and Blackmon's (1998) explored the effects of time horizons on operations strategy. The report highlighted the importance of time horizons within major strategic processes supporting the findings of Das (1990).

Amoako-Gyampah and Boye (2011) sought to determine the operations strategy employed in the Ghanaian manufacturing industry by using a survey research design that sought to determine from production managers how the firms' access to labour, business costs, environmental factors and competitiveness influenced their operations. The research results showed that a company's expenses and market aggression were the main variables influencing operations strategy amidst companies in Ghana. These findings though undertaken in a different setting, upheld the findings of Ward et al. (2005) who found out that a business's operating environment influences the level in which a firm adopts operations strategy. This then implies that operations managers should consider the environment they operate in when determining the appropriate operations strategy.

Wagathera (2017) researched the effect of operations strategy on customer satisfaction as a measure of competitiveness at Bonfire Adventures and events limited. The research sought to establish effects of this strategy on customer satisfaction by using a research design which is descriptive. The findings indicated existence of a strong positive correlation and its competitiveness. This is in line with the results of Ward and Zhou (2006) that indicate that lean practices in operations strategy provides better outputs on manufacturing companies.

A research study by Kipngetich (2016) on the impact of strategies of operations on output of ailing companies in Kenya reveals that, though firms under the research had adopted varied operations strategies, the compatibility of the strategies employed were found inappropriate to the business environment. The researcher reinforced the need for a company to identify and put appropriate policies unique to operations and cognisant of the business environment. This implies that there is no universally accepted operations strategy to all firms and adaptability is a crucial factor.

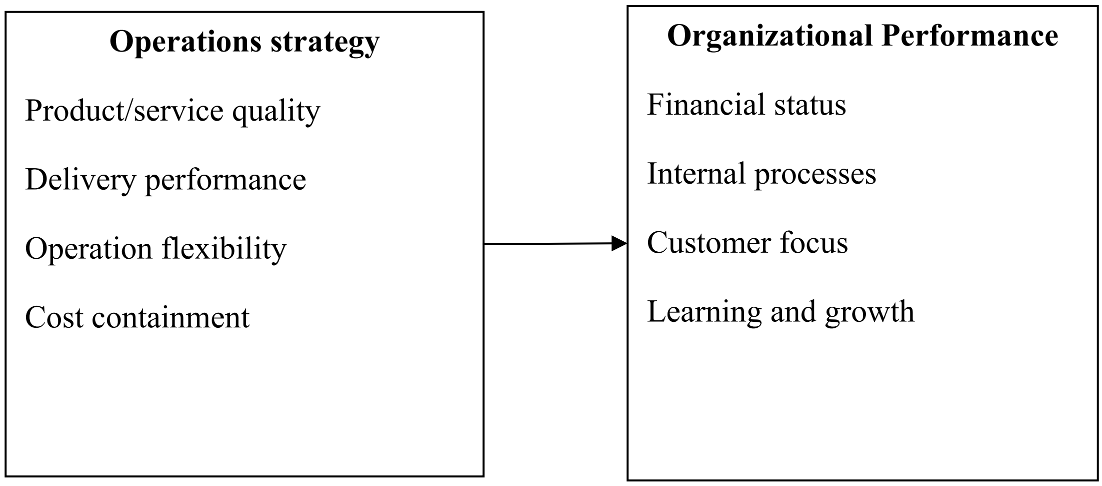
2.5 Summary of the Literature Review and Research Gap

This together with synthesis on the effect of operations strategy on the organization's outcomes has been discussed in the prior sections. The studies covered look at the operations strategy employed by businesses and non-profit organizations. What came out from the studies is that different companies employ varied operations strategy that are tailored to their unique business set-up and are adaptable to the sector that a firm is operating in. Different operations strategies were found to have varied degree of influence on organizational performance thus the results have been mixed.

Despite the diverse literature on operations strategy and its effect on firms' performance, past studies have concentrated on profit oriented firms with a large proportion of the studies seeking to determine how O.S affect the profitability of the firms. The same however cannot be said for public corporations whose objectives are majorly provision of services to the public. As a result, the forms of operations strategy that public organizations pursue differ from those of private organizations. The study will adopt an integrated approach of balance scorecard performance measure as it is appropriate to public organizations. The study seeks to bridge the gap by seeking to determine operations strategy effects on public corporation's performance in Kenya.

2.6 Conceptual Framework

Reichel and Ramey (1987) identified conceptual framework as collection of wide ranging concepts plus thoughts derived from appropriate investigative areas and employed to organize future presentations. From the review of literature, it is depicted that the operations strategy adopted by an organization has an influence on performance. The connection among the firm's operations strategy and output can be represented in the following schematic diagram.



Independent Variable **Dependent variable**

Figure 2.1*:* Conceptual Framework

CHAPTER THREE:RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the methodology adopted by the research to achieve its desired objective. It is divided into various sub segments such as design, population, collection & analysis of data.

3.2 Research Design

The research employed cross sectional research design. Gill and Johnson (2006) report that descriptive survey design focus primarily on the characteristics of a specific subject population. It enables the researcher to find the true views, attitudes, behaviors and principles of an individual to determine how the scenario is related to the target group. The research employed this design because the research was done across all state parastatals at the same time and hence the findings cut across all the firms. This study design was considered the best suitable for this research study as it enabled researchers to conclude the survey factors without manipulating the decisions of the respondents hence enhancing monitoring.

3.3 Population of the Study

The research population was Kenyan State Corporations as at June 2019. There were 168 parastatals in Kenya categorized into eight classes (Appendix II). This formed the research population.

3.4 Sample Size and Sampling Technique

Stratified sampling technique was adopted. The researcher selected state corporations from each of the eight categories that were considered as strata. Since the population is heterogeneous it was not necessary to take care of the characteristics of each stratum when adopting stratification. The researcher then systematically selected all even numbered firms in each of the eight strata and with this method, the sample was 84 state corporations.

3.5 Data Collection

The study was based on primary data and the questionnaires were structured. Close ended questionnaires were used to facilitate fast respondent responses. The questionnaire consisted of three parts. Section A covered respondents' and organizations demographic data while part B sought to find out the organization's operations strategy. Section C sought to establish the relationship of an organization's operations strategy and performance. The researcher administered one questionnaire per parastatal to the operations manager or staff holding equivalent position.

3.6 Operationalization of Study Variables

Table 3.1 shows variables being operationalized.

Table 3.1: Operationalization of the Variables

Variables	Sub-Variables	Indicators	Measurement Scale	Source
Independent Operations Strategy	Service quality	• The service delivery conforms to well defined and documented • Operating standards and procedures. • The service delivery conforms to well defined and documented Service Level Agreements and charters. • All stakeholder feedback is documented and acted upon. • The organization has a well-established and documented quality control cycle • There are well-documented terms of engagement with vendors/suppliers. • Staff are regularly trained as per the Annual Training Plan.	Likert Scale 1 No extent 2 Little extent 3 Moderate extent 4 Great extent 5 Very great extent	Parasuraman,, Berry and Zeithaml (1991
	Operational Flexibility	• There are adequate staff to deal with varying demand needs. • There are adequate facilities to cope with the varying demand needs. • Technology has been embraced in service delivery to cope with the changing customer needs. • All emerging issues in the market are continuously documents. • Management of procurement lead times. • A corporate plan has been launched in the last two years in line with the changing business environment.	Likert Scale	Slack and Lewis (2011).
	Delivery Performance	• There are well documented time lines for service delivery. • Embracing of government initiatives such as Huduma centres in its service delivery.	Likert Scale	Kruger (2012)

		• Embracing technology in service delivery. • Embracing a self-serve service delivery module. • Optimal decentralization of an organization's activities. • Setting up of optimal fully functional call centres.		
	Cost Containment	• Budgets are set and adhered to. • Leveraging technology to reduce cost. • All cost elements are clearly documented. • Organizational structure is drawn and strictly adhered to. • All statutory requirements are strictly adhered to and documented. • Cost of doing business is within the stipulated percentage limits.	Likert Scale	Boer and Koch (2007)
Dependent Organization performance	Financial Perspective	• Achievement of financial targets. • Completion of projects as per schedule and within set budget limits. • Completion of partnership and donor programs within set time and cost limits. • Reduced cost of running organization's operations.	Likert Scale	Kaplan and Norton (1992)
	Learning and Growth Perspective	• Enhanced staff capacity/skills. • Improved corporate culture. • Structured career progression based on the promotion policy. • Improved integrity index.	Likert Scale	Kaplan and Norton (1992)
	Business Processes Perspective	• Improved quality of services. • Attainment of ISO certification. • Improved operational efficiency. • Proper documentation of Information and feedback.	Likert Scale	Kaplan and Norton (1992)
	Customer Perspective	• Enhanced customer satisfaction. • Enhanced stakeholder engagement. • Adherence to statutory laws. • Reduced customer complaints.	Likert Scale	Kaplan and Norton (1992)

3.7 Diagnostic Test

Normality and multicollinearity tests were conducted on the data to ascertain how suitable the data was and to check for multicollinearity. In the current research, normality was tested using Shapiro-Wilk and Kolmogorov-Smirnov Test. Shapiro-Wilk Test is appropriate for sample sizes that are small like in the current study. Test of multi-collinearity evaluates the high correlation of independent variables. If two or more predictors are extremely linked in the model it contributes to inaccurate and uncertain measures of regression coefficients and therefore bizarre outcomes in studying how easily the independent variable is understood. To test the level of correlation, Wooldridge F-statistic serial autocorrelation analysis was undertaken. Serial correlation test was done using Durbin Watson serial test to test the level of correlation. Heteroscedasticity test was used to inspect if there's dissimilarity in the variance of the time of observation to others (Godfrey, 1996).

3.8 Data Analysis

To enhance the accuracy, consistency and completeness of the data collected the researcher edited the completed questionnaires. Various scholars argue that numerical data is convenient for analysis therefore the researcher coded all the string variables to mathematical form to aid statistical analysis. Analysis of collected information was achieved through descriptive statistics (measures of variation and central tendency).

The results obtained from the collected questionnaires formed the primary focus of the analysis. Mean, standard deviations, frequency of variables and computed percentages was used in particular to summarize answers and to show the extent of variances among the variables. The findings are presented in tables.

The dependent variable was organizational performance while the independent variable in the current study was operations strategy. The regression equation was as follows:

Organizational Performance = f (x_1, x_2, x_3, x_4, x_5);

The linear regression equation took the form;

$$Y = \beta o + \beta_1 x_1 + \beta x_2 + \beta_3 x_3 + \beta_4 x_4 + \beta_5 x_5$$

Where Y = Organizational Performance

β_o = Constant

x_1 = Product/Service quality

x_2 = Operational flexibility

x_3 = Delivery Performance

X_4 = Cost containment

X_5 = Labour availability

The regression significance was determined using the F- test whereas R^2 which is the coefficient determines variation in Y that is explained by X variables. 5% significance level or 95% confidence level was used and correlation analysis determined to establish the direction and power of the association between operations strategy and organizational performance.

3.9 Data Validity and Reliability

Reliability describes how the results of certain tests, procedures and instruments such as a questionnaire will be similar if used in various circumstances by various users and at varied times (Roberts, 2006). The study did a pilot test to improve the dependability of the tool. Analysis of data collected from the pilot test was conducted using Cronbach's alpha to find out the internal average correlation or uniformity in instrument of study to evaluate its consistency, bearing in mind an alpha figure of 0.7 to show reliability of the instrument. The lesser the variability score, the greater the internal reliability of the questionnaire.

Validity describes how accurately a concept that is sought to be measured is reflected (Keith & Punch, 2014). External validity is the ability by other people to confidently put to use the results to other situations. In this research, caution was done to ensure sample population representative were drawn and relevant variables such as age and category of organization taken into account. Internal validity sought to ensure that results did not deviate from the expected. This could thus be enhanced by developing questionnaires for pilot testing by similar respondents as those in the study.

To minimize response bias, research assistants who assisted with data collection, were trained prior to administering them. Employees of the state corporations selected for the study were informed that their responses would remain anonymous and not in any way influence the services they render. In addition, the respondents were allowed to seek clarification for whatever was not clear. Systematic random sampling was carried out to avoid interviewer bias.

CHAPTER FOUR:DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

The core objective of this research was to establish the effect of operations strategy on performance of state corporations in Kenya. This segment presents the analysis of the collected information. It contains descriptive analysis of the outcomes and analysis of variances conducted to determine the significance of the model and to obtain the coefficients that will help establish the connection amongst the dependent and independent variables. The study was on the demographic information of the State Corporation, operations strategy and dimensions of organizational performance.

4.2 Response Rate

The research was based on a population of 168 state corporations that are gazetted to operate in Kenya. The researcher adopted stratified sampling to select the sample. Of the eight different categories consisting of 84corporations targeted; the researcher got back 68 questionnaires. It represented an 80.9% response rate, which is considerably adequate in providing a representative result. According to Mugenda and Mugenda (2003), 50 per cent response rate is adequate, 60 per cent is good and above 70 per cent very good. It also agrees with Bailey's (2000) statement that 50 per cent response rate is considered adequate, response rate greater than 70 per cent is very good. Centered on that statement, then the 80.9% response rate is very good for the study.

4.3 General information and Organizational Bio Data

This part represented the first section of the questionnaire that aimed at establishing the individual organizational demography. The results are presented in Table 4.1.

Table 4.1: Organization Bio Data

Employees	Frequency	Percent	Cumulative Percent
200-300	2	2.9	2.9
301-400	8	11.8	14.7
401-500	25	36.8	51.5
Over 500	33	48.5	100.0
Total	**68**	**100.0**	
Age of organization	**Frequency**	**Percent**	**Cumulative Percent**
Less than 10 Years	7	10.3	10.3
10-20 years	22	32.4	42.6
21-30 years	17	25.0	67.6
31-40 Years	15	22.1	89.7
Over 40 years	7	10.3	100.0
Total	**68**	**100.0**	

From the results in Table 4.1, it is established that close to half (48.5%) of the state corporations that participated in the study had more than 500 employees, while slightly over one third of the state corporations had between 401 – 500 employees. In total, over 85% of the state corporations sampled had more than 400 employees. In addition, the results depict that the bulk of the state corporations (32.4%) have been in operations for a period of between 10-20 years with only close to one tenth of the organizations having been established in the last ten years. Similarly, a tenth of the firms had been in operations for a period of over 40 years.

4.4 Operations Strategy Dimensions

The second part of the questionnaire was concerned with determination of the operations strategy implemented by the state corporations. In this regard, the major dimensions investigated were service quality, operational flexibility, delivery performance and cost containment. The results for each of these variables are as discussed in the section below. The variables were measured in a range represented by 'strongly disagree' (1) to 'strongly agree' (5). The score of disagreement in the questions were characterised by a variable with the mean score of between 0 and 2.5 on the Likert scale; (0≤ S.D <2.4). Further, the researcher presumed that the 'undecided' took the variable with a mean point of 2.5 to 3.4 on the Likert scale: (2.5≤M.E. <3.4) whereas the score of both strongly agree and agree signified the variables whose mean score were between 3.5 and 5.0 on a continuous Likert scale; (3.5≤ S.A. <5.0). To determine the degree of agreement among the respondents, a standard deviation that is > 1.0 was taken to represent difference in opinion.

4.4.1 Service Quality

The organizational service quality is concerned with the degree to which firms manage their production systems with a view to reducing complaints and increasing service quality through the implementation of quality controls. The results on the service quality practices by the state corporations are displayed in Table 4.2.

Table 4.2: Service Quality Practice

Statement	**N**	**Mean**	**Std. Deviation**
The organization has well defined and documented Service Level Agreements and charters.	68	3.84	0.874
The organization has well defined and documented operating standards and procedures.	68	3.54	0.665
The organization has well-documented terms of engagement with vendors/suppliers.	68	3.41	1.082
Staff are regularly trained as per the Annual Training Plan.	68	3.38	1.246
All stakeholder feedback is documented and acted upon.	68	3.35	1.169
The organization has a well-established and documented quality control cycle	68	3.19	1.273
Overall Mean		**3.45**	

The findings with regard to the service quality dimension of the state corporations operations strategy shows that 90% of the firms had documented service charter and agreements that guide their relationship with external partners (M=3.84) and also that the organization had documented operating standards and procedures to guide their operations internally. To a moderate extent, the results shows that the state corporations had well documented agreements with vendors and that employees are trained periodically according to the annual training plan (M =3.38). The high standard deviation that is more than 1.0 however implies that the respondent's answers differed and therefore there was less concurrence. The findings also suggest that the least practiced attribute of service quality dimension is the organizations' having a well-established and documented quality control cycle (M=3.19, SD=1.273).

4.4.2 Operational Flexibility

The second dimension of organizational operations strategy that was investigated with regard to the state corporations is operational flexibility. The results are depicted in Table 4.3.

Table 4.3: Operational Flexibility Practice

Statement	N	Mean	Std. Deviation
The organization has embraced technology to cope with the changing needs	68	4.32	.633
The organization has been able to reduce the procurement lead-time	68	4.01	.819
The organization has adequate staff to deal with varying demand needs	68	3.96	.762
The organization has enough facilities to cope with the varying demands needs.	68	3.84	.874
Customer perception surveys are done regularly to understand customer needs.	68	3.60	.756
The organization has launched a corporate plan in the last two years in line with changing business environment	68	3.46	1.043
Overall Mean		**3.87**	

The findings reveal that to a large extent, the organizations have embraced technology to cope with the changing needs (M= 4.32) and that they have the ability to reduce the customer service time (M= 4.01). The low standard deviation on the results implies that the respondents are in agreement. However, to a reasonable extent, the outcomes reveal that the organizations had launched a corporate plan in the last two years in line with the changing business environment (M=3.46, SD=1.043) and that customer perception surveys are done regularly to understand customer needs. (M=3.60).

4.4.3 Delivery Performance

The delivery performance is concerned with the process of offering services to the final consumer in a way that is satisfactory. On the question relating to the organizations 'delivery performance, the outputs are presented in Table 4.4.

Table 4.4: Delivery Performance

Statements	N	Mean	Std. Deviation
The organization has well documented time lines for service delivery.	68	4.19	.718
The organization has embraced technology in its service delivery.	68	3.79	1.045
The organization has set up fully functional call centers.	68	3.59	1.082
The organization has embraced government initiatives such as Huduma centers in its service delivery.	68	3.59	1.200
The organization has embraced a self-serve delivery module.	68	3.26	1.192
The organization has optimally decentralized its activities.	68	3.13	1.233
Overall Mean		**3.59**	

From the outcomes in Table 4.4, it can be inferred that the common delivery practice among the organizations is to have a documented timeline of service delivery, a position that to a large extent was acknowledged by the state corporations sampled (M=4.19). The low standard deviation level of the responses indicates that there was concurrence among the respondents on the extent to which the organizations had documented their service delivery process. In addition, the outcomes disclose that the bulk of the firms had embraced technology in their service delivery. However, to a low extent, the findings suggest the organizations had decentralized their operations (M= 3.13) and similarly had adopted a self-service delivery module. However, the high level of standard deviation that is higher than one suggests pronounced difference among the respondents.

4.4.4 Cost Containment

The fourth dimension of operations strategy that was investigated relates to cost containment. The findings are shown in Table 4.5.

Table 4.5: Cost Containment

Statement	N	Mean	Std. Deviation
The organization sets and adheres to a budget developed	68	4.37	.644
All statutory requirements are strictly adhered to and documented.	68	3.93	.759
Organization structures are drawn and strictly adhered to.	68	3.74	.840
All cost elements are clearly documented	68	3.71	.811
Cost of doing business is within the stipulated percentage limits	68	3.47	1.215
The organization has embraced technology.	68	3.41	1.040
Overall Mean		**3.77**	

The findings in regard to the cost containment show that to a large extent, the state corporations practice adherence to the budget provision in a particular period with regard to expenditure (M=4.37, SD =0.644). Similarly, there was high level of agreement between the respondents that the organizations adhere to the statutory requirements. However, to a moderate extent, the findings suggest that the organizations have embraced technology (M=3.41, SD=1.04) and the high standard deviation shows that there was difference in opinions among the respondents. In addition, there was less concurrence to the fact that the organizations were operating within the stipulated percentage limits (M= 3.47, SD= 1.215).

4.5 Organizational Performance

The organizational performance of state corporations was evaluated using the balance scorecard performance measure. This was done by evaluating the four operational performance dimensions of the corporations; financial, learning and growth, internal processes and customer perspectives. The outcomes are presented in Table 4.6.

Table 4.6: Organizational Performance Measures

Financial Perspective	**N**	**Mean**	**Std. Deviation**
The organization completes its projects as per schedule and within set budget limits.	68	4.19	.833
The organization has over the years met its financial targets.	68	3.96	.700
The cost of running operations/organizations has reduced.	68	3.75	1.056
The organization has completed all partnership and donor programs on time and within set cost limits.	68	3.59	1.162
Overall Mean		**3.87**	
Learning and Growth			
Staff capacity/skills have been enhanced over time through structured trainings.	68	3.54	1.085
The organization's integrity index has improved over time.	68	3.43	1.176
Corporate culture has changed positively over time.	68	3.22	1.291
Career progression has been embraced based on the promotion policy	68	3.22	1.144
Overall Mean		**3.35**	
Internal Process Perspective			
The organization has improved its management of information and feedback.	68	3.91	.787
The organization has attained ISO certification.	68	3.71	.811

Financial Perspective	N	Mean	Std. Deviation
The organization has improved the quality of its services offered.	68	3.54	1.125
The organization has improved its operational efficiency by embracing technology.	68	3.51	.819
Overall Mean		3.67	
Customer Perspective			
The customer satisfaction has improved over time.	68	4.28	.688
Penalties and lawsuits relating to non-adherence to statutory laws have reduced over time.	68	4.01	.837
The organization has enhanced stakeholder engagement.	68	3.91	.707
Customer complaints have reduced over time.	68	3.59	.934
Overall Mean		**3.95**	

The results from Table 4.6 on the performance of the organizations shows that with regard to financial performance measure; the majority of the organizations were able to complete their projects within the stipulated time (M=4.19) and were also able to meet their financial targets. However, to a moderate extent, it was found that the organizations were able to complete partnership and donor funded projects within the set cost limits (M=3.59, SD=1.162). Indication of the high standard deviation is the wide variations of the responses by the different respondents.

In regard to the learning and growth performance indicator of the state corporations, the findings show that staff capacity has been enhanced over time through structured trainings that the organizations have embraced. The career progression of its employees and their integrity index have also improved over time. This coupled with the acceptance of improved Information Technology has facilitated feedback process with stakeholders.

Similarly, as a result of quality service offerings, the results shows that to a large extent, the organizations have achieved quality certifications, ISO 9001 (M=3.71). The other aspect of performance measure investigated by the researcher is customer satisfaction which reveals that to a large extent, customer satisfaction has improved over time (M=4.28) as well as a reduction in the amount of penalties and lawsuits relating to the non-adherence to statutory laws have reduced (M=4.01). However, it was also found that to a moderate extent, customer complains had reduced (M= 3.59).

4.6 Diagnostic Tests

The suitability of the primary data collected with regard to the variables that spearheaded the achievement of the study objective were established through the diagnostic test. Diagnostic test comprises of test of normality, test for multicollinearity, serial correlation and heteroscedasticity.

4.6.1 Test of Normality

The Shapiro Wilk test was used to verify if normality exists among the variables investigated. The analysis was undertaken under a 5% significance level as represented in Table 4.7.The data collected for analysis is normally distributed since the significance level is less than 0.05, the cut-off point. This thus implies that the data was normally represented and thus limited skewedness was witnessed in the results.

Table 4.7: Shapiro-Wilk Test of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	**df**	**Sig.**	**Statistic**	**df**	**Sig.**
Organizational performance	.190	68	.000	.889	68	.000
Service quality	.275	68	.000	.848	68	.000
Operational flexibility	.214	68	.000	.901	68	.000
Delivery performance	.183	68	.000	.901	68	.000
Cost containment	.192	68	.000	.864	68	.000

a. Lilliefors Significance Correction

4.6.2 Test of Multi-Colinearity

The researcher investigated the magnitude to which variables are correlated to each other and thus the impact results of one variable might have on the outcome of the other variable. This was measured by undertaking the Colinearity test and the findings are as presented in Table 4.8. The researcher employed the tolerance together with variance inflation factor as the measures of multi-collinearity.

Table 4.8: Tolerance and Variance Inflation Factor measure of Collinearity

	Collinearity Statistics		
Model	**Tolerance**	**VIF**	**Comment**
Service quality	.970	1.031	No multi-collinearity present
Operational flexibility	.802	1.247	No multi-collinearity present
Delivery performance	.938	1.066	No multi-collinearity present
Cost containment	.774	1.293	No multi-collinearity present

a. Dependent Variable: Organizational performance

To establish the existence of multi-collinearity among the variables the tolerance values need to be less than the recommended value of 0.2 while the variance inflation Factor (VIF) need to be less than 10. Hence from the results presented in Table 4.8, it can be deduced that there is no multi-collinearity between the variables since the tolerance level is greater than 0.2 while the VIF is less than 10. Hence the independent variables are not influencing each other.

4.6.3 Serial Correlation

Autocorrelation which is also known as serial correlation serial correlation analysis was conducted to test whether the study variables were correlated with their lagged versions in a way over a period of time. This ensures the OLS estimates are not biased. The diagnostic results are found In Table 4.9.

Table 4.9: Serial Correlation

Test	Statistic
Durbin Watson	3.167

The Durbin Watson serial correlation test results as per Table 4.9 indicated the value to be 3.167 which is more than 2 implying that there is no serial correlation.

4.7 Operations Strategy and Organizational Performance

The significance of computing regression analysis is to establish the linear equation that will represent the relationship between the variables under investigation to each other. The resulting linear equation from the analysis of multiple regression helps in predicting the value of the dependent variable, when the coefficients of one or more independent variables are fixed with a given unit value.

Multiple regression analysis was done with the aim of testing the correlation among explanatory variables and the outcome variable on the effect of operations strategy and performance of state corporations. The coefficient of determination describes the degree at which variations in the outcome variable can be clarified by the variation in independent variables or the ratio of variation in the dependent variable which in this case is the performance of State Corporation that is interpreted by all the four independent variables.

4.7.1 Model Summary

The model summary shows the extent to which the predictor variables explain the performance of organization performance. The results are shown in Table 4.10.

Table 4.10: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.525[a]	.276	.230	1.088

a. Predictors: (Constant), Cost containment, Service quality, Delivery performance, Operational flexibility

b. Organization performance

The results from Table 4.10 shows that the correlation coefficient (r) of the variables of 0.525 suggest that there exist a positive correlation between operations strategy and organizational performance and that the coefficient of determination (R^2) of 0.276 implies that 27.6% of the variation in organizational performance is accounted for by variation in the operations strategy. This means that 72.4% of the organization's performance is explained by other factors not included in the regression model. This implies that other variables have greater impact on the performance of these state organizations.

4.7.2 Analysis of Variance

Analysis of the variance explains the fitness of the model to be used as an estimator of the dependent variable. This is established from the F-statistic value. The results are shown in Table 4.11.

Table 4.11: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	28.432	4	7.108	6.007	.000[a]
	Residual	74.553	63	1.183		
	Total	102.985	67			

a. Predictors: (Constant), Cost containment, Service quality, Delivery performance, Operational flexibility

b. Dependent Variable: Organizational performance

The results in Table 4.11 suggest that the F statistic of the data is 6.007. At 5% level of confidence, the F statistic was significant. In this case, all the predictor variables (Cost containment, Service quality, Delivery performance, Operational flexibility) act as a good explainer of the performance of the state corporations. The significance level is 0.000 which is less that 0.05 the assumed error margin and therefore suggesting that the regression model acts as a good estimator of the predictor variables on organizational performance.

4.7.3 Regression Coefficients

A regression coefficient is used to determine the degree of the impact that every individual independent variable may have on the outcome variable. Table 4.12 displays the coefficients of the variables in the regression model, the t-values of every predictor variables as well as the degree of level of significance.

Table 4.12: Coefficients

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	3.251	.975		3.334	.001
Service quality	.025	.123	.022	.205	.838
Operational flexibility	-.291	.133	-.262	-2.192	.032
Delivery performance	.436	.103	.467	4.223	.000
Cost containment	-.066	.140	-.057	-.468	.641

a. Dependent Variable: Organizational performance

Given the constants obtained from the regression analysis, the general regression equation will therefore take the form,

$Y = 3.251 + 0.025X_1 - 0.291X_2 + 0.436X_3 - 0.066X_4$

The findings in Table 4.12 show that; in the absence of service quality, operational flexibility, delivery performance and cost containment in the organizations, the performance will be 3.251 units. From the results, it can be deduced that the significant variables that affect the performance of the organizations is operational flexibility and delivery performance since their p-values are less than the significance level of 0.05.

On the other hand, service quality and cost containment are insignificant since their p-values are greater than 0.05. Individually, the results reveal that a unit increase in the organization's service quality will result in an increase in organization performance by 0.025 while a unit increase in operational efficiency will result in reduction in organizational performance by 0.291. Similarly, a unit increase in organization delivery performance will result in an increase in organization performance by 0.436 units and a unit increase in cost containment will result in a reduction of organization performance by 0.066 units.

4.8 Discussion of the Findings

The objective of the study was to investigate the effect of operations strategy on the performance of state corporations in Kenya. The operations strategy was indicated by the organizational level of service quality, operational flexibility, delivery performance and cost containment. The researcher sought to determine important demographic data of the state corporations and found that most of the firms sampled had more than 500 employees. This level of workforce – according to Magutu, Aduda and Nyaoga (2015) citing the Kenya Association of Manufacturers (KAM) (2011) classification qualify to be large scale manufacturers. This size of workforce can be attributed to the wide geographical areas that state corporations serve and the uniqueness of services that they offer. In regard to the operational period of the state corporations, it was noted that close to 90% of the firms had been in operation for over 10 years and the others are mostly those that arose as a result of the promulgation of the new constitution 2010 and increased regulation in such sectors as energy, financial and agricultural.

According to the findings, the service quality dimension is manifested by a service quality charter that guides their relationship with external stakeholders and documented quality operating standards and procedures to guide their operations internally. The quest by state corporations to have internal procedures that guide its operations is in line with Kruger (2012) who asserts that one of the tenets of ISO 9001 certification is the need for business units to have an internal charter that relates to their external relationship with partners.

The results also reveal that to a low extent, the organizations had implemented quality control cycle procedures in their operations; this finding differs with that of Amoako-Gyampah and Boye (2011) who found out that one of the key practices to meeting customer satisfaction among Ghanaian manufacturing firms is the establishment and strict adherence to quality manufacturing cycles. This difference might be due to the fact that the scholars concentrated on profit oriented firms and not state corporation like in the current study.

From the results, service quality with a p-value of (P-value = 0.838) being more than 0.05, implies that it is not significant to influence the performance of state corporations and these findings differ with those of Brown, Squire and Lewis (2010) who found out that the level of service quality was a key determinant of both financial performance and level of customer satisfaction.

The organizational flexibility was manifested by its ability to employ various forms of technology that has facilitated reduction in the procurement,service lead-times and set-time. In addition, the organizations were found to have adequate employees that facilitate quick adjustment to changing customer demands. This finding recognizes the role of internal resources as a contributor to performance in line to the Resource Based View (Barney, 1991) who notes that the existence of unique and imitable internal resources will be able to positively affect the performance of a firm. Increased technology adoption and firm flexibility is one such internal resource. However, as Boyer, Swink and Rosenzweig (2005) suggest, an organization's internal capabilities on their own will not improve a company's performance but rather the ability of the organization to combine these internal capabilities in a manner that creates synergy leading to an improvement in an organization's performance.

The importance of organizational flexibility was found to be significant in affecting the performance of the state corporation with the p-value being 0.032. Effective flexibility was also found to result in increased delivery performance. This is in line with RBV that was advanced by Barney a firm is basically a reservoir of skills and assets which must be coupled with suitable organizational policies to produce goods or services capable of meeting the customers' needs. This reservoir of skills and assets are what enhances operational flexibility.

Cost containment practices were found to be manifested through such actions as adherence to budget provisions and statutory requirements that keep being raised by the government with a view to reducing the level of overheads costs. The level of cost containment is associated with the organizational norms and routines because with effective streamlining of operational activities, an organization is able to reduce wasteful activities. This is in line with the provisions of the Institutional theory (Scott, 2004) that asserts that local operations strategy is established as a consequence of rationalised institutional assessment of the operating environment and these routines could change depending on the market demands. Hence the ability of an organization to adapt its operations to match the market demands thus its ability to influence the level of performance through cost containment (Tsa & Cheng,2004).

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The research findings have been presented in Chapter four. This chapter presents the summary of the findings founded on the objective of the research and draws conclusions thereof. In addition it covers recommendations for policy and practice, limitations to the research and finally makes recommendations for further research.

5.2 Summary of the Findings

The objective of the research was to investigate the impact of operations strategy on the performance of State Corporation in Kenya. The operations strategy was indicated by service quality, flexibility, delivery performance and cost containment. Also, the organizational performance was represented by the balance scorecard dimensions, namely; financial performance, learning and growth, internal processes and customer perspective.

The findings reveal that the service quality of the state corporation was implemented through establishment of service charter that defines the relationship between the firm and the external stakeholders. Organizations had well documented quality operating standards and procedures to guide their operations internally with a view of improving the reliability of the services being offered by the organizations. The service quality dimension was found to be insignificant, affecting the firm's performance with a p-value of 0.838 .One unit increase in service quality the organizational performance increased by 0.025.

In regard to organizational flexibility, it was noted that the organizations had adopted different forms of technology along their operations value-chain with the resultant outcome being manifested by reduced service lead-time and service delivery. The organizational flexibility had, however, a negative relationship with performance with a coefficient of -0.291.

The delivery performance dimension of operations strategy was found to have the highest significant and positive effect on organizational performance with a $\beta=0.436$. The common form of delivery performance practiced by the organizations include having well documented timelines for service delivery and also adoption of technology in service provision. On the other hand, cost containment dimension was achieved among the organizations through adherence to the budget provision in a particular year as well as observance of statutory requirements released by the line ministries from time to time. Cost containment variable had a negative beta coefficient of 0.066 and at the same time had an insignificant effect on the performance of the organizations.

The findings reveal that the predictor variables did not have any effect on each other by virtue of the tolerance and variance inflation factor being within the allowable limits of less than 0.2 and 10 respectively. Similarly, since the Durbin Watson serial correlation test results 3.167, which is more than 2 implies that there is no serial correlation among the variables and hence making them appropriate for use in the research. From the model summary, it was found that the organizations operation strategy influenced 27.6% of the organization performance while other factors not considered in the study affected the performance to the extent of 72.4 %.

5.3 Conclusion

This research sought to investigate the effect of operations strategy on the performance of state corporations in Kenya. The findings reveal that operations strategy does affect organizational performance and more so delivery performance and operational flexibility. Similarly, service quality and cost containment had significant effect on the performance of the organizations and therefore, managers should not ignore the internal organizational competencies on performance even in public organizations that are not driven by the profit goal.

At the same time, the findings reveal that the operations strategy (service quality, delivery performance, operational flexibility and cost containment) dimensions influence slightly over a quarter of the organizational performance. This means that without losing focus on the stated operational performance variables considered, there is need for state corporations to consider determining the other variables that affect the performance of the state corporations influencing about three quarters of the organization's performance.

Based on these findings, it is concluded that the operational strategy of the firms is reliant on the adoption of technology in service provision. This is because adoption of appropriate technology during service delivery affects the firms' quality of service, delivery performance, cost management capacity and ability to adjust its operations to the changing demands. Therefore, technology adoption is a key facet in the operational strategy decisions.

5.4 Policy Recommendation

The research findings reveal that operational flexibility and delivery performance had a significant effect on performance and these variables were impacted by the automation process of the firms. Hence, it is recommended that public organizations consider automating most of their processes so as to meet the changing customer demands as well as to be able to offer their services within the allowable time and standards. Technology adoption is therefore necessary in the improvement of performance of state corporations.

The findings also suggest that the four operations strategy dimensions affects slightly over a quarter of organizational performance. This implies that apart from cost containment, delivery performance, flexibility and service quality, the performance of the firms is affected by other factors not considered in the present study. Managers should therefore consider directing their attention to other operational attributes relating to appropriate governance structures, leadership and improving on operational efficiency. Similarly, the research found out that organizations undertook limited employee training and hence it is recommended that the budget towards training and development be increased to improve the operational capacities of staff.

5.5 Limitations of the Study

The operations strategy variables considered in the study were only four yet there could be many more variables. This can explain the low degree that the variables were found to influence the organizational performance.

The scope of the research was limited to state corporations whose services are for the common public good and not financially motivated. As a result, less concentration was directed towards financial performance. Similarly, the study adopted a descriptive research design and therefore the findings cannot be generalized to other sectors in the country. However, despite the above stated limitations, the findings of this research will form an important reference material in other studies and policy decisions by managers and policy makers.

5.6 Suggestions for Further Research

In view of the limited scope of the study, it is suggested that another study be undertaken on profit oriented firms using the same variables to augment the current findings. Similarly, there is need to increase the operations strategy variables with a view to determine whether a change will be witnessed on the overall effect of operations strategy on performance in view of a low coefficient of determination value generated in this study.

It is also suggested that another study be undertaken that will adopt an inferential statistical measure to generalize the findings in other sectors and countries. The sample size might also be small and there is need to carry out a more comprehensive study that will involve more or all the parastatals in Kenya and involving more variables.

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APPENDIXES

Appendix I: Questionnaire

This questionnaire is designed to gather information on the effect of operations strategy on the performance of State Corporations in Kenya and is purely for academic purposes only. Kindly provide information to all items in the questionnaire by putting a tick (√) on one of the options. For questions that require your own opinion, fill in the blanks. (………………………….)

SECTION A: DEMOGRAPHIC INFORMATION

1. How many employees are in your organization?

a) Less than 200
b) 200 - 300
c) 300 – 400
d) 400 – 500
e) Over 500

2) What is the age of the organization?

a) Less than 10 years
b) 10 – 20 years
c) 20 – 30 years
d) 30 – 40 years
e) Over 40 year

SECTION B: OPERATIONS STRATEGY

Below are operations strategy dimensions. Please indicate the extent to which the dimensions below have influenced the organization's activities. Key:

5 - Very great extent
4 - Great extent
3 - Moderate extent
2 - Little extent
1 - No extent

a) Service Quality

`	**Statement**	**1**	**2**	**3**	**4**	**5**
1	The organization has well defined and documented operating standards and procedures.					
2	The organization has well defined and documented Service Level Agreements and charters.					
3	All stakeholder feedback is documented and acted upon.					
4	The organization has a well-established and documented quality control cycle					
5	The organization has well-documented terms of engagement with vendors/suppliers.					
6	Staff are regularly trained as per the Annual Training Plan.					

b) Operational Flexibility

	Statement	**1**	**2**	**3**	**4**	**5**
1	The organization has adequate staff to deal with varying demand needs.					
2	The organization has enough facilities to cope with the varying demands needs.					
3	The organization has embraced technology in its service delivery to cope with the changing customer needs.					
4	The organization manages its manufacturing lead time					
5	Customer perception surveys are done regularly to understand customer needs.					

6	The organization has launched a corporate plan in the last two years in line with changing business environment.					

c) Delivery Performance

	Statement	**1**	**2**	**3**	**4**	**5**
1	The organization has well documented time lines for service delivery.					
2	The organization has embraced government initiatives such as huduma centers in its service delivery.					
3	The organization has embraced technology in its service delivery.					
4	The organization has embraced a self-serve service delivery module.					
5	The organization has optimally decentralized its activities.					
6	The organization has set up fully functional call centers.					

d) Cost Containment

	Statement	**1**	**2**	**3**	**4**	**5**
1	The organization sets and adheres to a budget.					
2	The organization has embraced technology.					
3	All cost elements are clearly documented					
4	Organization structures are drawn and strictly adhered to.					
5	All statutory requirements are strictly adhered to and documented.					
6	Cost of doing business is within the stipulated percentage limits					

Section C: Organizational Performance

4. Below are organizational performance dimensions. Please indicate the extent to which the following dimensions have influenced the organization activities. Key:

5 - Very great extent
4 - Great extent
3 - Moderate extent
2 - Little extent
1 - No extent

To what extent has the operations strategy affected the performance of your organization?

a) Financial Perspective

	Statement	1	2	3	4	5
1	The organization has over the years met its financial targets.					
2	The organization completes its projects as per schedule and within set budget limits.					
3	The organization has completed all partnership and donor programs on time and within set cost limits.					
4	The cost of running operations/organizations has reduced.					

b) Learning and Growth Perspective

	Statement	1	2	3	4	5
1	Staff capacity/skills have been enhanced over time through structured trainings.					
2	Corporate culture has changed positively over time.					
3	Career progression has been embraced based on the promotion policy.					
4	The organization's integrity index has improved over time.					

c) Business Processes Perspective

	Statement	1	2	3	4	5
1	The organization has improved the quality of its services offered.					
2	The organization has attained ISO certification.					
3	The organization has improved its operational efficiency by embracing technology.					
4	The organization has improved its management of information and feedback.					

d) Customer Perspective

	Statement	1	2	3	4	5
1	The customer satisfaction has improved over time.					
2	The organization has enhanced stakeholder engagement.					
3	Penalties and lawsuits relating to non adherence to statutory laws have reduced over time.					
4	Customer complaints have reduced over time.					

THANK YOU SO MUCH FOR YOUR TIME.