EFFECTS OF E-GOVERNMENT STRATEGY ON SERVICE DELIVERY IN THE GOVERNMENT MINISTRIES IN KENYA

By

MERCY KARIMI MUGAMBI

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DECLARATION

This project is my original work and has not been presented for a degree in any other University.

Signature:…….. Date:……

MERCY KARIMI MUGAMBI **D61/64549/2011**

This research project has been submitted for examination with my approval as the University Supervisor.

Signature……..….Date…….

DR. JUSTUS MUNYOKI
SENIOR LECTURER
DEPARTMENT OF BUSINESS ADMINISTRATION

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To my husband and our children, Thank you for the support you accorded me during the whole period I was a way doing my course work.

DEDICATION

I dedicate this work to my family and all those who supported me in the completion of this project. Thank you and May God bless you abundantly.

ABSTRACT

E-government involves using ICTs to transform both back-end and front-end government processes and provides services, information and knowledge to the public. The emergence of Information and Communication Technology has provided means for faster and better communication, efficient storage, retrieval and processing of data and exchange and utilization of information to its users, be they individuals, groups, businesses, organizations or governments. The objective of the study was to investigate the effects of e-government strategy on service delivery in the government ministries. The study adopted a descriptive survey research design. The target population comprised of all Government Ministries in Kenya were by census was conducted. The data was collected using questionnaires which comprised of both open and closed ended questions. The data was analyzed using Statistical Package for Social Sciences (SPSS) and presented in the form of tables, frequencies and percentages. The research findings revealed that implementation of e-government were not effective in all Ministries. The study revealed that use of e-government enabled database sharing, lowered the costs of delivering services, reduced time taken to process a transaction, lead to improved management of records, eased working procedure and improved staff productivity. The study revealed the existence of overcrowding in ministries, and inability by citizens to access facilities online. The study recommends enactment of policies aimed at regulating of e-government implementation. the study recommend that management teams responsible for e-government implementation at the ministries should ensure that the e-government implementation process leads to promoting online access of facilities by the citizen as well as reducing overcrowding in the Ministries.

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CHAPTER ONE

INTODUCTION

1.1 Background of the Study

The emergence of Information and Communication Technology has provided means for faster and better communication, efficient storage, retrieval and processing of data and exchange and utilization of information to its users, be they individuals, groups, businesses, organizations or governments. ICTs have to be used in order to create and deliver a service, which is useful and has an effective impact for the businesses and for the citizens. Information and communications technology (ICT) is an integral component of government operations and service delivery. ICT is increasingly used as a strategic tool to more efficiently support any Government's priorities and program delivery. In order to have a successful e-Government, the Information and Communication Technology (ICT) solutions, which are at the very core of the e-Government infrastructure, have to be reachable by all citizens (Reffat, 2006).

This study was anchored on two theories: Theory of planned behavior and technology acceptance model. The theory of planned behavior is a theory about the link between beliefs and behavior. It started as the Theory of Reasoned Action in 1980 to predict an individual's intention to engage in a behavior at a specific time and place. TPB states that behavioral achievement depends on both motivation (intention) and ability (behavioral control). It distinguishes between three types of beliefs - behavioral, normative, and control (Venkatesh, Morris, Davis and Davis, 2003). Technology Acceptance Model (TAM) deals with the prediction of the acceptability of an information system. TAM

posits that perceived usefulness and perceived ease of use determine an individual's intention to use a system with intention to use serving as a mediator of actual system use. Perceived usefulness is also seen as being directly impacted by perceived ease of use (Venkatesh, Morris, Davis and Davis, 2003).

Electronic Government uses a range of information technologies, such as the Wide Area Networks, Internet, and Mobile Computing, to transform government operations in order to improve effectiveness, efficiency, service delivery and to promote democracy. Electronic Government is a fundamental element in the modernization of the Government of Kenya. It provides a common framework and direction across the public sector and enhances collaboration within and among public sector organizations and institutions, between Government and the business community, and between Government and the citizens that it serves in the implementation of Government Policies. It also identifies ways of developing the skills needed by public servants to realize the new opportunities offered by ICT advancement such as the internet (e-Government, 2004).

1.1.1 Concept of Strategy

According to Thompson (2007), strategy is a long term plan of action designed to achieve a particular goal, most often winning. Strategy can be used as a deliberate search for a plan of action that will develop an organizations competitive advantage and enhance it. Thus, strategy development is a multidimensional process that must involve rational analysis and intuition, experience, and emotion. Without analysis, the process of strategy formulation, particularly at the senior management level, is likely to be chaotic with no basis for comparing and evaluating alternatives.

Equally important, a strategy serves as a vehicle for achieving consistent decision making across different departments and individuals. Strategy permits the application of powerful analytical tools to help ministries create and redirect their strategies. Strategy can help the firm establish long term direction in its development and behavior (Grant, 2002). For strategy to provide such coordination it requires that the strategy process act as a communication mechanism within the ministries.

1.1.2 Service Delivery

Service is defined as a product or activity that meets the needs of a user or can be applied by a user. To be effective, services should possess these attributes like: available and timely at time and space scales that the user needs; Dependable and reliable in that they need to be delivered on time to the required user specification; Usable meaning that they need to be presented in user specific formats so that the clients can fully understand; Useful meaning that they need to respond appropriately to user needs; Credible for the user to confidently apply to decision-making and responsive and flexible to the evolving user needs.

Mutali (2008) while quoting Parasuraman, Zeithmal and Berry (1991) listed five determinants of service quality by order of importance to include reliability, responsiveness (willingness to help customers and prompt service assurance), and the ability to convey trust, empathy and individualized attention to customers. Other service quality measurement tools studies have found that well managed service companies have the following practices: strategic concept and top management support, high standards of service delivery, service monitoring systems, satisfying customer complaints and emphasis on employee satisfaction.

Service delivery is a continuous, cyclic process for developing and delivering user focused services. Quality service delivery involves a comparison of expectations with performance. According to Lewis and Booms (1983) service quality is a measure of how well a delivered service matches the customer's expectations. The main reason to focus on quality is to meet customer needs while remaining economically competitive at the same time. This means satisfying customer needs is very important for the enterprises survival and it requires understanding and improving of operational processes, identifying problems quickly and systematically, establishing valid and reliable service performance measures and measuring customer satisfaction and other performance outcomes. According to Kundenbindun (2008) service quality is a business administration's term and describes the degree of achievement of an ordered service.

1.1.3 Information Communication System

ICT as any technology used to support information gathering, processing, distribution and use (Beynon-Davies, 2002). According to Al-Qallaf & Al-Azmi, (2002) ICT is the integration of computer and communications technologies for the creation, processing, dissemination and transmission of information. ICT consists of hardware, software, data and communication technology.

The emergence of Information and Communication Technology has provided means for faster and better communication, efficient storage, retrieval and processing of data and exchange and utilization of information to its users, be they individuals, groups, businesses, organizations or governments. Information and Communication Technologies

have to be used in order to create and deliver a service, which is useful and has an effective impact for the businesses and for the citizens.

Application of Information and Communication Technology (ICT) in the ministries is aimed at changing the way ministries conduct their operations. In order to attain this vision, it is important that the Government stocks the necessary ICT skills set for the implementation and maintenance of e-government. In order to have a successful e-government, the Information and Communication Technology (ICT) solutions, which are at the very base of the e-government infrastructure, have to be reachable by all citizens (Reffat, 2006).

1.1.4 E-Government

E-government has several meanings. One narrow definition focuses only on Internet-applications inside government. However, narrow definition sometimes is expanded to include the use of the Internet in restructuring government-citizen interactions and related political relationships (Farelo & Morris, 2006). A broader definition looks at e-government as the use of ICT to strengthen government performance in areas such as more effective and more efficient provision of services, opening new channels for people to access government and official information, and making government more accountable to its citizens. Kumar and Best (2006) defined e-Government as the use of information and communication technologies (ICTs) in the public sector to improve its operations and delivery of services. Government organizations have public functions that are of general interest to citizens and businesses. While exercising their tasks like research, policy making, policy execution, democratic control, communication with the citizens, and internal administrative processes, information emerges.

The World Bank (2004) defines E-government as the use by government agencies of information technologies (such as Wide Area Networks, the Internet, and mobile computing) that have the ability to transform relations with citizens, businesses, and other arms of government. E-government therefore involves using ICTs to transform both back-end and front-end government processes and provides services, information and knowledge to the public. It has the potential to help build better relationships between government and the public by making interaction with citizens smoother, easier, and more efficient. Indeed, government ministries report using electronic commerce to improve core ministries operations and deliver information and services faster, cheaper. Wide range of information technologies, such as the Wide Area Networks, Internet, and Mobile Computing, are used by e-computing to transform government operations through the ministries in order to improve effectiveness, efficiency, service delivery and to promote democracy.

1.1.5 Government Ministries in Kenya

In line with the Executive Order No.2 of 2013 on the Reorganization of Government, the Government established the Information and Communications Technology Authority (ICTA) under Legal Notice No.183 of 2013. The Authority is an amalgamation of the former KICT Board, Department of e-Government and the Government Information Technology Services (GITS) (GOK, 2013). It is mandated to co-ordinate the sector and to market Kenya as a local and international ICT hub.

The Authority was set to rationalize and streamline the management of all Government of Kenya ICT institutions besides advising the Government on sectoral development and

ICT project implementation and investment. The Authority enforces ICT standards in Government and enhances the supervision of its electronic communications under the National Messaging theme: "One Government, One Voice." The objective of the Information and Communications Technology Authority (ICTA) is to standardize and procedurize e-Government communication services. Already a steering committee has been formed to re-structure and re-brand Government websites to promote a positive image (GOK, 2013). The committee will also establish ways to upgrade Government cyber security and help build capacity in ICT.

The Government online Portal is being upgraded to a one-stop shop for Government information. The Kenya Open Data project, which promotes transparency in Government, was launched in 2011 and is accessible for new business opportunities and employment. The Connected Kenya Master Plan (2012-2017), envisions Kenya as a globally competitive and respected knowledge-based economy begun to strengthen ICT business development and is expected to be a major driver in industry (GOK, 2013).

1.2 Research Problem

Service delivery is a continuous, cyclic process for developing and delivering user focused services. Quality service delivery involves a comparison of expectations with performance (Mutali, 2008). To be effective, services should possess these attributes like: available and timely at time and space scales that the user needs; Dependable and reliable in that they need to be delivered on time to the required user specification; Usable meaning that they need to be presented in user specific formats so that the clients can fully understand; Useful meaning that they need to respond appropriately

to user needs; Credible for the user to confidently apply to decision-making and responsive and flexible to the evolving user needs (Kundenbindun, 2008).

The Kenyan government is moving towards becoming more efficient operationally by collaborating across traditional departments and has to become more responsive towards its citizens' needs. The government faces an increased pressure to form an effective e-Government. The e-Government is not only meant to bring public services online, but is also focused mainly in reducing overall operational costs by transforming the e-Government into an organization that generates both social and economic value effectively (GoK, 2013). Thus, effectiveness and efficiency factors have to be investigated and prioritized.

E-government is increasingly becoming a fundamental tool for enhancing public administration. The central argument is that e-government is not only a tool or platform that enhances delivery of public services but also has the potential to reform the way policies are formulated and implemented in terms of efficiency, accountability, transparency, and citizens' participation (GoK, 2013). The Government of Kenya has failed in disseminating information about e-government, sensitizing Kenyans on how to make use of technology to access government services, and providing incentives to encourage use of technology. Despite the advantages touted globally for implementing e-government, literature showed no evidence that any of the Kenyan e-government's objectives: enhancing delivery of public services, improving information flow to citizens, promoting productivity among public servants, and encouraging citizens' participation has been achieved (Njuru, 2011). Service delivery by the Government officers has been

mered by delays, poor information management as the files were manually maintained making information retrieval difficult.

Several researchers and scholars have reviewed the concept of e-government in Kenya. For instance, Mutinda (2004) looked at the Roadmap to e-Government using a case of Kenya. Were (2010) studied strategies adopted by the Kenyan government in introducing E-governance. The research findings revealed that there is a relationship between various demographical characteristics and the knowledge of e-Government and ICT literacy. Maranga (2012) studied on strategic interventions to enhance adoption of open source applications and creative commons licensed open content in the Kenyan Government. The results of the study indicated that OSS and CC licensed open content usage within the ministries is not yet extensive and measures need to be put in place to enhance the utilization of these. From the above studies, there is no study that has sought to establish the effects of e-Government on service delivery. This study therefore sought to fill this knowledge gap by seeking to answer one question:

What effects had the implementation of e-government had on service delivery in Kenya?

1.3 Research Objective

The objective of the study was to investigate the effects of e-government strategy on service delivery in the government ministries.

1.4 Value of Study

The findings of this study would be valuable to various stakeholders:

First, the findings of this study would be important to future researchers and academicians as it would act as a source of reference on the application of e-government

strategy on service delivery among Government ministries in Kenya. In addition, the findings of this study would be valuable as it would suggest areas for further research where future researchers and scholars can research on.

The findings of this research would also be valuable to policy makers on the introduction and application of e-government in Government ministries. It would assist in providing information on the effects of e-government on service delivery in Kenya.

The findings of this study would be valuable to officers in Government ministries and more especially the Directorate of e-government because of their key role in the implementation of e-government.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter summarizes the information from authors and researchers who have carried out research in the same field of study. The specific areas covered in this chapter are the theoretical perspective, E- government and Service delivery.

2.2 Theoretical Foundation

This study will be anchored on two theories: Theory of planned behavior and technology acceptance model. These theories have been selected because of their explanations on service delivery in a technologically defined environment.

The theory of planned behavior is a theory about the link between beliefs and behavior. The theory states that attitude toward behavior, subjective norms, and perceived behavioral control, together shape an individual's behavioral intentions and behaviors (George, 2004). The Theory of Planned Behavior (TPB) started as the Theory of Reasoned Action in 1980 to predict an individual's intention to engage in a behavior at a specific time and place. The theory was intended to explain all behaviors over which people have the ability to exert self-control (Hsu and Chiu, 2004). The key component to this model is behavioral intent; behavioral intentions are influenced by the attitude about the likelihood that the behavior will have the expected outcome and the subjective evaluation of the risks and benefits of that outcome. The TPB states that behavioral achievement depends on both motivation (intention) and ability (behavioral control). It

distinguishes between three types of beliefs - behavioral, normative, and control (Venkatesh, Morris, Davis and Davis, 2003).

The TPB is comprised of six constructs that collectively represent a person's actual control over the behavior: Attitudes which refers to the degree to which a person has a favorable or unfavorable evaluation of the behavior of interest. It entails a consideration of the outcomes of performing the behavior; Behavioral intention which refers to the motivational factors that influence a given behavior where the stronger the intention to perform the behavior, the more likely the behavior will be performed; Subjective norms which refers to the belief about whether most people approve or disapprove of the behavior (Hsu and Chiu, 2004). It relates to a person's beliefs about whether peers and people of importance to the person think he or she should engage in the behavior; Social norms which refers to the customary codes of behavior in a group or people or larger cultural context. Social norms are considered normative, or standard, in a group of people; Perceived power which refers to the perceived presence of factors that may facilitate or impede performance of a behavior (Venkatesh, Morris, Davis and Davis, 2003). Perceived power contributes to a person's perceived behavioral control over each of those factors. Perceived behavioral control which refers to a person's perception of the ease or difficulty of performing the behavior of interest. Perceived behavioral control varies across situations and actions, which results in a person having varying perceptions of behavioral control depending on the situation. This construct of the theory was added later, and created the shift from the Theory of Reasoned Action to the Theory of Planned Behavior.

Technology Acceptance Model (TAM) deals with the prediction of the acceptability of an information system. TAM is an adaptation of the Theory of Reasoned Action (TRA) to the field of information systems (Brown and Venkatesh, 2005). The purpose of this model is to predict the acceptability of a tool and to identify the modifications which must be brought to the system in order to make it acceptable to users. This model suggests that the acceptability of an information system is determined by two main factors: perceived usefulness and perceived ease of use (Venkatesh, Morris, Davis and Davis, 2003). TAM posits that perceived usefulness and perceived ease of use determine an individual's intention to use a system with intention to use serving as a mediator of actual system use. Perceived usefulness is also seen as being directly impacted by perceived ease of use (Venkatesh, Morris, Davis and Davis, 2003).

2.3 E- Government Strategy

E-government is defined by the United Nations as "A government that applies ICT to transform its internal and external relationships" (United Nations, 2003). E-Government is a complex socio-technical system in which heterogeneous stakeholders are interactively entangled to fulfill their best interests in providing services to the country's citizens. According to Matavire, Chigona, Roode, Sewchurran, Zane Mukudu, and Boamah-Abu, (2010) E-Government is the use of Information and Communication Technology (ICT) to transform government by making it more accessible, effective and accountable. An e-government is an inclusion of all applications of information and communication technologies that improve efficiency, effectiveness, transparency and accountability of daily administration of government (Sharma, 2007). Evans and Yen (2006) notes that an e-government is a system were by there is effective provision of

public services via information and communication technologies. It also implies electronic transaction between the government and other actors such as citizens or businesses in society through new technologies including the internet. However, Ndou (2004) argues that some of the adopted e-Government definitions are too narrow, which results in inadequate interpretations of its objectives.

Several classification schemes of the e-government implementation and development steps have being used by scholars and practitioners worldwide. According to the UN-DPEPA - ASPA classification, there are five stages of e-Government. The first stage is One-way communication- basic website. In this stage the sites serve as a public information source, static information on the government is provided, FAQs may be found and contact information is provided. The second stage is two-way communication-enhanced website. At this stage the access to specific information is regularly updated; a central government homepage may act as a portal to other department sites; useful documents may be downloaded or ordered online; search features, e-mail and areas for comments are accessible. The third stage is interactive web presence. At this A National government website frequently acts as a portal; users can search specialized databases; forms can be downloaded and/or submitted online and secure sites and passwords begin to emerge. The fourth stage is portal personalization. At this point the users will be able to conduct complete and secure transactions online; the government website will allow users to customize a portal in order to directly access services based on specific needs and priorities and sites will be ultimately secure. The last stage is fully integrated portal. It is In this stage whereby the country provides all services and links through a single

portal; no defined demarcation between various agencies and departments; all transactional services offered by government will be available online.

ICT allows a government's internal and external communication to gain speed, precision, simplicity, outreach and networking capacity, which can then be converted into cost reductions and increased effectiveness - two features desirable for all government operations, but especially for public services. ICT also enables 24/7 usefulness, transparency and accountability, as well as networked structures of public administration, information management and knowledge creation. In addition, it can equip people to participate in an inclusive political process that can produce well-informed public consent, which is, increasingly, the basis for the legitimacy of governments (Reijswoud, 2008). e-Government being facilitated by offers a host of transformation capabilities ranging from radically shrinking communications and information costs, maximizing speed, broadening reach, to eradicating distance (Jaeger & Thompson 2003). However, the full extent of the benefits of e-Government remains an open ended question. Frameworks by Gupta and Jana (2003) assessing the tangible and intangible benefits of e-Government's have been developed. With these issues taken into account, a systematic definition of e-Government is adopted in this study.

Perspectives on the core requirements for successful implementation of e-Government differ throughout literature. Borins (2002) asserts that e-Government relies on the use of Information Technology (IT), implying the ability to use the appropriate technology is key. Stanforth (2007) argues that its implementation is dependent on the network of actors involved and is inherently a political process as opposed to it being a technology process. Ciborra (2005) argues that developing nations are not ready for e-Government

and it would only benefit privileged sections of society. This notion is supported by a study by Wheeler (2003) based on attempts to build an information society in Egypt which revealed the attempts only benefited the well-off. These examples highlight a design-reality gap in e-Government projects as espoused by Heeks (2003) and Dada (2006).

According to Reijswoud (2008), Governments in the developing world have been under considerable international and national pressure to review and update their processes. Reijswoulds (2008) further notes that donors and governments in the developed world have continuously urged governments of developing countries to increase transparency, support decentralization, decrease corruption and participate in global digital information sharing. the private sector has also echoed the call of developed countries by demanding more openness and willingness to participate in transparent relationships, and citizens are asking their governments to provide better, faster services and to extend their information and service offerings to rural areas. As a result of these pressures, governments in the developing world have been challenged to change more than ever before (United Nations, 2003).

However there are key challenges being faced in the implementation of ICT which consist of: the development of information and communications infrastructure; human resources development and employment creation; the current position of developing countries in the world economy; and insufficient legal and regulatory frameworks and government strategy. Bhuiyan (2009) supports these sentiments are supported by citing that corruption is an added challenge; especially where the developing country's political landscape is characterized by political elite who influence the direction of ICT initiatives.

Matavire et *al*., (2010) further identifies access problems as part of the complexity of the digital divide. Access problems constitute mental access, skills access, material access and usage. Braa, Monteiro & Sahay, (2004) notes that ICT's in the developing world are often naively adopted without sufficient consideration of the social, cultural and historical context in which implementation occurs. Kitaw (2006) goes on to add literacy levels to the list of challenges, stating that low literacy levels hinder the types of media available for e-Government implementations.

United Nations report (2003) on the World Public Sector (2003) indicates that many developing countries suffer from the digital divide, and they are not able to deploy the appropriate infrastructure for e-Government deployment (World Bank, 2003). Same observation was made by Matavire et *al*., (2010) who noted that e-Government implementations in developing countries are generally more problematic in comparison to those in the developed nations. These developing countries face many challenges for e-Government development and implementation such as: Policy issues, ICT infrastructure, human capital development, change management, strategy, leadership role, and partnership and collaboration (Ndou 2004).

Application of ICT allows a government's internal and external communication to gain speed, precision, simplicity, outreach and networking capacity, which can then be converted into cost reductions and increased effectiveness - two features desirable for all government operations, but especially for public services. ICT also enhances transparency and accountability, as well as networked structures of public administration, information management and knowledge creation. In addition, it can equip people to participate in an inclusive political process that can produce well-

informed public consent, which is, increasingly, the basis for the legitimacy of governments.

2.4 Service Delivery

The delivery of service in government departments has been and continues to draw attention from the external and internal environment. Service delivery is affected by various factors such as remuneration of its workforce, training, promotional procedures, and culture of the systems and among other factors (Budhiraja, 2005). However it is important to note that Service delivery in government ministries his highly depended on information-technology and the skills and knowledge of the employees who work in those ministries. Despite the existence of these ministries, the service deliveries they offer are questionable. Budhiraja (2005) notes that there is lack of transparency, efficiency, and unsecure delivery of services.

The availability of I.C.T and skilled workforce with good capacity for learning is essential for e-government, along with other factors like leadership, regulatory frameworks, financial resources, organizational conditions, and Information and Technology infrastructure (Lau, 2003). They span: Leadership, Technology Management, Information Management, Performance Assessment, Project Management and Information Technology. These skills are targeted at both specific categories of government employees like managers, IT specialists as well as public officers in general. Settles (2005) notes that the process of implementing e-government solutions requires new managerial and technical skills to plan, evaluate, manage, finance and integrate information systems as part of government operations.

According to Adegboyega, Tomasz, Elsa and Irshad (2007), Information Technology (IT) skills are technical skills necessary to implement e-government in order to facilitate smooth service delivery through improved information management. These may include basic IT literacy for all employees, and technical skills for IT specialists to design and implement technical elements: hardware, software and communication of e-government initiatives. Specific IT-skills may include: Strategy and Planning, System Development, System Implementation and Maintenance, and Service and User Support.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the methods that was used in collection or gathering of data pertinent in answering the research question. The chapter specifically covers the following sub-topics; research design, target population, research instruments, the sample and sampling procedures, data collection procedures and data analysis procedures.

3.2 Research Design

The study adopted a descriptive survey research design. Mugenda and Mugenda (2003) describes descriptive research design as a systematic, empirical inquiring into which the researcher does not have a direct control of independent variable as their manifestation has already occurred or because the inherently cannot be manipulated. The research design was chosen because of its ability to create a profile about a phenomenon. Descriptive research design is concerned with finding out about the how, who, when and where of a phenomenon so as to build a profile (Mugenda and Mugenda, 2003).

3.3 Population of the Study

The target population comprised of all Government Ministries in Kenya as at July 31st 2013. According to the public service commission, there were 18 Government Ministries (GOK, 2013). Due to the small number of the target population, the study conducted a census where all members of the population were included in the study.

3.4 Data Collection and Measurement

Primary data was collected using a questionnaire. The questionnaire comprised of open and closed ended questions. The close-ended questions provided more structured responses to facilitate tangible recommendations. The open-ended questions provided additional information that could not be captured in the close-ended questions. The questionnaires were carefully designed and tested with a few members of the population together with the supervisor for further improvements. This was done in order to enhance its validity and accuracy of data to be collected for the study.

The researchers administered a questionnaire to Information technology officers and customer service managers who are the officers' in charge of e-government and service delivery in each Ministry. The questionnaires were administered using a drop and pick later method. Secondary data was also collected for this study from published materials at the Directorate of e-Government and Government Ministries.

The questionnaire was prepared on a five point likert scale ranging from strongly agree to strongly disagree. This assisted in measuring the respondents level of agreement with each statement which helped in interpretation on how e-government strategy had affected service delivery in Government ministries.

3.5 Data Validity and Reliability

A pilot study was conducted to test the reliability and validity of the research. According to Orodho (2003), a pilot test helps to test the reliability and validity of data collection instruments. Validity refers to the extent to which an instrument measures what is supposed to measure data need not only to be reliable but also true and accurate. If a

measurement is valid, it is also reliable (Joppe, 2000). The pilot test comprised of five senior staff at the company who were not involved in the final study.

3.4.1 Validity

The content of validity of the data collection instruments was determined through discussing the stated questions in the interview guide with the managers for the pilot. Validity was determined by the use of Content validity Index (C.V.I). C.V.I of between 0.7 and 1 shows the instruments to be valid for the study (Orodho, 2003).

3.4.2 Reliability

Reliability refers to the consistence, stability, or dependability of the data. Whenever an investigator measures a variable, he or she wants to be sure that the measurement provides dependable and consistent results (Cooper & Schindler, 2003). A reliable measurement is one that if repeated a second time gives the same results as it did the first time. If the results are different, then the measurement is unreliable (Mugenda & Mugenda, 2003). To measure the reliability of the data collection instruments an internal consistency technique using Cronbach's alpha was applied to the gathered data (Mugenda & Mugenda, 2003). Cronbach's alpha is a coefficient of reliability that gives an unbiased estimate of data generalizability and an alpha coefficient of 0.60 or higher indicates that the gathered data is reliable as it has a relatively high internal consistency and can be generalized to reflect opinions of all respondents in the target population (Zinbarg, 2005).

3.6 Data Analysis

The completed questionnaires were edited for completeness and consistency. Quantitative data collected was analyzed by the use of descriptive statistics using SPSS and presented

through percentages, means, standard deviations and frequencies. The data was split down into different aspects of e-government and service delivery.

The information collected was presented using bar charts, graphs and pie charts and in prose-form. Descriptive data was presented using measures of central tendency like mean and standard deviation. The researcher conducted a correlation analysis in order to establish the effects of e-government strategy on service delivery in the government ministries.

CHAPTER FOUR
DATA ANALYSIS AND PRESENTATION

4.1 Introduction

This chapter presents the findings of the study, analysis of data and presentations of major findings. For the purpose of demonstrating the relationship among the various variables, the data is presented in the form of tables, frequencies and percentages where applicable.

The study targeted 36 respondents from which 32 filled in and returned the questionnaires making a response rate of 88.9%. This response rate was excellent and representative and conforms to Mugenda and Mugenda (1999) stipulation that a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good and a response rate of 70% and over is excellent.

4.2 Demographic Information

The study sought to establish general information about the respondents and their fitness in providing data required by this study. To this end, the study sought to establish the number of years that the respondents had worked in Government. The findings were as discussed below.

Table 4.1: Working in the Government

	Frequency	Percent
Less than 5 years	2	6.3%
5-10 years	3	9.4%
11-15 years	8	25.0%
Above 15 years	19	59.4%
Total	32	100.0%

Source: Field Data

From the findings of the study, majority (59.4%) of the respondents had worked in the government for over 15 years while 6.3% had worked in government for less than 5 years. it can therefore be deduced that majority of the respondent had been working in government for more than 15 years hence were more knowledgeable on the information sought by these study as they had experienced both sides of Government.

4.2 Effects of E-Government on Service Delivery

The study sought to establish the effects of e-government on service delivery at Government ministry level. The study considered several areas of service delivery including: data sharing, transaction processing, records management, online access of facilities, speed of service delivery, staff productivity among others. The results are given in the table 4.2.

Table 4.2: Database Sharing

	Frequency	Percent
Disagree	3	9.4%
Neutral	2	6.3%
Agree	17	53.1%
Strongly agree	10	31.3%
Total	32	100.0%

Source: Field Data

The results in the table shown that, majority (53.1%) of the respondents agreed that implementation of e-government had allowed database sharing, 31.3% strongly agreed, 9.4% disagreed while 6.3% were neutral. This is an indication that implementation of e-government had allowed database sharing thus reducing the tendencies of data storage duplication which would be expensive and difficult in maintaining.

Data finding on whether implementation of e-government had reduced the time taken to process a transaction was as presented in the table 4.3 below:

Table 4.3: Transaction Process

	Frequency	Percent
Disagree	1	3.1%
Agree	12	37.5%
Strongly agree	19	59.4%
Total	32	100.0%

Source: Field Data

The results in the table shown that, 59.4% of the respondents strongly agreed that implementation of e-government had reduced the time taken to process a transaction, 37.5% agreed while 3.1% were disagreed. It can be deduced that e-government implementation into government ministries had reduced the time taken to process a transaction. Unlike before, the introduction of e-government, information retrieval had become easy for staff hence improved information management. Information sharing also promoted faster decision making because information was readily available and could be accessed as and when required by the relevant officers.

The study further sought to establish whether implementation of e-government had improved record management. The findings were as presented in the table 4.4.

Table 4.4: Record Management

	Frequency	Percent
Agree	5	15.6%
Strongly agree	27	84.4%
Total	32	100.0%

Source: Field Data

From the data findings, majority (84.4%) of the respondents strongly agreed that implementation of e-government had improved record management while 15.6% agreed. This is an indication that implementation of e-government led to improvement in the management of records. The respondents indicated that as a result of e-government,

information retrieval became easy as they did not need to visit archives if they needed information but most of the information was easily available electronically.

Data findings on whether implementation of e-government had enabled citizens to access some facilities online was as presented in the table 4.5:

Table 4.5: Online Access of Facilities

	Frequency	Percent
Strongly disagree	9	28.1%
Disagree	14	43.8%
Neutral	3	9.4%
Agree	4	12.5%
Strongly agree	2	6.3%
Total	32	100.0%

Source: Field Data

The results in the table shown that, 43.8% of the respondents disagreed that implementation of e-government had enabled citizens to access some facilities online, 28.1% strongly disagreed, 12.5% agreed, 9.4% were neutral while 6.3% were strongly agreed. The findings imply that implementation of e-government had not yet facilitated online access of facilities in majority of the ministries. However, online information on basic information and services provided by different government ministries was availed to the citizens. In addition, most of the respondents indicated that the kind of information available online included documents that citizens filled in more often. This therefore allowed remote access to some of these forms for citizens to download as and when required. The respondents also indicated that information availed online included tender documents for request of proposals.

Data findings on whether implementation of e-government had increased the speed with which citizens were served were as presented in the table 4.6 below:

Table 4.6: Speed of Service Delivery

	Frequency	Percent
Disagree	12	37.5%
Neutral	1	3.1%
Agree	13	40.6%
Strongly agree	6	18.8%
Total	32	100.0%

Source: Field Data

The results in the table show that, 40.6% of the respondents agreed that implementation of e-government had increased the speed with which citizens are served, 37.5% disagreed, 18.8% strongly agreed while 9.4% were neutral. It can be deduced that despite the resulting increase of the speed with which citizens are served due to implementation of e-government, there is still incidences were the speed has not improved.

Data findings on whether implementation of e-government had seen a reduction in head count at the Ministry were as presented in the table 4.7 below.

Table 4.7: Head Count at the Ministry

	Frequency	Percent
Strongly disagree	1	3.1%
Disagree	12	37.5%
Neutral	7	21.9%
Agree	9	28.1%
Strongly agree	3	9.4%
Total	32	100.0%

Source: Field Data

The results in the table show that, majority (37.5%) of the respondents disagreed that implementation of e-government had seen a reduction in head count at the Ministry, 28.1% agreed, 21.9% were neutral, 9.4% strongly agreed while 3.1% strongly disagreed. These findings show that the headcounts at the ministry remained constant despite the implementation of e-government. The implementation of e-government did not affect

head count at the ministries as most of the process had not been automated but just basic operations had been automated.

Study findings on whether implementation of e-government had improved staff productivity were as presented in the table 4.8.

Table 4.8: Staff Productivity

	Frequency	Percent
Neutral	8	25.0%
Agree	15	46.9%
Strongly agree	9	28.1%
Total	32	100.0%

Source: Field Data

The results in the table show that, majority (46.9%) of the respondents agreed that implementation of e-government had improved staff productivity, 28.1% strongly agreed, while 25.0% were neutral. This is an implication that the staff productivity had been enhanced through the implementation of e-government. As information management improved in the ministries, the staff in these ministries had easy access to records and thus the time spend in archives looking for manual files was utilized in doing other things beneficial for the ministries hence improved employee productivity. In addition, the respondents indicated that it became easier to do some tasks which were initially manual. Findings on whether implementation of e-government had eased working procedure is as presented in the table 4.9.

Table 4.9: Working Procedure

	Frequency	Percent
Disagree	3	9.4%
Neutral	2	6.3%
Agree	17	53.1%
Strongly agree	10	31.3%

Total	32	100.0%

Source: Field Data

The results in the table show that, 53.1% of the respondents agreed that implementation of e-government had eased working procedure, 31.3% strongly agreed, 9.4% disagreed while 6.3% were neutral. It can be deduced that the working procedures had reduced because of the implementation of e-government. The respondents indicated that in some cases, they did not require to move physical files to have approvals on some items. This eased bulk of the documentation papers moving from office to office thereby easing working procedures.

The study further sought to find out whether implementation of e-government had reduced customer crowding in the office. The findings are presented in the table 4.10.

Table 4.10: Customer Crowding

	Frequency	Percent
Strongly disagree	2	6.3%
Disagree	12	37.5%
Neutral	1	3.1%
Agree	14	43.8%
Strongly agree	3	9.4%
Total	32	100.0%

Source: Field Data

The results in the table show that, 43.8% of the respondents agreed that implementation of e-government had reduced customer crowding in the office, 37.5% disagreed, 9.4% strongly agreed, 6.3% strongly disagreed while 3.1% were neutral. This showed that overcrowding and reduced but it was still evident in other ministries. As more and more information on services provided by the ministries was availed online, and some forms availed online for customers to download, the number of enquiries on some issues

reduced tremendously in some departments. This allowed staff to serve the few citizens working in easily hence a reduction in crowding in offices.

Data findings on whether implementation of e-government had reduced the costs of delivering services in the ministry were as presented in the table 4.11.

Table 4.11: Services Delivery Costs

	Frequency	Percent
Agree	23	71.9%
Strongly agree	9	28.1%
Total	32	100.0%

Source: Field Data

The results in the table show that, 71.9% of the respondents agreed that implementation of e-government had reduced the costs of delivering services while 28.1% strongly agreed. It can be deduced that the costs of service delivery have been cut by a great margin through the implementation of e-government.

Respondents' rating on the present e-government services was as presented in the table 4.12 .

Table 4.12: Present E-government Services

	Frequency	Percent
Very effective	2	6.3%
Effective	14	43.8%
Neutral	5	15.6%
Ineffective	11	34.4%
Total	32	100.0%

Source: Field Data

The results in the table show that, majority (43.8%) of the respondents rated the present e-government services as effective, 34.4% rated them ineffective, 15% rated them neutral while 6.3% rated them very effective. This implied that the present e-government services were effective in some ministries while in other ministries, they were ineffective.

The extent to which the implementation of e-government affected provision of services at the Ministry level is presented in the table 4.13.

Table 4.13: E-government Effects on Service Provision

	Frequency	Percent
Moderate extent	4	12.5%
Great extent	23	71.9%
Very great extent	5	15.6%
Total	32	100.0%

Source: Field Data

The results in the table show that, 71.9% of the respondents agreed to a great extent that the implementation of e-government had affected provision of services at the Ministry level, 15.6% agreed to a very great extent while 12.5% agreed to a moderate extent. it can be deduced that provision of services at the Ministry level had been affected to a great extent by the implementation of e-government.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter provides the summary of the findings from chapter four, the conclusions and recommendations of the study based on the objectives of the study. The study aimed at investigating the effects of e-government strategy on service delivery in the government ministries.

5.2 Summary

The findings of the study established that 59.4% of the respondents had worked in the government for over 15 years with 25.0% of the respondents indicating that they had worked in the government for 11-15 years. Regarding the effects of e-government on service delivery, the study established that majority of the respondents was in agreement that implementation of e-government had allowed database sharing followed by 31.3% of the respondents who strongly agreed that implementation of e-government had allowed database sharing. The study found out that 59.4% of the respondents were strongly in agreement that implementation of e-government had reduced the time taken to process a transaction.

Regarding their effects of e-government implementation on record keeping, 84.4% of the respondents strongly agreed that implementation of e-government had improved record management. The findings of the study established that 43.8% of the respondents were in disagreement that implementation of e-government had enabled citizens to access some facilities online. With regard to the speed with which customers were served, the findings of the study established that 40.6% of the respondents agreed that implementation of e-

government had increased the speed with which citizens are served with 37.5% of the respondents disagreeing.

With regard to head count at the Ministries, The findings of the study further established that majority of the respondents were in disagreement that implementation of e-government had seen a reduction in head count at the Ministry. The study findings established that 43.8% of the respondents agreed that implementation of e-government had reduced customer crowding in the office. The findings of the study further established that 43.8% of the respondents rated the present e-government services as effective. The study findings established that the implementation of e-government had affected provision of services at the Ministry level to a great extent.

5.3 Conclusions

The study concludes that implementation of e-government enables database sharing, lowers the costs of delivering services reduces time taken to process a transaction and leads to improved management of records. The study further concludes that implementation of e-government has eased working procedure and improved staff productivity.

The study further concludes that with implementation of e-government, the speed with which customers are served varies among the Ministries. The study concludes that in some ministries, there is an increment in the speed of service to the citizens but in other ministries, the implementation of e-government has not increased the speed of service to the citizens.

The study concludes that that implementation of e-government had not enabled citizens to access some facilities online. The study further concludes that in majority of the ministries, that implementation of e-government has not seen a reduction in head count at the Ministry. This has been seen in few ministries.

It can be concluded that customer crowding is still evident despite the implementation of e-government. However the study concludes that e-government implementation has contributed to reduction in customer crowding in some ministries. The study concludes that e-government services are effective but not in all ministries.

5.4 Limitations of the Study

This study faces several limitations ranging from respondents withholding key information for the study due to government policies and procedures to respondents fearing of exposing information about their ministries. To overcome this challenge, the researcher carried with her an introduction letter from the University and assured the respondents that the information they gave would be treated with confidentiality and was used purely for academic purposes.

The study faced financial limitations. The costs involved in conducting the study were high and the researcher did not have all the funds hence she was forced to squeeze within a small budget to complete the study on time.

5.5 Recommendations

5.5.1 Recommendations with Policy Implications

The study established that e-government services are effective. However, in some ministries it was ineffective. This study therefore recommends that the policy makers should establish policies that will ensure that the process of e-government implementation is regulated so as to ensure that the process is effective in all ministries.

The study found out that despite implementation of e-government, there speed of service delivery to the in some ministries had not yet improved. The study further established that overcrowding was still evident despite the adoption of e-government in the ministries. This study therefore recommends that the management team charged with the responsibility of ensuring successful implementation process should scrutinize into the process so as to in order to ensure that the it is effectively implemented in order to increase the speed of service delivery at the ministries which might result to reduction in the overcrowding cases.

The study established that despite the implementation of e-government, the citizens were unable to access some facilities online. This study therefore recommends management teams responsible for e-government implementation at the ministries should ensure that the process leads to promoting online access of facilities by the citizen.

5.5.2 Recommendations for Further Study

This study focused on investigating the effects of e-government strategy on service delivery in the government ministries. More research needs to be done on the challenges which e-government implementation process in the government ministries. Also, research

need to be done on the processes of e-government implementation in non-governmental sector in Kenya. Research should as well on e-government implementation processes at county levels.

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APPENDICES

Appendix I: List of Ministries in Kenya

1. Ministry of Interior and Coordination of National Government.
2. Ministry of Devolution and Planning.
3. Defence
4. Foreign Affairs.
5. Education.
6. The National Treasury.
7. Health.
8. Ministry of Transport and Infrastructure.
9. Environment, Water and Natural Resource.
10. Land, Housing and Urban Development.
11. Ministry of Information, Communications and Technology
12. Sports, Culture and the Arts.
13. Labour, Social Security and Services.
14. Energy and Petroleum.
15. Agriculture, Livestock and Fisheries.
16. Industrialization and Enterprise Development.
17. Commerce and Tourism.
18. Mining

Source: (Legal Notice No.183 of 2013)

Appendix II: Questionnaire

EFFECTS OF E-GOVERNMENT STRATEGY ON SERVICE DELIVERY IN THE GOVERNMENT MINISTRIES

SECTION A: DEMOGRAPHIC INFORMATION

1. Name of the Ministry (Optional) _____
2. Your position in the Ministry _____
3. Number of years worked in the Ministry _____
4. Number of Years worked in the Government _____

SECTION B: EFFECTS OF E-GOVERNMENT ON SERVICE DELIVERY

Below are statements on the influence of e-Government implementation on service delivery at the Ministry level. On a scale of 1-5(where 1= strongly disagree, 2= disagree, 3= neutral, 4= agree and 5= strongly agree) please rank your level of agreement with each statement by ticking the appropriate box.

	1	2	3	4	5
5. Implementation of e-government has allowed database sharing					
6. Implementation of e-government has reduced the time taken to process a transaction					
7. Implementation of e-government has improved record management					
8. Implementation of e-government has enabled citizens to access some facilities online					
9. Implementation of e-government has reduced increased the speed with which citizens are served					
10. Implementation of e-government has seen a reduction in head count at the Ministry					
11. Implementation of e-government has improved staff productivity					
12. e-government implementation has eased your working procedure					

13. Customer crowding in the office has decreased following e-government implementation					
14. Implementation of e-government has reduced the costs of delivering services in your Government ministry					

15. How do you rate the present e-government services?

Very effective [ ]

Effective [ ]

Neutral [ ]

Ineffective [ ]

Very ineffective [ ]

16. What are your suggestions to make e-government more effective in Kenya?

_____

_____

_____

17. To what extent has the implementation of e-government affected provision of services at the Ministry level?

Very great extent [ ]

Great extent [ ]

Moderate extent [ ]

Little extent [ ]

No extent [ ]