INFLUENCE OF E-SERVICES STRATEGY ON THE PERFORMANCE OF PARASTATALS IN KENYA

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DECLARATION

This project is my own work and hasn't been provided to any other institution for the award of a degree or published in the past.

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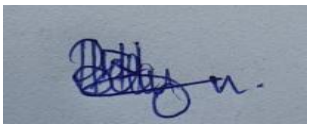

07/12/2020

Signature Date

The project herein has been submitted for the award of the Degree of Master of Business Administration in Strategic Management with my consent as the student's university supervisor.

DR. MERCY MUNJURI 07/12/2020

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I am grateful to the Almighty God for giving me life, strength and good health all which have made it possible for me to complete this project. I would also like to say thank you to my supervisor Dr. Mercy Munjuri and my moderator Prof. Martin Ogutu for guiding and supporting me through this project.

DEDICATION

This work is dedicated to my husband CPA Joseph Wechuli and my daughter Tainn Sydelle.

ACRONYMS AND ABBREVIATIONS

ANOVA: Analysis of Variance

CBK: Central Bank of Kenya

GDP: Gross Domestic Product

GOK: Government of Kenya

ICT: Information and Communications Technology

RBV: Resource Based View Theory

ROA: Return on Assets

SPSS: Statistical Package for the Social Sciences

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ABSTRACT

The general objective of this study was to determine the effect of e-services strategy on the performance of parastatals in Kenya. In particular, the study examined how strategies such as service flexibility, e-reporting, e-documentation and cost reduction affect the performance of the parastatals. The study was guided by resource-based view and technology acceptance theory. Resource-based view argues that a firm is able to attain competitiveness by offering quality and superior services and products to its customers. The RBV theory gives a good foundation for this study since it acknowledges that economic resources have the potential to influence e-service strategy adoption. Technology acceptance theory denotes that people have a desire to lower disharmony by changing their way of thinking, their practices and convictions of by either justifying or advocating for them. Technology acceptance theory was essential to the study because it holds that the perceived usefulness of any technological device is the main determinant of its use within a firm. The study was premised on a cross-sectional descriptive survey research design. A random sample of 65 parastatals was targeted. Primary data collected through a questionnaire was used. The data was analyzed using descriptive statistics and multiple linear regression. The results revealed that Kenyan parastatals implement e-service strategies to a large extent. In addition, it was found that each of the e-service strategies had a positive and significant effect on the performance of the parastatals. Based on these findings, it was concluded that e-service strategies facilitates creation of unique value and competitive advantage, which in turn leads to improvement in the performance of the parastatals. In this regard, the study recommends that parastatals conduct regular evaluations to gauge the satisfaction of the public with their services, revamping of the existing IT infrastructure and crafting of stricter policies geared towards protection of the citizens' private information.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The deployment of e-strategy is evident among leading institutions, sectors and industries; all with the aim of meeting the set goals and improve the overall performance (Campanella, & Vukovic, 2016). In organizations where the deployment has been effective, an integrated approach has been implemented to enhance firm overall performance and to monitor the changes within the market. According to Jamieson and Mourad (2016) e-strategy has been implemented by organizations to address the issue of performance since it transforms both internal and external relationships by using information communication technology.

The anchorage of the study was based on the RBV and technology acceptance theory. The RBV theory contends that a firm can only attain competitiveness by being innovative in providing greater value of products and services to its consumers. According to Wanerfelt (1984) the RBV theory argues that all organizations are made up of unique resources and capabilities. Extant literature explains that the RBV theory is more concerned on the approach firms can adopt to improve performance by maximizing on the already existing resources. The technology acceptance theory explains the computer acceptance determinants by customers. The theory explains the behaviour of technology users across a wide range of population and technology users (Wong, 2009).

Parastatals in Kenya are devoted to prudent utilization of resources at their disposal towards the realization of the set objectives as a way of enhancing performance and

satisfaction of all customers (Mugambi, 2017). These parastatals are created to meet social and commercial objectives. Parastatals are established for different reasons: to attain political and social goals; to offer health and education services; to redistribute the nation's income and establish marginal regions. According to a report by the government of Kenya (2018) parastatals contribute 20% of the nation's GDP by offering employment to approximately 300,000 people and 3.7 million people in the formal and informal sectors respectively.

1.1.1 E-Service Strategy

Barnes and Vidgen (2012) defines e-services as the services offered to customers through the use of ICT tools. On the other hand, Kumar and Srinivasan (2016) explains that e-service strategy is the use of IT to establish a system of performance that aligns the desire of the customer to their perception. On the other hand, Davis and Venkatesh (2016), defined E-services strategy as the services which use information and communication to execute management roles in firms.

Service provider, service delivery channel and service receiver are the three e-service components. For instance, in reference to public e-service; the service providers are the public agencies and the citizens are the service receivers. The main e-service delivery channel is the internet. Boyer (2012) contends that a system of e-service delivery involves the incorporation of IT. E-service involves the interaction of information where services reach its end user using electronic tools and systems. Boyer and Roth (2012) explain that at this point service providers use the gathered data to build a service system that ensures great customer experience. Hence, e-service strategy involves the adoption

of IT to build a system of service delivery that aligns the desires of the customers to their perception.

According to Barnes and Vidgen (2012) e-service strategy has different dimensions ranging from usability, design, trust and information empathy. In addition, Santos (2003) revealed that there are eleven e-service strategy determinants, namely: efficiency, content, support, incentive, security, layout, communication, structure, linkage and reliability. According to Boyer (2012) e-services offers a firm a chance to design and offer new services. In addition, extant literature explains that customers are more prone to purchase electronic services if they offer greater value than other types of services available (Boyer, 2012). The benefits of e-services include: minimizing the barriers to enter into a new market, increases the accessibility to a wide customer base, reduces the acquisition costs incurred by customers, offers alternative channels of communication with the customers, improves the perceived image of a firm, and enhanced customer service (Lu, 2011).

1.1.2 Firm Performance

According to Richard (2015) firm performance is the transformation of inputs to outputs meant to achieve a specific outcome. On the other hand, Timothy (2012), explains that performance is a subjective measure of how firms maximize resources to generate more revenue. This includes non-financial measures which do not include any monetary values as posited by Timothy, (2012). The common non-financial measures used include employee satisfaction, size of market share, number of new services/goods and quality of services/products offered. Often performance measures are perceived to be an indicator

of the financial performance in the future. On the other hand, current financial measures including the return on assets and earnings are often considered as trailing performance.

According to Adler (2016) the focus of performance by most firms is usually in the form of development, finances, operations, legal aspects and strategic planning. The performance of a firm evaluates operational output while modifying the operational process to increase the desired output and improve efficiency throughout the process. The performance of a firm is determined by calculating the value of performance factors. Hence, it is imperative that firms have the appropriate factors and have the knowledge on how to relate them to the goals set. Currently, firm managers consider firm performance by putting in the necessary work of defining the objectives of the firm, the indicators of performance and being able to evaluate the identified indicators.

1.1.3 Parastatals in Kenya

The establishment of Parastatals in Kenya was preceded by an Act of parliament among other written law that provided the legal foundation for the establishment. The parastatals are majorly owned by government or other state corporation (Wasike,2017). These parastatals are classified into broad categories including financial state parastatals, commercial and manufacturing, public universities and research facilities, regulatory, tertiary education and training. The state parastatals main purpose is to supplement development of social and economic goals (Omosa & Josiah, 2014). There are 187 parastatals in Kenya from all sectors.

In 2010, the parastatals in Kenya performed poorly resulting in an equivalent outflow of 1% of the GDP from the national government to the parastatals in 2011. In addition,

between the period 2010-2012, parastatals recorded direct and indirect subsidies amounting to Ksh. 7.2 billion and Ksh. 14.2 billion respectively. In 1994, parastatals received approximately 5.5% of the GDP as subsidies. The inflation in the state reflected the financed deficits by the Central Bank of Kenya (CBK).

Governments establish parastatals in areas which they consider to be of strategic importance and whose operations require more attention and focus or specialized knowledge and technical skills. Abubakar (2010) observes that unlike government operations, management of corporations is commercial or business oriented. They are expected to have; high performance, self-sustainability and compete effectively with other commercial or private enterprises in the economy undertaking similar functions or offering same services (Wasike, 2017).

1.2 Research Problem

E-service strategy gives organizations a unique chance to develop and offer new service design strategies. Now, all firms are able to compete equally by improving their service delivery channels. In addition, technology strategies are cheaper and have a wide reach to ensure firm performance is achieved (Hayes 2015). To achieve the performance, firms need to change with the changing times of adoption of technological services and e-service strategies to digitize most services, this increases the number of served customers per day hence being effective and efficient (Jamieson & Mourad, 2016).

Some parastatals in Kenya have embraced e-service strategies such as the implementation of widely circulated and communication network, creation of websites to display the performance achieved, integrated financial management information system, electronic

procurement and point of sale for purchase and retail transactions among others (GoK, 2018). However, parastatals in Kenya have reported some challenges including; nepotism, corruption and poor management (Rotich, 2018). Earlier, in financial year 2017/2018, parastatals had lost Kshs. 98,495,968.00 due to inefficiencies. This raises questions on the level of performance of parastatals in Kenya. The situation has resulted in theft, poor management and loss hindering sustainable performance.

Mixed results have been established by scholars researching relationship between e-services strategy and performance. Doherty, Shakur, and Ellis-Chadwick, (2015) in the United Kingdom reveled that e-retailers need to implement e-service strategies in order to offer great value to their customers. In Pakistan, Alsudairi (2012) targeted online banking system on it integration of e-service strategy to attain better performance. The study found that firms that offer their customers services of great quality, develop a long lasting relationship with the client thus resulting in sustainable performance.

Locally, Kipyegon (2015) assessed the influence of e-government strategy on the performance of Nairobi City Council in Kenya. The research revealed that the government needs to educate the citizens on the different values related to e-government so as to attain its goals. The study revealed that in order to understand e-government training must be conducted for its implementation to translate to better performance. Riany, Were, and Kihara (2018), studied the impact of e-government strategy on public service delivery performance in Kenya. The study findings revealed that implementation of e-Government evaluation audits result in significant performance improvement of the public industry in Kenya. Gisemba and Iravo (2019) analyzed the effect of e-government

services on performance in Nairobi district land registry, Kenya. The study established that enforcement and compliance of ICT policies could be improved through the top management commitment. The study did not clearly elaborate influence of e-service strategy on performance.

From the studies they only focused on e-government services and did not discuss e-service strategy and its influence on firm performance hence the conceptual gap. On the other hand, none of the studies focused on the parastatals in Kenya therefore there is an existing knowledge gap. Therefore, this research hopes to answer the question: What is the influence of e-services strategy on the performance of Parastatals in Kenya?

1.3 Research Objective

The main objective of the study was to establish the influence of e-services strategy on the performance of Parastatals in Kenya

1.4 Value of the Study

The contribution of the study to resource-based view is to enable firms to record better performance by maximizing on their available resources as emphasized by the RBV theory. The study provides the links between the a users intention of a technology and a user's perceived usefulness as a tool in the technology acceptance theory. In practice, the study findings contribute to prudent strategic management practices executed by top management at pparastatals. The research study is beneficial to parastatals managers and practitioners who are keen in a position to implement the study findings in making decisions in the future and identify the

areas of failure in the with regards to performance.

Policy makers both from the Parastatals are set to benefit from the study. Policy making on the grounds of research is increasingly becoming common. Research related to governmental activities is of interest to government. Informed policies with respect to research have a high potential to attain the desired objectives unlike policies that are not backed by research. Government authorities and agencies will benefit from the study to facilitate in achieving their objectives and respond to challenges experienced in adopting strategic management practices in improving performance of firms.

The study is also beneficial to scholars and academicians. The study lays a background for future studies relating to the adoption of e-service strategies by parastatals. Further, the study will contribute to literature in relation to e-service strategies and its correlation to performance of firms. To be specific this study aims to add to the past literature from a theoretical, methodological and practical approach.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This shows a review of existing knowledge in relation to e-strategy and performance. It presents the discussion on the theoretical foundation. It also highlights the reviewed literature summary, research knowledge gaps and the conceptual review

2.2 Theoretical Underpinning the Study

The anchorage of the research was grounded on: resource based view theory and the technology acceptance model.

2.2.1 Resource-Based View (RBV)

The RBV theory was proposed by Wernefelt (1984). The theory argues that a firm is able to attain competitiveness by offering quality and superior services and products to its customers. According to Borg and Gall (2009) the theory emphasizes on the need to strategically use resources in order to gain a competitive advantage. Extant literature reveals that a firm's success or failure can only be attained by being aware of competitiveness in the business environment and the strategies to form effective alliances in an emerging market. Gupta (2011) noted that value can be conceptualized by assessing local alliances in relation to the local demands. The theory is grounded on the basis that resources are the inputs into activities of production in a firm and can be divided into human, physical, organizational and capital resources.

The theory is essential to this study since it acknowledges that economic resources have the potential to influence e-service strategy adoption. The theory forecasts that resources are critical to firms and their implementation of policies to better customer service delivery (Pfeffer & Salancik, 2003). The theory further explains that the effect of economic resources is a key determinant of service delivery quality by firms than the sector by making a comparison of results across multiple analysis levels. A firm's competitive advantage is attained through competencies development. Barney (2001) contends that firms have managed to improve their performances by effectively using the available resources. Over the years, the theory has gained wide acclaim and has been adopted by researchers such as Koumaditis et al., (2013) when assessing firms on the grounds of their resource base. The recourse-based view has few weaknesses that it has no managerial implications to organizations, the theory also implies that there exists an infinite regress in organizations. On the other hand, the theories applicability has been argued by Boyer and Roth (2012), to be too limited such that that it cannot apply in all organizations. Similarly, Chambers, (2015), also noted a weakness in the concept of sustainable competitive advantage which cannot be achieved, and the resource value is indeterminate to offer an effective theory.

2.2.2 Technology Acceptance Theory

The technology acceptance theory was first put forward by Davis (1989). Bilgihan (2011) came up with the intellectual discord hypothesis that suggests that people have a desire to lower disharmony by changing their way of thinking, their practices and convictions of by either justifying or advocating for them. This theory was advanced to identify the

origin of pressure; which was determined to be brought about by two or more incompatible factors with individuals' beliefs, ideas, and opinions. According to McLeod (2007) technology only exists when the cognitive beliefs, opinions and ideas of people are challenged, hence the necessity to lower the level of discomfort.

The theory is essential to the current study since it depicts the correlation that exists between the intentions to use information systems whose perceived usefulness is greater than its perceived ease of use. Therefore, the theory holds that the perceived usefulness of any technological tool/device is the main determinant of its use within a firm. The theory aims to attain these objectives through the identification of critical changes in firms that deal with affective and cognitive determinants of acceptance of the use of computers, thus, creating effect in strategic change management as explained by Mary (2008).

A limitation of the theory is the way in which user behaviour is assessed through subjective techniques such as users' intentions (interpersonal influence). Nevertheless, Osman and Abdullah (2016) observes that interpersonal influence as a subjective means can be perceived as when an individual is influenced by word of mouth from friends or colleagues. While high-ranking personnel in a firm is able to influence the behaviour of a subordinate by directing them to conduct particular tasks using technology, with consideration to the policies put in place, a collogue has no direct say or impact to an employee who reports to managers. Shan and King (2015) also noted that the theory is weak since the underlying behaviour of users cannot be quantified reliably due to the varying subjective factors including societal values and norms, individual personality and

attitudes. Hence, it is argued that friends have the potential through social pressure to influence the use of specific technology.

2.3 E-Service Strategies and Firm Performance

In IT, e-service strategy is a tool that ensures that the desires of the customers' match with the perception of the customer towards a specific service. Parker (2015) contends that an important feature to effective e-service strategy is assisting in improving the business experiences of the customers. The benefits of e-services include: minimizing the barriers to enter into a new market, increases the accessibility to a wide customer base, reduces the acquisition costs incurred by customers, offers alternative channels of communication with the customers, improves the perceived image of a firm, and enhanced customer service. The different categories of e-service strategy are: e-service flexibility, e-reporting, e-documentation, and cost reduction strategy.

2.3.1 Service Flexibility Strategy

Adler (2016) states that flexibility is an effective tool adopted to gain competitive advantage and in particular in relation to making decisions on the adoption and implementation of certain technologies. According to Slack (2017) the vision of firm managers with regards to flexibility is often incomplete and partial. This is because, often, managers pay more attention to the flexibility of the machine than the entire flexibility system. Gupta and Sommers (2016) argued that a competitive edge cannot be achieved if flexibility only targets the implementation of technology. Hence the need to have a working plan in place and be managed efficiently while considering the whole flexibility system.

From the discussed concept of flexibility, a major challenge in establishing flexible systems of operations is evident when focus and management is directed to the different flexibility dimensions (Gerwin, 2013). This is attributed to the ideology that flexibility is not accumulative, hence greater flexibility in the varying parts of a system do not necessarily mean flexibility of the whole system. Flexibility changes are strategic, as such they not only cover process engineers but also business and production managers as explained by Chambers (2015). Operations strategy establish the uncertainty level that can be supported by a system of service delivery by incorporating the different dimensions of flexibility to the changes in the environment.

2.3.2 E-Reporting Strategy

E-reporting involves the use of both software and hardware to record and transmit data. Adler (2016) observes that although some elements of e-reporting are recorded automatically, it is usually perceived to be an open system that accepts manual inputs also from port measures, skippers and observers. Globally, e-reporting has been introduced in emails on-board collection of data by researchers and in length frequency measurements of survey and catch reports. This information must be gathered using formal techniques to meet the scientific and management needs.

E-reporting is a tool implemented to configure the formats of outgoing and incoming e-documents with respect to the legal requirements in different regions and states (Boyer & Roth, 2012). Firms are able to implement new requirements of the law and generate business documents in the desired formats to exchange the information electronically with other parties including banks and the government.

2.3.3 E-Documentation Strategy

E-document is defined as any electronic media content except system files or computer programs that is intended to be utilized while it is in its electronic form or printed form. According to Boyer and Roth (2012) e-document is the data recorded in a way that required an e-device to display the data, interpret it and process it. This entails documents generated by a software and stored on optical media or magnetic media (disks): it also includes electronic documents and mail transmitted using an electronic document. Contrary, to hard copy formats of documents, an e-document can contain non-linear (non-sequential) data as hypertexts which are linked by hyperlinks.

E-documentation offer more timely and accurate data documentation. it saves on time, lowers the chances for errors, and improves of provider's efficiencies. In firms, e-documentations reduces the rate of repeating unnecessary procedures while improving coordination. This reduces the expenses in the firm and facilitates quality services. Wirtz and Lovelock (2016) explains that the ability of firms to use e-documentation in the exchange of information with other providers and systems is critical in guaranteeing information completeness and continuity and service continuity as well.

2.3.4 Cost Reduction Strategy

According to Miller (2015) cost reduction strategy is formulated once technology is adopted to lower the operational costs and improve differentiation. Akande and Yinus (2013) argues that IT is at the center of gaining a competitive advantage by firms since it positions the firm in the business market. According to Barnes (2013) firm managers that are keen on implementing cost reduction strategy focus their efforts on enhancing

productivity while reducing costs by: ensuring stable process f production with limited interruption, maximizing on resources, looking for new opportunities to streamline production, ensuring the equipment and facilities in the firm are updated, offering employee training and development to improve on staff skills. For the optimization of services, managers in firms need to use facility layout and design. The use of IT in layout and design increases the capacity of firm in coordinating its activities, hence reducing the cost of production (Sarkar, 2012).

According to Huber (2016) the emergence of new systems development and advancements of the web have the potential to improve the external and internal communications of a firm. Reduced costs of information processing lead to efficient process adjustment and coordination thus improving the performance of firms. Further Barnes (2013) argues that the effects of performance need to be pronounced in firms so as to effectively implement decentralized techniques of strategic decision making.

2.3.5 Measures of Firm Performance

Invaluable information can be obtained from performance measures. This information can help managers to monitor a firm's performance improve communication and motivation and report on any progress. Fernandes, Raja, and Whalley (2016) explained that performance denotes how a firm executes its activities. Performance can be quantified either financially or non-financially. Financial performance is the commonly used by firms to assess performance, since it focusses on the monetary indicators of a business. On the other hand, non-financial measures are not expressed in form of

monetary values; and include: customer and employee satisfaction, quality and productivity (Akande & Yinus, 2013).

Income statements and balance sheets are commonly used to measure financial performance. In addition, financial measures of performance can be perceived as historical/lagging measures since they show a clear picture of activities undertaken by a firm (Gomes & Lisboa, 2015). Financial measures include return on investments (ROI) and return on assets (ROA) Non-financial measures on the other hand are perceived to be leading measures since they indicate the actual process of performance as it is in progress (Adler, 2016). This study will adopt the two performance measures. Firm performance in the current study will be measured using non-financial measures (efficiency, effectiveness, and customer retention) and financial measures (ROI and ROA).

2.4 Empirical Literature and Research Gap

Arvidsson (2010) in Russia studied the model for the use of strategic e-service within the public sector with the aim of improving performance. The model ensures the implementation of technology in the work environment while making consideration of measures to lower the level of intricacy including: exploiting the available data, incremental filtering and moving the more intricate elements to the end process. This enables a firm to capture the both the low hanging fruit and long tail of services.

In South Tehran, Rostami, Khani and Soltani (2016), analyzed the influence of e-service quality of banks performance. The study targeted the customers of Bank Melli branches. Since the population was large, random sampling was conducted to provide an optimal sample. Using the Cochran's theorem, the study sampled 384 customers. A structured

questionnaire was employed to gather data. The research outcomes revealed that appositive and significant correlation existed between e-service quality and the communication level with the customers.

Karabulut (2015) in Turkey analyzed the effect of e-service innovation strategy on manufacturing firms' performance. The data collected using a questionnaire instrument was analyzed using multiple regression and factor analysis. The research revealed that the innovation strategy explained more on the financial aspect of performance rather than the other non-financial aspects of performance. The research concluded that innovation strategy in the manufacturing firms in Turkey resulted to improved financial performance. In Vietnam, Nguyen (2016) assessed e-government service quality. Quantitative and qualitative data was gathered using an interview guide and a questionnaire. The study revealed a new technique in evaluating e-government services quality from the view of suppliers and customers by assessing the service, organizational and information quality.

In Kenya, Nderitu (2018) assessed the impact of e-commerce strategy on beauty product businesses performance in Naivasha. The research sampled 65 respondents. A questionnaire and interview guide were employed to gather data. Descriptive analysis was employed in particular the use of descriptive statistics and correlation coefficients. The study outcomes revealed that e-payments was positively and significantly correlated to the performance of beauty product businesses in Naivasha.

Additionally, Mutinda (2017) analyzed the relationship between e-government and performance in Nairobi County. The research employed a descriptive design. It targeted

296 employees in Ministries in Nairobi County. Questionnaires were distributed to a sample of 165 respondents. How the variables related was tested using regression analysis. The research findings indicated that the use of online transactions was secure, it facilitates timely collection of revenue and the automation of front and back office operations. Onyiego (2016) evaluated strategies of e-service operations and performance within tour operator firms in Nairobi County. The research employed a descriptive design on a sample size of 35 firms. Questionnaires were dropped to the respondents and picked latter during the process of data collection. Both MS Excell and SPSS helped in data analysis. The study found that there exists a significant correlation between strategies of e-service operations and performance. The study looks at 4 strategies, namely; service flexibility, delivery speed, cost reduction and quality enhancement strategies.

Mungai (2017) evaluated the implementation of e-government strategy and Kenyan public sector performance. The research employed a positivism orientation approach. Both explanatory and descriptive designs were adopted. The study targeted 13,228 participants who included administration directors, supervisors of customer care departments and heads of ICT departments. Descriptive analysis was employed for the research. The research revealed that institutional framework of e-government influences the performance of Nairobi public sector.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

Chapter three highlights the research methods of the study. It also highlights the study population, methods and measurement of data survey, and data analysis.

3.2 Research Design

A research design is a framework or blueprint with detailed set of procedures regarding gathering, measurement and analysis of data in a research project (Kothari, 2004). A descriptive design was employed for the study to assess the relationship between E-service strategies and performance. As explained by Cooper and Schindler, (2011), descriptive design describes the variables of the research.

Descriptive design is beneficial in assessing the characteristics of specific phenomenon of a large population. In addition, Mugenda and Mugenda (2011) explained that descriptive design ensures high reliability of the research instruments used. The study aimed to provide the relationship between the study variables service flexibility strategy, e-reporting strategy, e-documentation strategy and cost reduction strategy and firm performance.

3.3 Target Population

A population is entire collection of elements in a study. Sekaran (2005) explains that the target population is a set of events, groups, services and individuals that a researcher is

studying. The study focused on parastatals in Kenya. According to GOK (2019), there are 187 parastatals in Kenya.

3.4 Sample Size

A sample size represents how many respondents chosen from the entire target population to take part in a research (Cooper & Schindler, 2011). A probabilistic approach of simple random sampling was employed. This sampling method gives equal chance for the target respondents to be selected to take part in the research. The criterion of the sampling method holds that each respondent must be selected randomly. The composition of the sample is not a determinant on the randomness of the process (Kothari, 2008). The Yamane formula allowed for the coming up with a study sample. The formulae generated a sample that would represent the entire population. The formula is as follows:

$$n = N/ (1 + N (e)^2)$$

Where,

n is the research sample size

N is the total population being studied

e is precision level (10%)

Therefore, n will be $= 187/ (1+187 (0.10)^2)$

$= 65$

For this research, the sample size used was 65 parastatals.

3.5 Data Collection

The study made use of structured questionnaire to gather primary raw data. The questionnaires were distributed to the service managers and ICT managers and in the parastatals or their equivalent and picked later. Superior response compatibility was guaranteed since the questionnaires would allow uniformity of all questions. According to Brotherton, (2008) using a structured questionnaire is effective since it allows for consistency in questionnaire responses. A five point Likert scale was adopted in the development of the structured questionnaires. The data gathering instrument had three sections, section A consisted of questions on organizations characteristics, section B covered e-service strategies while section C covered firm performance.

3.6 Data Analysis

Data analysis includes several activities performed with an aim of making a summary of the data gathered and consolidating then to respond the set research questions (Sekaran (2005). The data composed was analysed using both inferential and descriptive statistics. The process of data analysis included a number of stages: the editing of the filled questionnaires to ensure consistency and completeness, looked into omissions and errors. The research produce quantitative data

Descriptive statistics were employed to obtain quantitative data using SPSS version 25.0. Tables and graphs were adopted for the presentation of the findings. Multiple linear regression was employed to reveal the relationship between service flexibility strategy, e-reporting strategy, e-documentation strategy and cost reduction strategy and performance of Parastatals in Kenya.

The regression model is as provided below;

$Y=\beta_0+\beta_1X_{1+}\beta X_2+\beta_3X_3+\beta_4X_4+\varepsilon$

Y= Performance

$\beta_{0=}$Constant

$X_{1=}$ Service Flexibility Strategy

$X_{2=}$ E-Reporting Strategy

$X_{3=}$ E-Documentation Strategy

$X_{4=}$ Cost Reduction Strategy

β_1 -β_4 are the regression co-efficient

ε is the random error term

To test significance level of variance the one-way ANOVA was used. The test aims to establish the significance of variations between the research variables.

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CHAPTER FOUR

DATA ANALYSIS AND DISCUSSION

4.1 Introduction

This forth chapter will give the results acquired after the analysis process. The first section of this chapter gives the response rate report from the data gathering questionnaires. The reliability and validity of the multi-item construct measures employed in the questionnaire are then examined. Next, background information regarding the parastatals is given using descriptive statistics. From the given profile of the parastatals, the manifestation of the interest variables is looked into. This in turned followed by a presentation of the results of inferential statistics conducted using regression modeling. The last section discusses the relation between the study outcomes and past study findings.

4.2 Response Rate

The rate of response from the distributed questionnaires was determined to assess if the data provided was adequate and representative in the making of conclusions. A research response rate is defined as the number of participants who gave responses to the questions on the research tool or who filled and gave back the data collection tool. This number is compared to the number of eligible respondents (Burns & Grove, 2011). From the research results, here's the detailed response rate in Table 4.1.

Table 4.1: Response Rate

Response Status	Number of Participants	Percent (%)
Completed	62	95.38
Did not complete	3	4.62
Total	**65**	**100.00**

Source: Researcher (2020)

As shown in Table 4.1 number of questionnaires given out was 65. From these, 62 were filled and given back which gives a response rate of 95.38%. The other three respondents did not start the survey or did not complete a good portion of the questionnaire. Bryman and Bell (2014) provide that a satisfactory rate of response ought to be 50% as this rate can be used to make statistical findings. A 60% rate of response is also good while anything above 70% and above is excellent. From this analysis, the study's rate of response is excellent and it's enough to give meaningful and reliable results.

4.3 Reliability Test Results

The survey questionnaire had five scales to determine the results based on the variables under study. The scales for service flexibility strategy, e-reporting strategy, e-documentation strategy and cost-reduction strategy contained 6 items each. Firm performance, the dependent variable, consisted of 13 items. Cronbach's alpha helped assess reliability (internal consistency) of the noted scales. The resulting coefficients are as given in Table 4.2.

Table 4.2: Reliability Statistics

Variable	Cronbach's Alpha	No. of Items
Service flexibility strategy	0.721	6
E-reporting strategy	0.708	6
E-documentation strategy	0.821	6
Cost-reduction strategy	0.781	6
Firm performance	0.736	13

Source: Researcher (2020)

As shown in Table 4.2 outcomes, the Cronbach alpha value was ranging between 0.708 and 0.821. Hair, Black, Babin and Anderson (2013) provide that when the values of alpha are more than 0.6, it's prudent to conclude that the results are reliable. Therefore, the scales for service flexibility strategy, e-reporting strategy, e-documentation strategy, cost-reduction strategy and firm performance signify an overall reliable instrument.

4.4 Validity Test Results

Face validity helped in the determination of the questionnaire validity. The researcher consulted three University of Nairobi experts in the current study area and requested them to look into the questionnaire. The tool questions correctness and relevance to the research objectives was determined and the viewpoints given by these experts were taken into consideration. From the given opinions, relevant changes on the data collection instrument were made.

4.5 Background Information

This part gives the characteristics of the organizations used in this study. The background data solicited related to the number of employees, age of the organization and the tenure

of the respondents. To give a summary of the data, frequencies and percentages were provided.

4.5.1 Number of Employees

The respondents were requested to give the number of employees working in their respective organizations. Response analysis was done using percentages and frequencies. Table 4.3 is an indication of the parastatals number of employees.

Table 4.3: Distribution of Parastatals by Number of Employees

No. of Employees	Frequency	Percent (%)
21-30	4	6.45
31-40	10	16.13
41-50	11	17.74
51 and above	37	59.68
Total	**62**	**100.00**

Source: Researcher (2020)

The results show the sample of the study comprised of parastatals of varying sizes. Tin particular, the results show that more than half of the parastatals (59.68%) had more than 51 employees while 17.74% had between 41 and 50 employees. Notably, only 6.45% of the corporations indicated they had 21 to 30 employees. These results reveal that most Kenyan parastatals are relatively large.

4.5.2 Age of the Parastatals

The participants were requested to provide the years the corporation had been in operation. Summarized responses were given. The outcome is shown in Table 4.4.

Table 4.4: Distribution of Parastatals by Age

No. of Years	Frequency	Percent (%)
Below 5 years	3	4.84
6-10 years	4	6.45
11-15 years	6	9.68
16-20 years	9	14.52
21 years and above	40	64.52
Total	**62**	**100.00**

Source: Researcher (2020)

As seen in Table 4.4, majority of parastatals (64.52%) had been in operation for more than 21 years while 14.52% operations had been ongoing for 16 to 20 years. Only 4.84% of the parastatals had been operation for less than 5 years. Given that age strongly correlates with organizational maturity, it can therefore be argued that a majority of the organizations had been in operation long enough for the variables of interest in this study to mature within them.

4.5.3 Tenure of the Respondents

The participants were requested to give the years they had worked in their current workplaces. The summarized responses were given using frequency counts. The responses are as given in Table 4.5.

Table 4.5: Distribution of Respondents by Tenure

No. of Years	Frequency	Percent (%)
Below 5 years	12	19.35
6-10 years	31	50.00
11-15 years	9	14.52
16-20 years	6	9.68
21 years and above	4	6.45

Total	**62**	**100.00**

Source: Researcher (2020)

A great proportion of respondents had been in their current workplaces for 6 to 10 years (50%). The other notable proportion had been employees in their current firms for up to 5 years (19.35%). Minimal workers had been employed in their current workplaces for at least 21 years 5 (6.45%). This is enough evidence that the participants had been in their current parastatals long enough to give sufficient and reliable answers to the queries relate e-services strategy and organizational performance in these firms.

4.6 Manifestation of Study Variables

The outcomes from the descriptive statistics related to variables being studied are presented which provides the way these variables were manifested in the research. The variables focused on were; service flexibility strategy, e-reporting strategy, e-documentation strategy, cost-reduction strategy and performance. Mean and standard deviation helped give summaries of the survey findings.

4.6.1 Service Flexibility Strategy

The respondents were expected to show their agreement levels to given statements probing the implementation of service flexibility strategies within their organizations. The responses were interpreted using a 5-point Likert scale with a score of 1 representing 'Not at all' with a statement and 5 showing 'to a very large extent.' The results were computed and the responses given in Table 4.6.

Table 4.6: Service Flexibility Strategy

Service Flexibility Strategy	Mean	Std. Deviation
To attain the firm goals, service workflow is emphasized in the parastatal	4.20	0.82
The set objectives of the parastatal guide the activities of the organization	4.27	0.71
The parastatal has implemented unique types of flexibility not commonly practiced by other business processes	4.38	0.51
Interaction flexibility is emphasized in the parastatal	4.31	0.91
New forms of firm flexibility have been adopted by the parastatal	4.35	0.80
In modern economies firm flexibility is important	4.29	0.75
Overall Mean	**4.30**	

Source: Researcher (2020)

Table 4.6 indicates the total mean score for all the items assessing service flexibility was 4.3, which falls above the Likert score of 4. This is an indication that service flexibility strategies in Kenyan parastatals are implemented to a large extent. The item, 'The parastatal has implemented unique types of flexibility not commonly practiced by other business processes' had the highest average score of 4.38 (SD=0.51). This shows that uniqueness features highly in service flexibility strategies in efforts to enhance the competitive edge of the parastatals. The statement also had the lowest standard deviation implying there was broader agreement in the participants' responses. The next top ranked statement was, 'New forms of firm flexibility have been adopted by the parastatal' with a mean score of 4.35 (SD=0.80).

The third top ranked item was, 'Interaction flexibility is emphasized in the parastatal' with a mean rating of 4.31 (SD=0.91). Closely following this item were the statements,

'In modern economies firm flexibility is important' and, 'The set objectives of the parastatal guide the activities of the organization' which had mean scores of 4.29 (SD=0.75) and 4.27 (SD=0.71) respectively. The statement, 'To attain the firm goals, service workflow is emphasized in the parastatal' had the lowest mean rating of 4.2 (SD=0.82), an indication that emphasis on service workflow is not a prominent concern when it comes to service flexibility strategies. Further, the item, 'Interaction flexibility is emphasized in the parastatal' had the highest standard deviation of 0.91signifying high variability in the participants' responses.

4.6.2 E-Reporting Strategy

The respondents gave responses related to different aspects of e-reporting strategies practiced in their organizations. The results were interpreted using a 5-point Likert scale with the results range being 1 (Not at all) to 5 (Very large extent). Table 4.7 gives these responses and their averages and standard deviations.

Table 4.7: E-Reporting Strategy

E-reporting Strategy	**Mean**	**Std. Deviation**
The organization records information for future use	4.03	0.72
Quality reports are produced by the parastatal	4.05	0.79
Real-time feedback is practiced in the parastatal	4.17	0.86
A unique e-reporting system has been developed by the parastatal	4.23	0.87
Faster responses is attained through the use of e-reporting in the parastatal	4.20	0.91
In the parastatal, e-recording and e-reporting systems have improved performance.	4.15	0.88
Overall Mean	**4.14**	

Source: Researcher (2020)

Table 4.7 gives the total mean score for all the e-reporting strategy was 4.14, implying that Kenyan parastatals implement e-reporting strategies to a large extent. The results also show that most of the responses were in agreement that, 'An unique e-reporting system has been developed by the parastatal' which had a mean rating of 4.23 (SD=0.87). This implies that Kenyan parastatals ascribe high level of uniqueness to their e-reporting strategies. The next top rated item was, 'Faster responses is attained through the use of e-reporting in the parastatal' with a mean score of 4.2 (SD=0.91). The statement also had the highest standard deviation meaning there was high variance in the participants' responses. The third top ranked statement was, 'Real time feedback is practiced in the parastatal' with an average rating of 4.17 (SD=0.86). This implies that the e-reporting strategies implemented in Kenyan parastatals allow the tracking of services in real-time.

Closely following this statement in terms of ranking were the items, 'In the parastatal, e-recording and e-reporting systems have improved performance' and, 'Quality reports are produced by the parastatal' which had average scores of 4.15 (SD=0.88) and 4.05 (SD=0.79), respectively. The least ranked statement was. 'The organization records information for future use' which had a mean score of 4.03 (SD=0.72). This statement was also linked to the lowest standard deviation, an indication of high agreement levels among the participants.

4.6.3 E-Documentation Strategy

The participants were asked to show their degree of agreement with provided statements examining the nature of e-documentation strategies in their organizations. The results

interpretation was on a Likert scale with a range of 1 (Not at all) to 5 (Very large extent). Table 4.8 indicates the results from the responses.

Table 4.8: E-Documentation Strategy

E-documentation Strategy	Mean	Std. Deviation
In the parastatal, information is well distributed	4.11	0.62
The accessibility of information has improved with the adoption of e-documentation	4.14	0.67
The information security in the parastatal has improved with the implementation of e-documentation	4.04	0.81
The challenge of incompatible file formats has been experienced with the adoption of e-documentation in the parastatal	3.95	0.77
E-mails are used to communicate in the parastatal	4.24	0.60
The e-documents in the parastatal are user protected since they require a user agent prior to presenting the content.	4.20	0.82
Overall Mean	**4.11**	

Source: Researcher (2020)

As shown in Table 4.8, the total mean for all the items under e-documentation strategy stood at 4.11. This implies that Kenyan parastatals have adopted e-document strategies to a large extent. It is also apparent from the results that the statement, 'E-mails are used to communicate in the parastatal' received the highest rating of 4.24 (SD=0.60). This implies that use of e-mail communication features as the most dominant documentation in Kenyan parastatals. In addition, there was a large unanimity among the respondents with this statement given that it had the lowest standard deviation. The second most rated item was the statement, 'The e-documents in the parastatal are user protected since they require a user agent prior to presenting the content' with an average rating of 4.2

(SD=0.82). There was also high variance in the participants' responses given the statement had the highest standard deviation. Next, was the statement, 'The accountability of information has improved with the adoption of e-documentation' with a mean rating of 4.14 (SD=0.67). Closely following this item, were the statements, 'In the parastatal, information is well distributed' and, 'The information security in the parastatal has improved with the implementation of e-documentation' which had mean scores of 4.11 (SD=0.62) and 4.04 (SD=0.67). The least ranked item was, 'The challenge of incompatible file formats has been experienced with the adoption of e-documentation in the parastatal' which had an average rating of 3.95 (SD=0.77). This shows that e-documentation strategies in Kenyan parastatals face few data incompatibility issues.

4.6.4 Cost Reduction Strategy

The respondents were also asked to rate the different cost-reduction strategies employed in their organizations. The outcomes were based on a Likert scale from a range of 1(Not at all) to 5 (Very large extent). These responses were analyzed descriptively and the results are as shown in Table 4.9.

Table 4.9: Cost Reduction Strategy

Cost Reduction Strategy	Mean	Std. Deviation
The service maintenance costs are high in the parastatal	4.18	0.66
The parastatal records low operational costs	2.27	0.71
Accountability and transparency in relation to finances and services has improved with the adoption of electronic services	4.14	0.78
In the parastatal, the maintenance cost of applications is high	4.16	0.86
In the parastatal, the main e-service delivery channel is the Internet	4.07	0.69
Electronic services have resulted in easier access of services	4.21	0.58
Overall Mean	**3.84**	

Source: Researcher (2020)

Table 4.9 indicates that the overall mean score for all the statements was 3.84, which implies that Kenyan parastatals have cost-reduction strategies in place. It is also evident that the highest ranked statement was, 'Electronic services have resulted in easier access of services' which had a means core of 4.21 (SD=0.58). This has the implication that cost-reduction strategies adopted by Kenyan parastatals prioritize the accessibility of services. This statement also reported the lowest standard deviation signifying high consensus in the participants' responses. The next top rated item was, 'The service maintenance costs are high in the parastatal' with an average rating of 4.18 (SD=0.66). The third highest ranked statement was, 'In the parastatal, the maintenance cost of application is high' which had a mean score of 4.16 (SD 0.86). This statement also had the highest standard deviation, an indication that there was high variability in the participants' responses. This statement was closely followed by, 'Accountability and transparency in relation to finances and services has improved with the adoption of electronic services' and, 'In the parastatal, the main e-service delivery channel is the Internet' which had average scores of 4.14 (SD=0.78) and 4.07 (SD=0.69), respectively. Further, the results show the least ranked statement was, 'The parastatal records low operation costs' which had an average rating of 2.27 (SD=0.71). This shows that cost reduction strategies in Kenyan parastatals are designed to meet the high operation costs.

4.6.5 Firm Performance

The participants were further requested to report on their agreement degree to statements exploring the performance of their organizations. The outcomes were captured on a

Likert scale offering ranges from 1 (Not at all) to 5 (Very large extent). These responses were then analyzed using mean and standard deviation as given in Table 4.10.

Table 4.10: Performance

Firm Performance	Mean	Std. Deviation
Efficiency		
The organizational goals are achieved on time	4.15	0.61
The parastatal has adapted to the environment and technology	4.12	0.67
The parastatal's communication is faster	4.14	0.71
Effectiveness		
There is accountability in every department	4.18	0.77
The workforce performance in the parastatals is good	4.13	0.52
Our employees are experienced	4.16	0.63
Customer retention		
We have an existing customer growth rate	4.20	0.71
Our customers return for our services	4.17	0.66
We have new subscribers on daily basis	4.11	0.58
Return on Investment		
The amount of return on a particular investment sustains the firm	4.09	0.81
Returns are obtained from the sale of the investment of interest	4.05	0.72
Return on assets		
The services offered by the firm generate revenue	4.08	0.85
Return on assets gives the firm management, an idea as to how efficient the parastatal is	4.02	0.77
Overall Mean	**4.13**	

Source: Researcher (2020)

The overall mean score of all the items was 4.13 an indication that to a large extent that the parastatals were performing well. In regard to efficiency most respondents were in agreement with the statement, 'The organization goals are achieved on time' which had a mean score of 4.15 (*SD*=0.61). This reveals that the efficiency of Kenyan parastatals is

predominantly characterized by timely achievement of organizational goals. Closely following this item were the statements, 'The parastatal's communication is faster' and, 'The parastatal has adapted to the environment and technology' which had mean scores of 4.14 (*SD*=0.71) and 4.12 (*SD*=0.67).

As pertains to effectiveness, a vast number of respondents were in agreement to a large extent with the statement, 'There is accountability in every department' which had a mean rating of 4.18 (*SD*=0.77). This outcome reveals that the effectiveness of Kenyan parastatals is highly marked by accountability when it comes to delivery of services. The statement was followed by, 'Our employees are experienced' and 'The workforce performance in the parastatals is good' which had mean ratings of 4.16 (*SD*=0.63) and 4.13 (*SD*=0.52), respectively. The ranking of these two statements shows that the work experience and output of employees in Kenyan parastatals is adequate.

With respect to customer retention, the top rated item was, 'We have an existing customer growth rate' linked to an average score of 4.2 (*SD*=0.71). This shows that Kenyan parastatals perform well when it comes to retaining and attracting new customers. Next in terms of ranking were the statements; 'Our customers return for our services' and, 'We have new subscribers on a daily basis' which had mean scores of 4.17 (*SD*=0.66) and 4.11 (*SD*=0.58). The average scores of these two statements show that Kenyan parastatals are able to generate loyal customers.

In connection to return on investment, the results show that the statement, 'The amount of return on a particular investment sustains the firm' had the highest mean rating of 4.09 (*SD*=0.81). The statement, 'Returns are obtained from the sale of the investment of

interest' had a mean score of 4.05 (*SD*=0.72). With respect to the return on assets, the highest ranked statement was, 'The services offered by the firm generate value' with a mean score of 4.08 (*SD*=0.85). Next was the item, 'Return on assets gives the firm management, an idea as to how efficient the parastatal is' with an average score of 4.02 (*SD*=0.77). These results reveal that Kenyan parastatals perform well in terms of generating revenue and returns on investments.

4.7 Regression Results

This section focuses on the results obtained from testing the relationships concerning patterns of association between the variables of interest. Of key interest are the results of linear regression modeling. These results were meant to nuance the findings obtained in the previous section.

4.7.1 Diagnostic Tests

As previously mentioned, linear regression was used to assess this study's objectives. Therefore, prior to application of this technique the underlying assumptions of linear regression were assessed. These assumptions include; linearity, normality, muticollinearity and homoscedasticity.

4.7.1.1 Linearity

Linearity is the assumption that the predictor variables and the outcome variable do relate (Hair et al., 2013). In other words, a straight line can most accurately represent the association between an independent and dependent variable. This assumption was

evaluated using scatterplots. Figure 4.1 shows a scatterplot between the construct index of service flexibility strategy and composite index of performance.

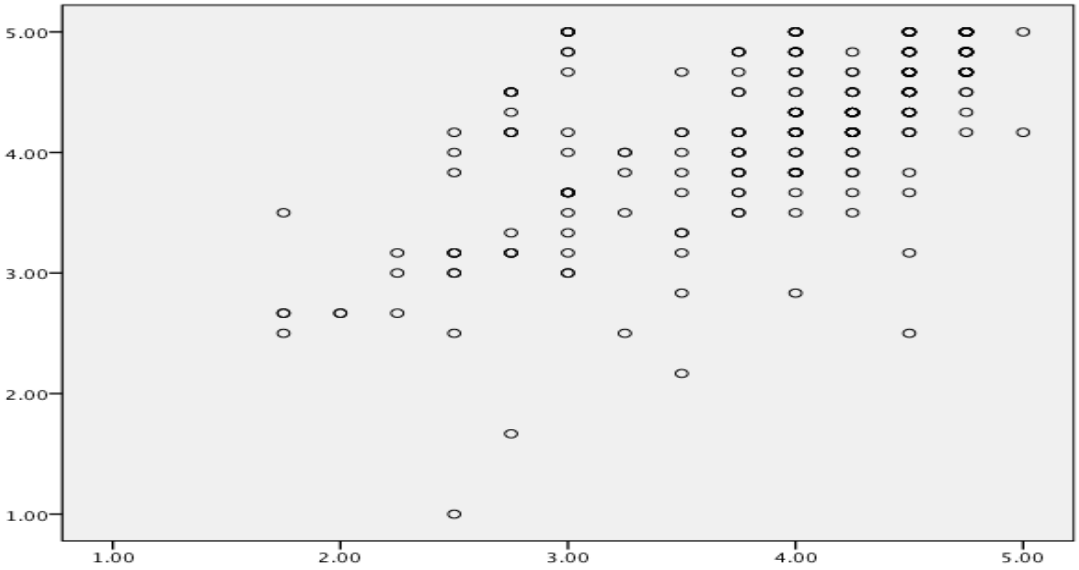

Figure 4.1. Scatterplot of Service Flexibility Strategy vs. Performance

No non-linear relationship is exhibited. As it can be seen in the figure, there is a linear association between the variables of service flexibility strategy and performance, such that as changes in service flexibility strategy increase so does performance. This implies that the assumption of linearity for service flexibility strategy and performance was met. Figure 4.2 displays a scatterplot between changes in e-reporting strategy and performance.

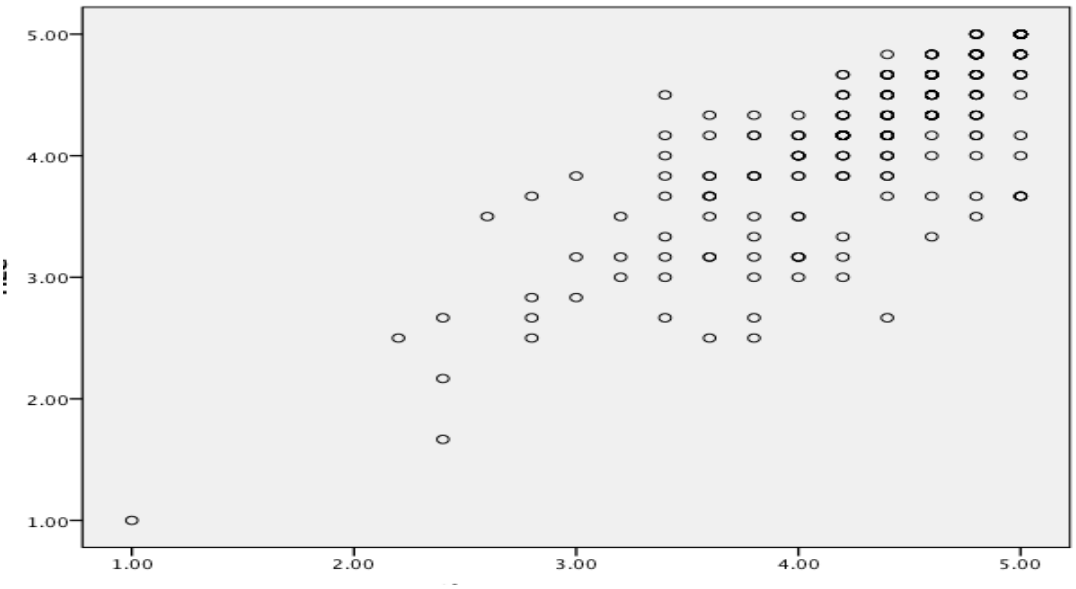

Figure 4.2: Scatterplot of E-reporting Strategy vs. Performance

Source: Researcher (2020)

A quick inspection of the scatterplot reveals the data does not appear to follow a non-linear or curvilinear pattern. Consequently, this ascertains that the linearity assumption was met for e-reporting strategy and performance. Figure 4.3 illustrates a scatterplot between e-documentation strategy and performance.

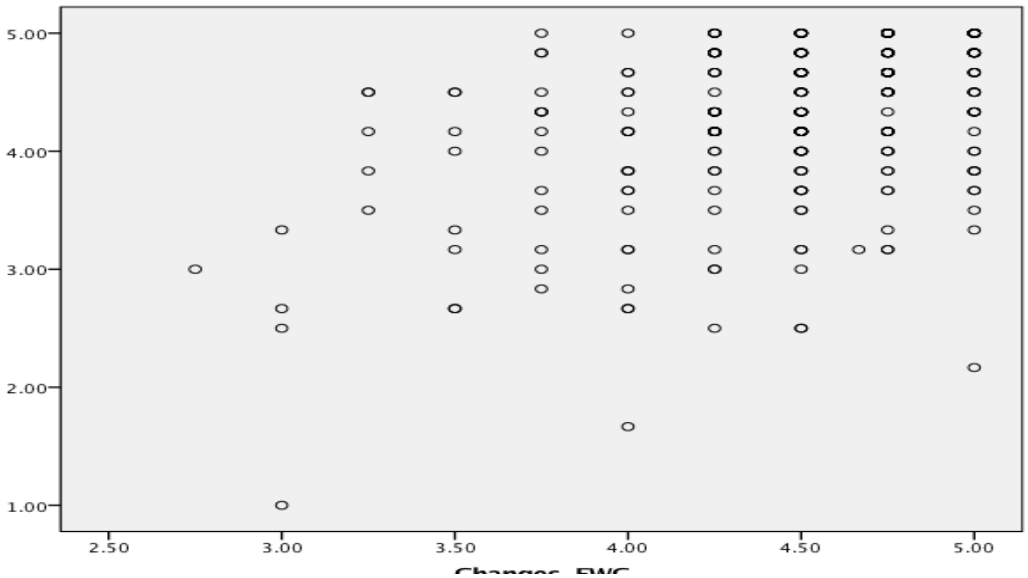

Figure 4.3: Scatterplot of E-documentation Strategy vs. Performance

Source: Researcher (2020)

Generally, the data points collectively assume an oval shape. This pattern is indicative of linear relationship. As such, it is valid to conclude that the linearity assumption was met for e-documentation strategy and performance. Figure 4.4 depicts the scatterplot between cost-reduction strategy and performance.

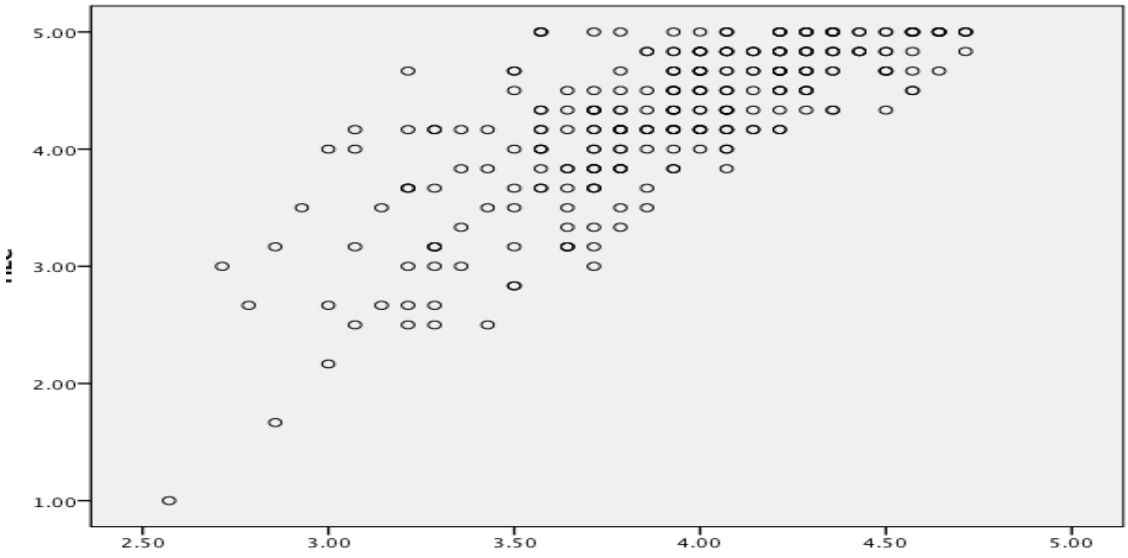

Figure 4.4: Scatterplot of Cost Reduction Strategy vs. Performance

Source: Researcher (2020)

The pattern in the scatterplot follows a fairly consistent slanted elliptical shape, which provides indication that there is a linear association between the two variables. It is also clear that as cost reduction strategies increase so does the performance. As such the scatterplot confirms that the fulfillment of the linearity assumption.

4.7.1.2: Normality

Normality is the assumption that population from which data is extracted follows a normal distribution. This assumption was assessed graphically by visually examining normal probability plot of standardized residuals. Figure 4.5 depicts the normal probability of the data.

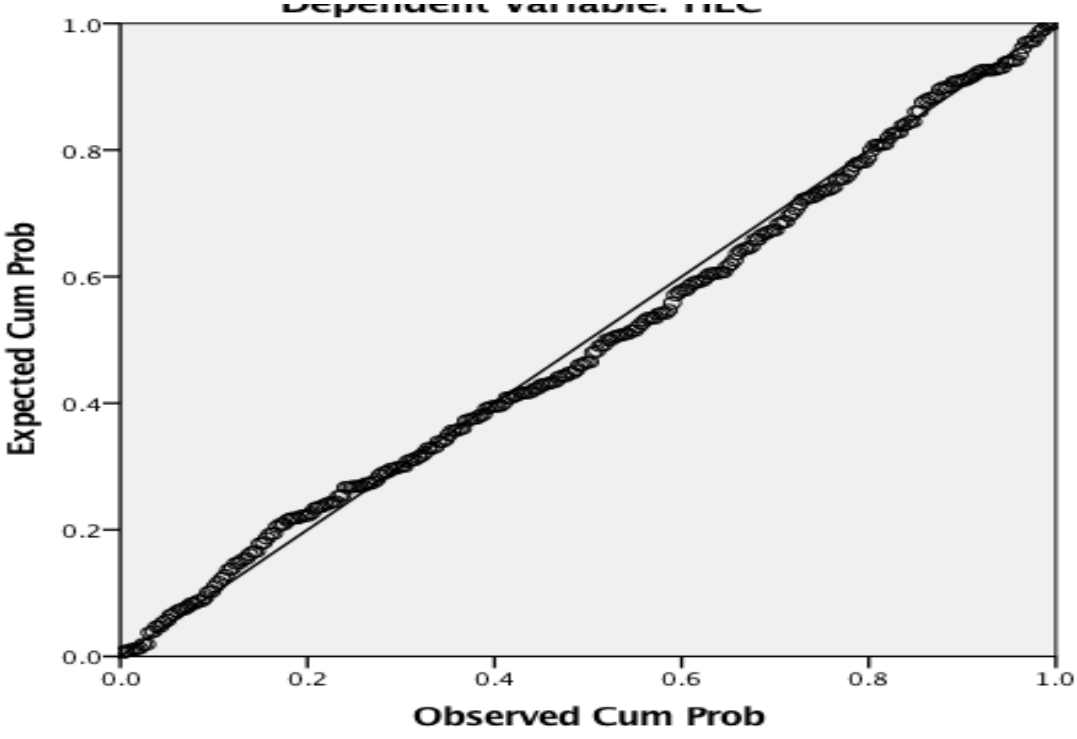

Figure 4.5: Normal Probability Plot of Standardized Residuals

Source: Researcher (2020)

The 45-degree line represents the normal distribution, and the provided points show the observed residuals. When the data set is perfectly distributed, all the scatter points ought to lie on a straight line. From the diagram, the scatter points are on a diagonal line and don't have a systematic or substantial departure. This is an indication that the values depict a normal distribution.

4.7.1.3 Homoscedasticity

This value looks at the assumption made in regard to the residue constancy across the predictor variables values (Bryman & Bell, 2014). Homoscedasticity was evaluated by plotting the residuals against the predicted values of the outcome variable. Figure 4.6 displays the resultant plot.

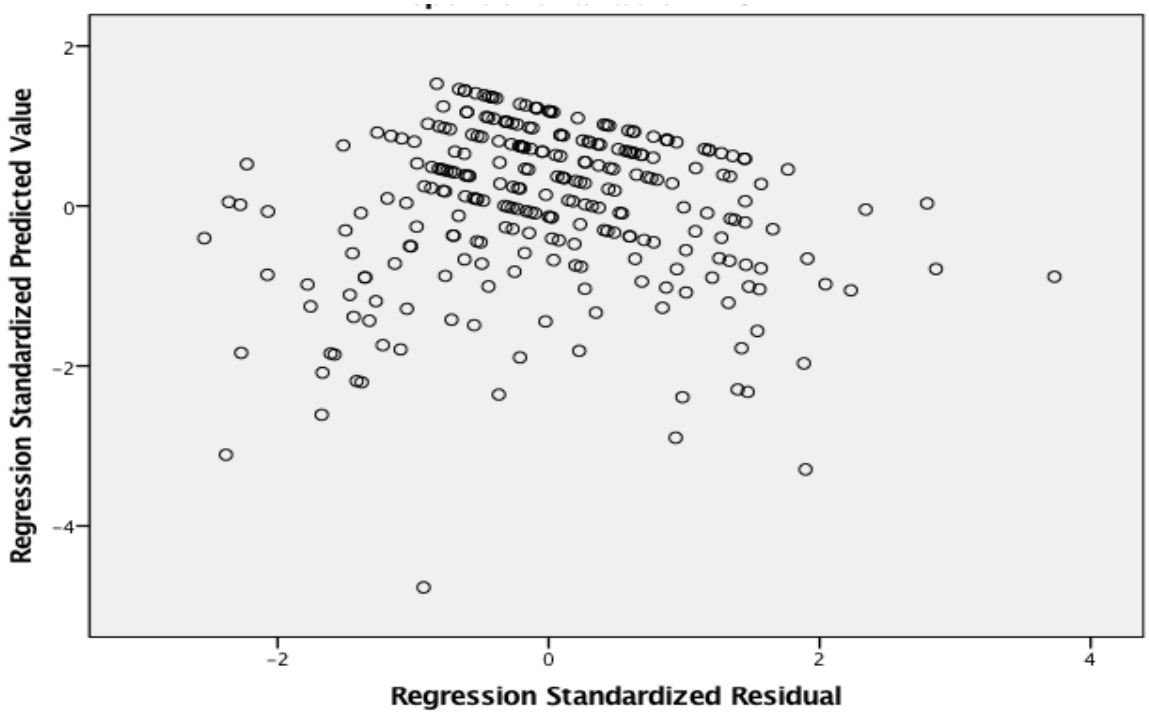

Figure 4.6. Scatterplot of Standardized Predicted Values vs. Standardized Residuals

Source: Researcher (2020)

The points are more crowded and dense in the middle part while they diminish at the ends. The arrangement of the values on the diagram depicts a normal curve on a histogram, where most of the values are crowded around the average score. As such, this plot shows that the residuals are homoscedastic.

4.7.1.4: Multicollinearity

This is the assumption that predictor variables in a multiple regression model do not exhibit high correlation (Hair et al., 2013). The Variance Inflation Factor (VIF) method helped evaluate this assumption. The outcome of the test are presented in Table 4.11.

Table 4.11: Multicollinearity

Model	Tolerance	VIF
Service flexibility strategy	0.694	1.442
E-reporting strategy	0.596	1.679
E-documentation strategy	0.803	1.245
Cost-reduction strategy	0.532	1.879

Source: Researcher (2020)

As a rule of thumb, multicollinearity is present when the tolerance value is 0.01 or less. Additionally, a VIF value greater than 10 implies there is multicollinearity. Table 4.18 depicts the tolerance values for predictor variables are in excess of 0.01 and the corresponding VIF values less than 10. Therefore, for this study the multicollinearity assumption was not violated.

4.7.2 Influence of E-services Strategy on the Performance of Kenyan Parastatals

The research aimed to assess the influence of service flexibility strategy, e-reporting strategy, e-documentation strategy and cost-reduction strategy on the performance of Kenyan parastatals. This objective was evaluated using multiple regression analysis. Specifically, the construct indices of the predictor variables were regressed on the composite index of performance. Table 4.19 indicates the summarized model.

Table 4.12: Model Summary

R	R^2	*Adjusted* R^2	*Std. Error of the Estimate*
0.902	0.813	0.811	0.296

Source: Researcher (2020)

The value of R^2 or coefficient of determination as shown in Table 4.12 is a measure of how variability in the outcome variable could be accounted for by the combined effect of service flexibility strategy, e-reporting strategy, e-documentation strategy and cost-reduction strategy. The results show that R^2=0.81which means that the changes in the e-services strategy accounted for 81.3% of variation in performance of the parastatals. The remaining 18.7% was explained by other factors not considered in this study. Table 4.13 shows the results of the ANOVA.

Table 4.13: ANOVA Results

Model	*SS*	*df*	*MS*	*F*	*Sig.*
Regression	184.58	4	46.15	30.77	0.00
Residual	85.54	57	1.50		
Total	270.12	61			

Source: Researcher (2020)

The ANOVA results (F=(4, 57)=30.77, p< 0.05) is proof that the regression model was statistically significant in predicting the effect of e-services strategy on performance. In other words, service flexibility strategy, e-reporting strategy, e-documentation strategy and cost-reduction strategy had a statistically significant effect on performance of the parastatals. Table 4.20 depicts the results of the regression coefficients.

Table 4.14: Regression Coefficients

Model	*B*	*Std. Error*	*Beta*	*T*	*Sg.*
(Constant)	0.58	0.19		3.08	0.00
Service flexibility	0.42	0.03	0.41	14.19	0.00
E-reporting	0.65	0.03	0.65	21.73	0.00
E-documentation	0.41	0.07	0.34	5.86	0.00
Cost reduction	0.05	0.04	0.04	1.19	0.00

Source: Researcher (2020)

Based on the results, the following empirical model is yielded.

*HEC= 0.58 + 0.42*Service flexibility +0.65*E-reporting + 0.41* E-documentation + 0.05* Cost reduction*

The interpretation of this equation is that all the independent variables have a positive effect on performance. An increase in any of the predictor variable is expected to increase performance. The amount of increase expected would differ for each variable on the basis of the regression coefficient. For example, a unit increase in service flexibility strategies would increase the performance of the parastatals by 0.42 units. A unit rise in e-reporting strategies would lead enhance performance by 0.65 units. A unit increase in e-documentation strategies would improve performance by 0.41 units. Also, a unit increase in cost reduction strategies would increase performance by 0.05. Generally, these findings are in line with Rostami et al. (2016), Nderitu (2018), Mutinda (2017) and Onyiego (2016).

4.8 Discussion of Findings

The objective of the study sought to assess the effect of e-services strategy on the performance of Kenyan parastatals. Among the specific e-services strategies considered included; service flexibility strategy, e-reporting strategy, e-documentation strategy and cost reduction strategy. The influence of the e-service strategies on performance was assessed using regression modeling.

Each of the e-service strategies was found to exert a positive and significant influence on the performance of the parastatals. The ANOVA results also confirmed that the model used establishing the relationship between e-service strategies and performance was statistically significant. These findings support the propositions of resource-based view and technology acceptance theory. The resource-based perspective considers an organization's innovative strategies as a bundle of resources that can be used to generate value to an organization and bestow it with a unique competitive edge and ultimately boost performance. The findings that e-service strategies, which are technologically oriented and innovative, elevate the performance of Kenyan parastatal confirmed this resource-based view tenet.

The study was also grounded on the technology acceptance theory, which postulates that, the uptake of technologies depends on their perceived usefulness. The results found that the implementation of e-service strategies in Kenyan parastatals has been done to a large extent. This uptake was also found to impact the performance of the parastatals. Therefore, it could be argued that the uptake of the e-service strategies by the parastatals is stimulated by the associated benefits of enhanced performance, which is in line with

the theory's postulation.

The findings are in synch with the results by Rostami et al. (2016) who found that e-services had a positive and significant impact on the performance of South African banks. The outcomes also tie well with Karabut (2015) who established a favorable and significant linkage between e-service innovative strategy and performance of manufacturing companies in Turkey. Similarly, the findings are consistent with Mutinda (2018) who found that e-government services had a favorable and significant impact on the performance of Nairobi County. Further, the result are in line with Mungai (2017) who found that implementation of the e-government strategy had a positive influence on the performance of Kenyan public sector.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This last chapter provides the summarized results and conclusions reached. The impact and limitations of the research are also given plus suggestions made for future studies.

5.2 Summary of Findings

The core objective of this research was to determine the effect of e-services strategy on the performance of parastatals in Kenya. Three specific e-services strategies were considered; service flexibility strategy, e-reporting strategy, e-documentation strategy and cost-reduction strategy. As such, the study sought to examine the link between each of these strategies and performance of the parastatals.

It was found that that service flexibility strategies with respect to Kenyan parastatals are implemented to a large extent. The descriptive statistics also showed that uniqueness features highly in service flexibility strategies in efforts to hold their competitive edge. It was further established that service flexibility strategy exerts a positive and significant effect on the performance of the parastatals.

The descriptive statistics revealed that e-reporting strategies are applied by Kenyan parastatals to a large extent. As to the nature of these strategies, it was found that uniqueness is highly prioritized. The regression results further revealed that a positive and statically significant relationship exists between e-reporting strategies and performance of the parastatals.

The results also revealed that Kenyan parastatals implement e-documentation strategies to a large extent. The most common strategy was found to involve communication via e-mail. With the aid of regression analysis, it was found that e-documentation strategies exert a positive and significant influence on the performance of Kenyan parastatals.

Lastly, it was established that cost reduction strategies are used by Kenyan parastatals to a large extent. It was found that the parastatals are usually pushed to implement these strategies in response to high operational costs. In addition, the results derived from regression analysis showed that cost reduction strategies have a positive and significant effect on the performance of Kenyan parastatals.

5.3 Conclusion

This study set to uncover the influence of e-strategies on the performance of Kenyan parastatals. The study concludes that service-flexibility strategy, e-reporting strategy, e-documentation strategy and cost reduction strategy are applied to a large extent by Kenyan parastatals and have a positive influence on their performance. Deployment of the strategies facilitates creation of unique value and competitive advantage, which in turn leads to improvement in the performance of the parastatals.

The success of the public sector is gauged by how effectively it provides its services to the citizens. The outcomes of this study highlight the fact that Kenyan parastatals have realized the nuances of customer service in e-services ought to be handled in manner that furnishes timely and accurate responses to the needs of the customers. It can also be concluded that in order to enhance their performance, the parastatals must continuously review the quality of e-services.

The embracing of a holistic approach to e-government development can bolster its impact as a pertinent enabling factor for public sector modernization and efficiency. Focusing on e-services strategies in the wider context of other public agendas and reform programs can aid in the effective alignment and coherence of the different policy areas. This, in turn, can enable and foster the systematic monitoring and assessment of the milestones achieved through crosscutting reforms and programs.

5.4 Recommendations

To enhance service delivery and ultimately organizational performance, it is important for the parastatals to constantly evaluate the public views on their service delivery as pertains to access, convenience and speed. The evaluations also ought to determine the service satisfaction levels, expectations and needs of the public. Doing so would ensure that improvements in service delivery are responsive to the needs of the public.

In a bid to boost the value of e-services offered by parastatals, the Kenyan government should expedite stalled e-service projects, e-administration projects and invest in better IT equipment other than the existing IT infrastructure in a citizen centric fashion. In addition, the government should seek immediate actions geared towards eliminating the vulnerabilities to the citizen information hosted by the parastatals. In this regard, the parastatals are encouraged to increase the awareness of their cyber security efforts amongst the public so as to lessen the citizens' security concerns and perceptions of cyber-attack risks. This would increase the citizens' willingness to utilize the e-services. Additionally, there is need for policymakers to institute stronger cyber security policies that necessitate the parastatals to not only safeguard the citizens' personal information,

but also foster a culture of cyber security awareness. This would involve training the citizens on the benefits of e-services, potential security threats and the proper user security behavior for mitigating the threats.

E-services ought to be distributed to the public equally and in a fair and transparent manner by the parastatals. This would aid in ensuring there is no existence of e-services excluded communities. Factors such as poor digital literacy, insufficient resources and language barriers are likely to hamper the equal and fair distribution of e-services by the parastatals to all citizens. Therefore, the government should embark on serious efforts to eliminate these challenges for instance, through development of IT structures and capacity building of human resources.

5.5 Limitations of the Study

This research had a few hiccups especially in collection of the data needed for analysis. The study faced a challenge of unwillingness of the respondents to fill in the questionnaires. The limitation was addressed through informing the respondents that the data was meant for scholarly purposes only. The research faced a time constrain challenge since the period of time issued was short. The researcher addressed the challenge by working extra hours to beat the deadlines of submission. On the other hand, financial resources constrain was also another challenges that the researcher faced. Another challenge was the use of a descriptive research design, such that the causal link between e-services strategy and performance of the parastatals could not be uncovered.

5.6 Suggestions for Future Research

The study objective was to establish the influence of e-services strategy on the performance of Parastatals in Kenya. Other studies ought be done on impact of e-services strategy on service delivery of government ministries in Kenya.

Study should be done on effects of service flexibility strategy on customer satisfaction of parastatals in Kenya

A study should be conducted on the effects of e-government services on customer service in Kenyan government ministries.

Studies ought to also focus on the influence of information communication technology on customer experience among non-governmental organizations in Kenya

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APPENDIX: RESEARCH QUESTIONNAIRE

This questionnaire seeks to gather data that will be used for academic purpose only. Confidentiality and privacy will be maintained in handling the responses provided. Please answer all of the questions.

Section: A: Organization Characteristics

1. Kindly indicate the number of employees in this firm

   Below 10 ( )

   11-20 ( )

   21-30 ( )

   31-40 ( )

   41-50 ( )

   Above 51 ( )

2. For how long has this firm been operational in Kenya? Kindly indicate

   Below 5 years ( )

   6-10 years ( )

   11-15 years ( )

   16-20 years ( )

   Above 21 years ( )

3. Kindly indicate the length of period you have served in this parastatal

   Below 5 years ( )

6- 10 years ( )

11-15 years ( )

16 -20 years ( )

Above 21 years ( )

Section B: Types of E-Service Strategies

4. Using the following statements in relation to service flexibility strategy kindly put a tick inside the box on the number related to your level of agreement. Scale: 1=Not at all; 2-To a small extent; 3=To a moderate extent; 4=To a large extent; and 5; To a very large extent

Service Flexibility Strategy	**1**	**2**	**3**	**4**	**5**
To attain the firm goals, service workflow is emphasized in the parastatal.					
The set objectives of the parastatal guide the activities of the organization					
The parastatal has implemented unique types of flexibility not commonly practiced by other businesses processes.					
Interaction flexibility is emphasized in the parastatal					
New forms of firm flexibility have been adopted by the parastatal					
In modern economies firm flexibility is important					

5. Using the following statements in relation to e-reporting strategy kindly put a tick inside the box on the number related to your level of agreement. Scale: 1=Not at all; 2-To a small extent; 3=To a moderate extent; 4=To a large extent; and 5; To a very large extent

E-Reporting Strategy	**1**	**2**	**3**	**4**	**5**
The organization records information for future use					
Quality reports are produced by the parastatal					
Real-time feedback is practiced in the parastatal					
A unique e-reporting system has been developed by the parastatal.					
Faster responses is attained through the use of e-reporting in the parastatal.					
In the parastatal, e-recording and e-reporting systems have improved performance.					

6. Using the following statements in relation to e-documentation strategy kindly put a tick inside the box on the number related to your level of agreement. Scale: 1=Not at all; 2-To a small extent; 3=To a moderate extent; 4=To a large extent; and 5; To a very large extent

E-Documentation Strategy	**1**	**2**	**3**	**4**	**5**
In the parastatal, information is well distributed					
The accessibility of information has improved with the adoption of e-documentation.					
The information security in the parastatal has improved with the implementation of e-documentation.					
The challenge of incompatible file formats has been experienced with the adoption of e-documentation in the parastatal.					
E-mails are used to communicate in the parastatal					
The e-documents in the parastatal are user protected since they require a user agent prior to presenting the content.					

7. Using the following statements in relation to service flexibility kindly put a tick inside the box on the number related to your level of agreement. Scale: 1=Not at all;

2-To a small extent; 3=To a moderate extent; 4=To a large extent; and 5; To a very large extent.

Cost Reduction Strategy	**1**	**2**	**3**	**4**	**5**
The service maintenances costs are high in the parastatal.					
The parastatal records low operational costs					
Accountability and transparency in relation to finances and services has improved with the adoption of electronic services.					
In the parastatal, the maintenance cost of applications is high					
In the parastatal, the main e-service delivery channel is the internet					
Electronic services have resulted in easier access of services and goods.					

8. Using the following statements in relation to firm performance kindly put a tick inside the box on the number related to your level of agreement. Scale: 1=Not at all; 2-To a small extent; 3=To a moderate extent; 4=To a large extent; and 5; To a very large extent

Firm Performance	**1**	**2**	**3**	**4**	**5**
Efficiency					
The organizational goals are achieved on time					
The parastatals has adapted to the environment and technology					
The parastatals communication process is faster					
Effectiveness					
There is accountability in every department					

The workforce performance in the parastatals is good					
Our employees are experienced					
Customer retention					
We have an existing customer growth rate					
Our customers return for our services					
We have new subscribers on daily basis					
Return On Investment					
The amount of return on a particular investment sustain the firm					
Returns are obtained from the sale of the investment of interest					
Return on assets					
The services offered by the firm generate revenue					
Return on assets gives the firm management, an idea as to how efficient the parastatal is.					

THANK YOU