

**EFFECT OF E-GOVERNMENT ON SERVICE DELIVERY
IN THE PUBLIC SERVICE OF KENYA**

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DECLARATION

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

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DEDICATION

To my exceptionally precious charming late parents. My father Mohamed Farah and my mother Halima Salah who made me who I am. Their shining example, their passion for knowledge and education carried me through. I dedicate this thesis to them because they enriched my life and always provided me with love, kindness, humour, comfort, and discipline. Because of you, I have permanently ingrained memories. You will always be in my heart and mind. I Love You. May Allah (SWT) grant you Janatul Firdaus and Bless your soul, Amin.

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ACRONYMS AND ABBREVIATIONS

ANOVA	Analysis of Variance
CR	Contingent Reward
CSDT	Cohesive Service Delivery Theory
GOK	Government of Kenya
IA	Idealized Attributes
IB	Idealized Behaviour
IC	Individualized Consideration
IM	Inspirational Motivation
IS	Intellectual Stimulation
LF	Laissez-Faire Leadership style
MBE (A)	Management-By-Exception-Active
MBE (P)	Management-By-Exception-Passive
MLQ	Multi-factor Leadership Questionnaire
NPM	New Public Management

PSCK	Public Service Commission of Kenya
SPSS	Statistical Package for Social Sciences
TF	Transformational Leadership style
UNPSA	United Nations Public Service Awards

DEFINITION OF TERMINOLOGIES

The following terms will carry the stated meaning in this study:

- Automation of Records:** It is the efficient and systematic control of the creation, receipt, maintenance, use and disposition of records, including the processes for capturing and maintaining evidence of and information about organizations activities and transactions by use of ICT (Mbecke, 2014).
- E-Government:** is the use of Information and Communication Technology (ICT) to transform government by making it more accessible, effective and accountable (Tamrakar, 2010).
- Integrated Service approach:** Is the delivery of services in a “One Stop Shop” Model with strong emphasis in customer service excellence to deliver a wide range of services to the public from a single point (Mutuku, 2015).
- Interactive Participation:** is the process through which stakeholders’ input and share control over development initiatives, decisions and resources which affect them (Tamrakar, 2010).
- Leadership Style:** The pattern of interactions between leaders and subordinates. It includes controlling, directing, indeed all techniques and methods used by leaders to motivate subordinates to follow their instructions (Caiden, 2011).

- Online Service:** The use of electronic delivery for government information programmes, strategies and services through portals and one stop shop concept (Caiden, 2011).
- Service Delivery:** The provision of a service or product by the government, to the citizens as expected by the citizens (Mbecke, 2014).
- Transactional Leadership:** Occurs when leaders broaden and elevate the interests of their employees, when they generate awareness and acceptance of the purposes and mission of the group, and when they stir their employees to look beyond their own self-interest for the good of the group (Bass, 1997).
- Transformational Leadership:** This is the process of influencing major changes in attitudes and assumptions of organizational members and building commitment for the organizations' mission and vision (Tamrakar, 2010).

ABSTRACT

E-government supports and simplifies services to improve easy access to information, enhance participation, efficiency, prompt service delivery, reduce corruption, and accountability. In consideration of this, governments around the world have embraced the technology to transform service delivery and facilitate the citizens' demands. Kenya introduced e-government strategy and bolstered it with the implementation of one stop shop services known as Huduma Centres to improve service delivery, enhance communication and provide information within government, to the citizenry and to the business community. However, in spite of the e-government's potential and extensive benefits through Huduma services, many questions still linger on whether the technology has raised any value to service delivery. Hence, the study was undertaken to assess the effect of e-government on service delivery in the public service of Kenya and was guided by the following specific objectives: To determine the effect of integrated service approach on service delivery in the public service of Kenya, to examine the effect of online service on service delivery in the public service of Kenya, to establish the effect of interactive participation on service delivery in the public service of Kenya, to explore the effect of automation of records on service delivery in the public service of Kenya and to assess the moderating role of leadership styles on the relationship between e-government and service delivery in the public service of Kenya. The research was underpinned by the new public management theory, coherent service delivery theory, systems theory and full range leadership theory. E-government was the independent variable and service delivery as the dependent variable. Leadership styles was explored to determine its moderating role on the effects of e-government on the service delivery in the public service. The target population was 5756 Huduma Centres employees from 51 centres in Kenya. The study had a sample size of 361. The study employed cross-sectional survey research design. Stratified sampling followed by simple random sampling was used for this study. Primary data was collected using a questionnaire. The pilot test was carried out at the Eldoret Huduma Centre. Both descriptive and inferential statistical techniques were used. The pilot test was conducted to detect weaknesses in the research design and data collection instrument. Of the 361 respondents, 300 completed the questionnaires giving a response rate of 83%. Cronbach's alpha was used to test for internal reliability of each variable used in the study. Data analysis was done using descriptive statistics, correlation and regression analysis. The findings revealed that e-government had a significant effect on service delivery in the public service of Kenya. The study found that the constructs of e-government of integrated service delivery approach, online service, interactive participation and automation of records all had positive and significant effect on service delivery. Additionally, leadership styles were also found to have moderating effect on the relationship between e-government and service delivery. The study concluded that e-government had a significant effect on service delivery. It is recommended that e-government be strengthened and supported to further enhance service delivery. Both transformational and transactional leadership styles moderated the relationships between the constructs of e-government and service delivery. Transformational leadership style was found to positively moderate the link between e-government and service delivery. Thus, the constructs of e-government and transformational leadership style need to be entrenched and expounded to enhance service delivery in the public service in Kenya.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The primary responsibility of government is to deliver prompt effective and efficient quality services to its citizens at reasonable costs. To undertake this fundamental obligation, governments use the public service as the principal organ to translate their policies and plans into tangible goods and services (Oyedele, 2015). That is why the success of service delivery in any government is determined by the efficacy of the public service since it is a crucial structure in a country (Adei, 2008).

However, over the years, service delivery has been slow, unresponsive, bureaucratic and inefficient. Customers or clients have been left to crisscross constellation of offices in pursuit of services only to encounter long procedures, delays, stuffy offices manned by recalcitrant officials. Additionally, before submitting their application forms, clients have to go through different clumsy procedures and processes, spending a lot of time filling numerous documents for a single service (Bekkers, 2005; Tamrakar, 2010).

Many government agencies operate as independent entities which create confusion often resulting in giving ambiguous directions that force clients to move from one office to seek clarification or further guidance and services. Again, these movements are usually rigid, ineffective, cumbersome and bureaucratic processes supported by public servants who have turned themselves into bosses and perceive others as subordinates or subjects. In consequence, the level of accountability in the service delivery and among public servants has considerably deteriorated (Karim, 2015; World Bank, 2005; Sherif, 2006).

The underperformance in the public service is further contributed by employees' tardiness, bribery, corruption, unethical conduct, archaic systems, poor working conditions that lead to opportunistic obscurities in the delivery of service (Ezeoni, 2004). Correspondingly, office operations are full of labor-intensive paper work,

inconveniences, delays, distrust and unnecessary movement between offices causing numerous inconvenience and difficulty. In many instances, the public service is multilayered, with overlapping roles and functions, brokerage, duplication of files, paper wastage, difficulty in accessing information, loss of data and general inefficiency of operations (Mutula, 2008).

The service in public service is synonymous with chronic absenteeism, inefficiency, long queues, procrastinating officials, inward-looking culture, slow decision-making devoid of seamless interaction and coordination. In addition, governments have been faulted for working at cross purpose with diverse methodologies handled through complicated procedures by discourteous personnel usually in cramped spaces and shabby ambience (Schellong, 2007; Caiden, 2011).

In general, government delivery mechanisms are impeded by corruption, competing interests, large capability gaps, and lack of collaboration amongst agencies and stakeholders. These challenges instigate pervasive materialism, indiscipline and dissatisfaction hence increased pressure on governments to improve the service delivery to be more efficient and effective in delivering appropriate, fast and friendly services (Alshehr & Drew, 2010; OECD, 2013).

In this regard, governments realized e-government as a critical and strategic tool with potential to provide efficient and effective services and generally improve government operations (Gnan *et al.*, 2013). Consequently, governments embraced began e-government in anticipation to increase efficiency, effectiveness, transparency, simplify procedures, improve record management, reduce corruption and enhance attitudinal change. Further, e-government aims at shifting from the silo mentality, bureaucratic, and paper-based transactional approach towards electronically propelled systems to develop participation, accountability, transparency and accessibility (Monga, 2008).

Owing to the recognition of the perceived potential benefits of electronic services many countries have undertaken deliberate steps to strengthen the efficiency and quality of public service delivery by adopting e-government. This created a wave across the world as increasingly many governments embraced the technology to improve their services and respond to demands for effective service delivery (Al-Sobhi & Weerakkoddy, 2010; Ebrahim & Irani, 2005).

In general, the e-government can realize reduced process time, improved service, reduced administrative burden, increased efficiency, cost reductions and enhanced revenues making government more efficient, result oriented and citizen focused. Further, the tool has the potential to support customers, improve service delivery through cross-sector cooperation and team work and in so doing make information sharing convenient in the integration and interoperation of services (Mutuku, 2015; Jimenez *et al.*, 2014).

Considered a prominent global phenomenon due to its perceived potential effect on service delivery in public service, many of the developed countries have adopted e-government. The leading countries are Canada, Singapore and the USA), followed by Australia, the Netherlands, Germany, Hong Kong and France). The third group comprise New Zealand, Spain, Belgium and Japan followed by Brazil and Italy. Regionally, Europe leads with the highest overall regional e-government Development Index followed by the Americas. And so, a total of 179 out of 192 countries have implemented e-government and identified it as a fundamental to reform and modernization tool governments across the world (UN, 2008).

In Africa today all governments have implemented some form of e-government services to improve information flow, improve public participation, promote productivity among the public servants, and improve delivery of services (Njuru, 2011). Countries such as South Africa, Mauritius, Senegal and Mozambique have shown serious commitment, by setting up institutional and regulatory policy frameworks for e-government development (Maumbe *et al.*, 2008; Bwalya & Healy, 2010).

In line with other governments around the world, the government of Kenya has taken initiatives for providing better services to the citizen. Kenya introduced e-government as a strategy to improve service delivery, enhance communication and information within government, within the citizenry and business community (GOK, 2006) and bolstered this with the formulation ICT Policy in 2006 to implement electronic governance as a tool to improve quality of service delivery, enhance efficiency and help in the fight against corruption to make government more result oriented, efficient and citizen-centred (GOK, 2006).

It further established the Huduma Kenya Programme as a flagship project to transform the public service through an Integrated Service Delivery (ISD) approach aimed at building citizen-centered public service delivery through diverse means with the application of digital technology. Consequently, one-stop-shop service centres known as Huduma Centres were established across the country to provide access to various services. The initiated program focusses on the delivery of services in a one stop shop model to deliver a wide range of services to the public from a single point (Mutuku, 2015).

The centres provide a one stop point of access to a wide range of services that include National Hospital Insurance Fund Registration and Claims, Issuance of Police Abstracts, Student Loan Application and Repayment amongst others. With the most sort after services being Replacement of Duplicate Identity Cards, Payment of land rates and rent as well as Search and Registration of Business Name (Ministry of Devolution & Planning Newsletter, 2014).

This seamless initiative provides multiple-channel, single-window access to between 30 to 66 different government services at one-stop shop service operations based on customer registration upon arrival meant to check long queues, corruption, inconvenience, efficiency and reduce cost. In addition, Huduma Centres are expected to break the silo operations to enhance access to information and motivate employees by enabling them carry out their duties in a more effective and efficient way due to the help

of the ICT applications. Employees can easily exchange and share information and the managers can the chance to monitor the work flow. And in so doing create a more productive and efficient work environment (Letch & Carroll, 2008).

Kenya's e-government outlines the objectives and processes for the modernization that encompass the entire spectrum of government operations towards enhancement of transparency, accountability and good governance to make government more efficient, result oriented and citizen focused. However, despite its potential and extensive expected benefits to accelerate reforms in the public service delivery there are concerns about public service delivery in Kenya. According to Njuru, (2011) there is no evidence that e-government is enhancing delivery of public services or improving information, productivity or participation. It is against this backdrop that this study determined the effect of e-government on service delivery in the public service of Kenya.

1.2 Statement of the Problem

Over the years, public service delivery has been plagued by lack of accountability, transparency, corruption, archaic systems, poor working conditions, and often insensitive services that lead to inefficiency, rigidity, ineffectiveness, dissatisfaction and general underperformance (Bekkers, 2005; Alshehr & Drew, 2010).

In realization of this, governments around the world are transforming their public services in order to provide services that are customer centered, cost-efficient, and user-friendly (Gnan *et al.*, 2013). The transformation revolved around e-government, a radical tool with potential benefits to enhance coordination, transparency, participation, accessibility, accountability, availability, timeliness and convenience. Consequently, governments embraced e-government (Monga, 2008).

Like other countries, the public service in Kenya has been underperforming and the service delivery has not been serving within its most optimal capability (Hope, 2012). In response, the government launched e-government and subsequently implemented an integrated service delivery program known as Huduma centers to deliver wide ranging services from a single point modelled along one stop shop (Mutuku, 2015).

However, in spite of the potential and extensive benefits attributed to e-government specifically through Huduma Centers many questions and exceptions still remain on whether the electronic application has made the expected contribution to service delivery (Njuru, 2011). This study therefore sought to determine the effect of e-government on service delivery in the public service of Kenya and the moderating effect of leadership styles on the link between e-government and service delivery in the public service of Kenya. Hence, the need to fill these gaps.

1.3 Objectives of the Study

The study was guided by a general objective and five specific objectives.

1.3.1 General Objective

The general objective of the study was to determine the effect of e-government on the service delivery in the public service of Kenya.

1.3.2 Specific Objectives

The study was guided by the following specific objectives:

- i. To determine the effect of integrated service approach on service delivery in the public service of Kenya
- ii. To examine the effect of online service on service delivery in the public service of Kenya

- iii. To establish the effect of interactive participation on service delivery in the public service of Kenya
- iv. To explore the effect of automation of records on service delivery in the public service of Kenya
- v. To assess the moderating role of leadership styles on the relationship between e-government and service delivery in the public service of Kenya.

1.4 Hypotheses

The study tested the following hypotheses:

H₀₁: Integrated service approach does not affect service delivery in the public service in Kenya.

H_{a1}: Integrated service approach affects service delivery in the public service in Kenya.

H₀₂: Online service does not affect service delivery in the public service in Kenya.

H_{a2}: Online service affects service delivery in the public service in Kenya.

H₀₃: Interactive participation does not affect service delivery in the public service in Kenya.

H_{a3}: Interactive participation affects service delivery in the public service in Kenya.

H₀₄: Automation of records does not affect service delivery in the public service.

H_{a4}: Automation of records affects service delivery in the public service in Kenya.

H₀₅: Leadership style does not moderate the relationship between e-government and service delivery in the public service in Kenya.

H_{05a}: Leadership style moderates the relationship between e-government and service delivery in the public service in Kenya.

1.5 Significance of the Study

This study is significant since it deals with an important matter of understanding the effect of e-government in the transformation of service delivery in the public service of Kenya. E-government is considered one of the major strategic tool of transformation to create an efficient, motivated, results-oriented and citizen-focused public service. This is because an efficient public service is pivotal for enhanced national development leading to high standards of living as envisaged by Kenya's Vision 2030. The use of technology is thus a paradigm shift in enhancing the performance of the public service by building and implementing service delivery systems that will ensure efficiency, quality, speed, convenience and dignity in service delivery.

This study investigates the effect of e-government on service delivery in the public service of Kenya. Not enough research has been done to investigate the e-government constructs or sub variables and what is available is very broad and does not address specific matters consistent with e-government dimensions. In addition, the need to consider some extraneous factors such as leadership styles among others as moderating factors. This is what makes this study very distinctive and therefore significant.

This study will provide the necessary parameters and standards to address the effect of e-government and also enable the decision makers, policy makers and managers in government as well as other organizations to benefit from the results of this study to enhance performance. Also, the study will encourage or stimulate further research in some of the areas as recommended in this study. Hence, provides a reference framework for other scholars to conduct similar studies.

1.6 Scope of the Study

The study confined itself to the effect of e-government on service delivery in the public service of Kenya. The conceptual scope of this study was limited to e-government operations in the 51 Huduma Centres across the country. Huduma Centres are instruments of e-government modeled along one stop shop service. The e-government constructs studied are integrated service approach, online service, interactive participation and automation of records all forming as independent variables and service delivery as dependent variable. Leadership styles was considered as a moderating variable while service delivery was the response variable.

The content scope of the study was informed by the fact despite introduction of ICT driven service delivery, the public service in of Kenya is still characterized by poor service delivery hence the need to determine the effect of e-government on service delivery in the public service of Kenya. Geographically, the study focused on Kenya. Kenya is found in Eastern Africa and it is bordered by Uganda to the west, Ethiopia to the north, and Tanzania to the south and Somalia to the east. Also, to the east Kenya borders the Indian Ocean, between Somalia and Tanzania. The geographic coordinates of Kenya are 1 00 N, 38 00 E.

1.7 Limitations of the Study

The research had some limitations. First, data collection was undertaken in very busy settings resulting into some incomplete questionnaire responses. To overcome this, the researcher organized return visits to the affected Huduma Centres to ensure that the questionnaires were appropriately filled. Secondly, some respondents were apprehensive in giving information fearing repercussions or implicating their seniors. To solve this, the researcher produced the research permit and further guaranteed them that the information provided was purely for academic purposes and would be treated with utmost confidentiality. Thus, in general, the limitations cited did not affect the results and findings of the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The chapter presents a review of the literature on e-government and its effect on service delivery. Theories underpinning the study are examined. The section also explains the conceptual framework, review of literature of the variables, critique of the existing literature, research gaps and finally the summary of the chapter.

2.2 Theoretical Framework

A theoretical framework refers to the theory that a researcher chooses to conduct research (Malhorta, 2007). It presents a general collection of ideas or assumptions within which a study fits and gives support to the thinking of the researcher. For purposes of this study, the researcher reviewed: New public management theory, coherent service delivery theory, systems theory and full range theory of leadership.

The term e-government emerged in the late 1990 and since then many governments have launched e-government in order to provide electronic information and services to citizens and businesses. It is believed that the technology has the potential to improve internal government operations to reform service delivery. Like any other modern concepts, e-government has multiple definitions.

Mbecke (2014) defines e-government as broad-based initiatives that leverage on the capabilities of ICT to deliver high quality, seamless and integrated public services; enable effective constituent relationship management; and support the economic and social development goals of citizens, business, and civil society at local, state, national and international levels.

Caden (2011) defines e-government as the “use of information and communication technologies to offer citizens and businesses the opportunity to interact and conduct business with government by using different electronic media. Thus, a key instrument to enhance better interaction, effectiveness and efficiency in the delivery of government services and thereby improving transparency and accountability.

For the purpose of this study, the definition provided by World Bank (2010) ‘as a goal to provide easier, cheaper, more transparent interaction between governments, citizens, business and institutions’ was adopted. That is, the use of electronic machinery to improve the efficiency, effectiveness, transparency and accountability of government. The consequential gains are evidenced through less corruption, increased transparency, convenience, seamless service and/or cost reductions.

2.2.1 New Public Management Theory

New Public Management (NPM) is a set of management approaches and techniques practiced by the private sector and emulated in the public service (Mongkol, 2011). The NPM became known due to widespread organizational disappointments in the UK, Canada, Australia and New Zealand in which the said countries were confronted with wastage of resources, bureaucratic, unresponsive, inefficient and corruption in public services (Pollitt, Van Thiel & Homburg, 2007).

The NPM is about of re-engineering or re-inventing of government. It calls for changes in the structure, their culture and management of public service systems by focusing on efficiency, cost-reduction; setting benchmarks and targets. The advent of NPM is a departure from rigidity lethargy, inaccessibility, and corruption that inhibited creativity and innovations. NPM is seen as the cure of maladies in the public service (Christensen & Lægreid 2007).

Thus, NPM ended the traditional public administration and set in motion an advanced phenomenon in modernizing the public service through adoption of the private sector

superior customer service orientations. It brought in fundamental changes in the relationships between groups and government agencies to create changes in the public service to enhance efficiency in service delivery (Le Grand, 2007; O'Flynn, 2007)).

The NPM inspired a wave of reform in the hope that it will enhance performance management to increase efficiency and effectiveness of public services. As a result, many countries embraced NPM to deal with waste, enhance accountability, cut red-tape; put customers first; inspire employees and produce cost effective government (Hughes, 2003).

Kenya introduced e-government to improve service delivery by transforming the public service. The technology improves the efficiency of government operations as well as enhances good governance and transparency. Looking at the objectives of e-government, it is evident that it supports the NPM in its endeavors to lower costs, provide better service, contain deficits, and incorporate new technologies (Furuholt & Matotay, 2010).

Given that, e-government can enhance public service reforms, in effect it has the potential to achieve some of the fundamental NPM principles. Therefore, e-government can be seen as a reform product advanced by the NPM as a change package that increases efficiency and effectiveness of government delivery by providing access to information and services online at relatively low cost (Chen, 2009).

Thus, while ICT has the ability to transform the public service to remedy pervasive bureaucracy, lack of accountability, corruption, people's expectations and service delivery the NPM just like e-government oriented towards outcomes and efficiency through better management operations. (Pollitt & Bouckaert, 2003; Sarker, 2006).

E-government growth is often seen as a result of the emergence of NPM brand of restructuring in public service. It is on this basis that the theory was considered critical and employed in this research to validate e-government as a contemporary tool to modernize the service delivery in the public service. It informs e-government constructs

of seamless service, electronic service, automation of records and service delivery variables. The interconnection between NPM core ideas and e-government is thus explained by the potential benefits that ICT can bring to the re-organization of the public service. Building on the experiences of the private sector, ICTs are perceived as a powerful tool to rationalize, streamline and re-engineer organization procedures, hence the use of e-government (Cordella, 2007).

The theory focuses on restructuring to enhance service delivery owing to a mixture of techniques and strategies found in the private sector which can be found in e-government to improve public service delivery. In view of this, there is commonality between this theory and e-government on how to deliver public goods efficiently and equitably.

2.2.2 Cohesive Service Delivery Theory

The efficacy of the public service is critical to the development of a country and that is why governments have undertaken reforms in transforming service delivery in the public services to provide effective and efficient service.

E-government was adopted and implemented by various governments across the world to increase efficiency and improve internal government operations for better service delivery. There are many factors that affect service delivery so as to provide service delivery. One major theory that looks at the role of the combination of such factors is the Cohesive Service Delivery Theory (CSDT) proposed by (Mbecke, 2014).

The CSDT is an information, communication and technologies (ICTs)-based theory that looks at a variety of situations which if combined can result into an achievement. The theory suggests that a combined net effect of e-government, government resources and public participation can contribute to high success of service delivery. Mbecke gives 70% success rate. On the other hand, if there is no correlation among the said three

factors the service delivery will be poor, that is, below 20% achievement (Mbecke, 2014).

CSDT therefore facilitates the understanding of the predicament facing service delivery and makes possible solutions thereof. Firstly, it postulates the importance of understanding that the service delivery system. Secondly, the theory analyzes who are the beneficiaries of goods and services from their government. Various factors are therefore analyzed and gaps in their links and interdependences considered. Thirdly, the solution is people-centered as the theory promotes public participation. Finally, CSDT assists in better understanding of the factors contributing to service delivery and also facilitates policy process about interventions for service delivery (Mbecke, 2014).

The Kenya government introduced e-government to re-engineer the public service to bring about greater efficiency, improved public services and enhanced engagements with citizens of a nation (Republic of Kenya, 2004). CSDT being information, communication and technologies (ICTs)-based, this theory will underpin this study by facilitating the understanding of how ICT improves service delivery system.

According to this theory, if there are no adequate government resources, lack of participation and lack of e-government systems, there is likelihood of poor service delivery. In this regard, the Kenya government has embraced e-government and has shown serious resolve to transform the public service by introducing one stop shop to deliver effective services. It is expected that the integrated service delivery centres will enhance interaction with customers and the public. By virtue of implementing e-government and introducing interactive online platforms at huduma centres, the government of Kenya has shown commitment in the investment.

Thus, as per the theory, it is expected that the said factors which the government of Kenya has invested in will produce the desired effects in service delivery. It is in view of this that this theory was adopted to underpin the study. Thus, the CSDT was appropriate

and applicable to underpin the study in order to comprehend the combination of factors as postulated in the theory and in so doing analyze the interplay of the different aspects.

2.2.3 Systems theory

A system can be described as an interdependent collection of components working as a unit. A system is characterized by interdependent elements working together to achieve a goal. The interdependence of the elements creates an entity which is more than just the sum of its parts (Senge, 2006).

There are different types of systems and may be open or closed. In this study the open systems theory was employed. This theory relates to the relationships between the system and its environment for the reason that organizations do not exist in a void but are influenced by their external environment. This is because systems constantly interrelate with their environment or surroundings (Wehrich, 2008; Scott & Davis 2007).

Organizations are dynamic systems of adaptation and evolution that contain multiple parts, which interact with one another and the environment. The ability of organizations to change rapidly in response to relationships is at the heart of an adaptive organization. Since organizations are complex systems, an implication is that the organization is able to learn from its environment and change its internal structure and its functioning over time, thus changing the behavior of individual elements. If on the other hand organizations do not respond to these fast and speedy changes, they are at risk of major turbulence and organizational instability (Mason, 2007; Sherif, 2006).

The concept of systems regards organizations as constantly interacting with their environment. Therefore, the organization and its external environment must be compatible. Government as an organization continuously interacts with its environment such as citizens and communities. Therefore, government can be regarded as an open

system. Open systems theory focuses on the interchange between a system and its environment (Mongkol, 2011).

Open systems perspective explains a few major components that comprise five basic elements, namely, environment, inputs, transformation, outputs, and feedback. First, an environment denotes all of the elements outside the system that can potentially affect all or some parts of the system. Second, inputs involve the inflows of information from the external environment to revitalize the system. The inputs may include people, materials or resources from other organizations (Scott, 2008).

Third, is transformation which is the process of transforming inputs into outputs (for example making a product). In other words, this is about converting or transforming resources within the system, and indicates that the system consists of interrelated subsystems. Reorganization may entail the processing of materials, generation of products or provision of services. Fourth, outputs may consist of materials, products or services. The product must be exported to the external environment Fifth, feedback signifies negative entropy. (Meyer 2010; Meyer & O'Brien-Pallas, 2010).

One of the major change is the coming on of new electronic tools into the organization which are making the world become a small village smaller in terms of space and time, and the effects of change in one part of the world can be felt rapidly in the others. Like living systems, organizations including governments go through change and the resultant effect encouraged the governments to revise strategies, management, and operations to respond to increased citizen demands (Milakovich, 2012).

One major instrument for transformation of government operations was e-government. Consequently, therefore governments embraced e-government to transform and enhance citizen's needs and responsiveness. Its adoption allows governments to cut cost, automate processes, eliminate processes, develop new forms of delivery, reduce middle management and offer new services. Thus, because of this perceived resourcefulness it

has become household name far and wide in countries such as Ghana, Senegal, Brazil, India, Chile, Argentina, the Philippines, and Malaysia (UN, 2014).

A major organization like government is an open system and given that the emergent technology has produced tremendous changes in the governance systems government have no options other than to respond to the wide-ranging change or else compromise the delivery of services to the desired expectations. And so governments have to act in response to the public service delivery requirements occasioned by external changes and resultant demands. For this reason, governments behave like living systems and operate in constant interchange with their environment. Objects similar to technology, social and economic phenomena are not stock-still but are always dynamic, hence organizations are demanded to adopt in order to survive (Meyer & O'Brien Pallas, 2010).

Organizations are considered viable systems if they are able to adapt, a key postulate of the systems theory. Adaptation is a dynamic process in which a given system responds to the demands and pressures of external forces and conditions including the way in which a system bring in resources from its outside environment. Adaptation involves reciprocal interactions and exchanges between the system and its environment, which ultimately results in both being changed. When a system determines and prioritizes its goals and then obtains and mobilizes resources in directed action to achieve those goals, it demonstrates the function of goal attainment (Barile & Polese, 2010).

In relation to the study, the theory posits that systems exist in an environment. Thus the government, which is an open system, operates in a dynamic environment. This in essence means that as per one of the postulates of the theory, it has to adapt to the changes in the operating environment. Therefore, government are obligated to adopt the latest technology for example e-government which has been adopted by many countries in the world to improve public service delivery.

2.2.4 Full Range Leadership Theory

The Full Range Theory was propositioned by Burns and transformed it to include a constellation of leadership styles or behaviors, ranging transformational behaviors to passive/avoidant leadership (Avolio & Bass, 2004). The theory comprises three leadership styles, which are: transformational leadership, transactional leadership, and passive/avoidant leadership (Avolio, 2007).

Transformational leadership is about interaction with followers to promote belief, motivate, and effect enhanced performance. Further, it is a radical stance of improved quality, employee satisfaction, increased productivity, and better perceived leadership efficacy to create positive impact and performance within organization (Kreitner & Kinicke, 2010).

Transactional leadership relate to interchange between leader and followers, for example giving material or psychological reward for followers' in conformity with the leader's wishes for the benefit of organizational commitment, managerial satisfaction, and effectiveness. While the passive-avoidant (*laissez-faire*) leadership represents the absence of leadership and seen as a prescription for mediocrity (Judge & Piccolo, 2004; Sheriff, 2006).

The dimensions of transformational leadership are characterized by a high leadership efficacy and intensive activity of the leader (Judge & Piccolo, 2004). The five factors of transformational leadership are discussed in this section. Idealized influence: This behaviour constitutes the charismatic factor of transformational leadership in which leaders turn out to be role models for ethical behaviour by their employees. As a result of the leaders' behaviours, employees are expected to have faith and trust in them (Mullins, 2010).

Intellectual stimulation occurs when a leader encourages taking risks and discovering new solutions. A leader of this kind is one who cares and empowers individuals to

maximize their potential. Here, the leader serves as coach and mentors followers (Bhat, Rangnekar, & Barua, 2013).

Inspirational motivation describes the leader who motivates, inspires, and instills confidence to followers by sharing information and communicating the expectations. They provide support and encouragement as well as listen to the followers' concerns and needs (Yukl, 2010).

Transactional Leadership is about stability and order. The leader clarifies what is to be achieved and clarifies success will lead to rewards, while non-compliance will imply punishments (Bass et al., 2003).

Transactional leadership, the four major characteristics which constitute this type of leadership include contingent reward, management by exception, and laissez-faire management. Contingent reward is described as a constructive interaction that is when leaders agree with followers and speak about performance in exchange for rewards (Yukl, 2010).

Management by exception is regarded as a corrective leadership because it involves the degree to which a leader intervenes on the basis of followers' behaviours. This may include discipline, negative feedback or disapproval. Active management by exception is ensuring compliance with rules and procedures and intervening before problems arise. Passive management by exception involves leader's intervention after problems have occurred; thus, reactionary leadership (Yukl, 2010).

The laissez-faire leader avoids making supervisory responsibility as well as decision making. Given these negative characteristics this leadership style has been described as an absent leadership. Leaders in this category abdicate their role and give space to others to fill the vacuum that ultimately creates alternative centres of power (van Eeden, Cilliers, & van Deventer, 2008).

The theory was applied in the study because of the supposition that the kind of leadership style adopted has an effect on organizational outcomes. Therefore, this study assessed the moderating role of leadership styles on the relationship between e-government and service delivery in the public service of Kenya. Thus, leadership style was used as a moderator variable in this study.

2.3 Conceptual Framework

A conceptual framework is a concise explanation of the phenomenon under study with a graphic or visual depiction of the major variables in the inquiry (Mugenda, 2012). It is a logical structure of how ideas in a study relate to one another and the researcher's explanation of how the research problem would be explored.

The Kenyan government aims at transforming the public service delivery through the Huduma Centres, a one stop shop service that provides various government services under one roof with resultant expected benefits of speed, convenience, easy access to information, better records, and user friendly services (Oyugi, 2015).

E-government constructs or sub variables that constitute integrated service approach, online service, interactive participation, and automation of records, were treated as independent variables and service delivery as the dependent variable. Leadership was explored to determine its moderating role on the effects of e-government on the service delivery in the public service. The presumed relationships between the variables under investigation is illustrated in the following hypothetical conceptual framework as Figure 2.1.

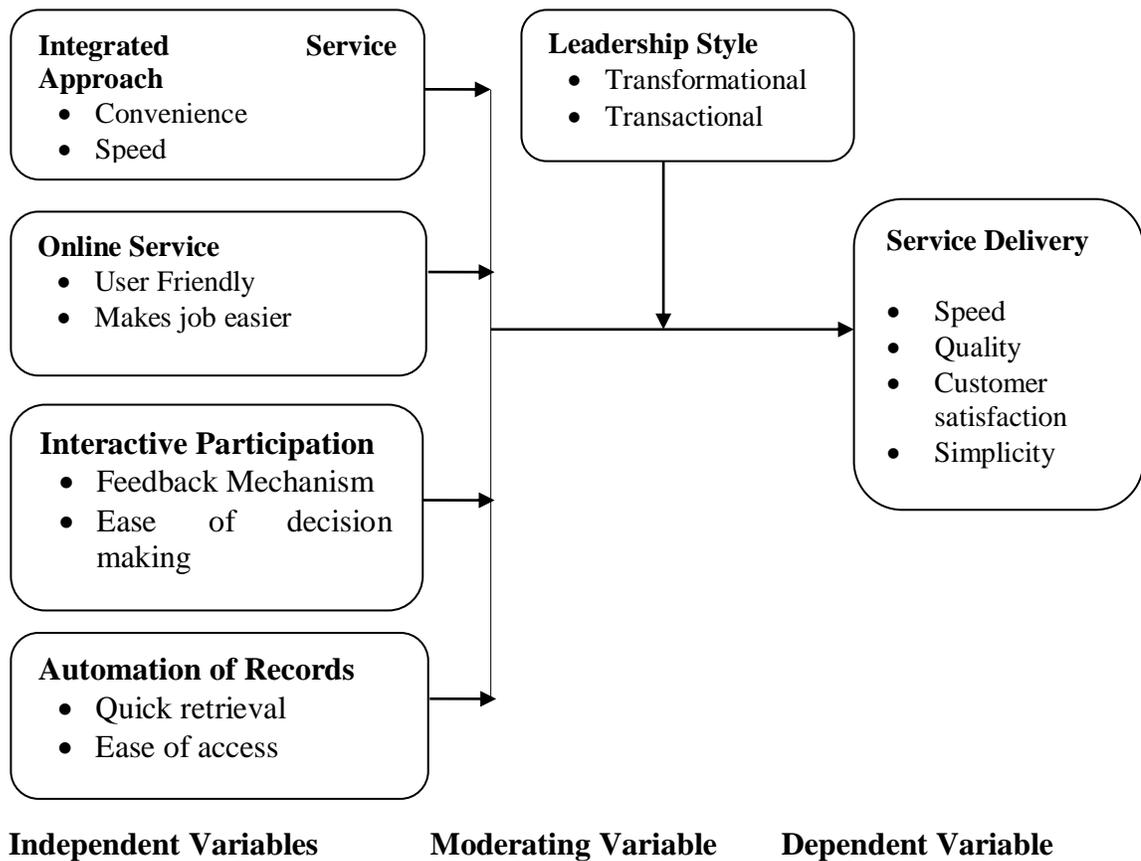


Figure 2.1: Conceptual Framework

2.3.1 Integrated Service Approach

The public service of Kenya has not been serving within its most optimal capability (Hope, 2012) and is still bedeviled by the silo mentality where each public agency feels obliged to protect its territory. These kind of turf wars by various agencies hamper information sharing, stall communication, innovation, and the ability to remain relevant. They create rigidity, competition and rivalry thereby impacting adversely on service delivery by making provision of services cumbersome and frustrating (Kumar *et al*, 2007).

Further, the stated fragmentation of public service delivery leads to an increased administrative burden and decrease in efficiency (Yang & Maxwell, 2011). In addition, the silo mentality destroys trusts, cuts off communications and fosters complacency leading to the perception that the public service is lethargic, inefficient, bureaucratic, change-resistant, incompetent, indifferent and corrupt (Weerakkody & Dhillon, 2008).

Many citizens have complained of not knowing where to turn to get what they need, being confronted with lots of inexplicable procedures without assistance, unable to find the right points of service. Citizens face a maze of service agencies that are sluggish, time-consuming, encounter multiple service providers, excessive paperwork or geographically dispersed offices difficulty in accessing information and general inefficiency of operations. In addition, services are mired in unethical tendencies such as corruption, bribery and unfriendly employees (Mutula, 2008).

In response Kenya introduced and implemented the Huduma Kenya Programme, a one-stop shop platform for delivering e-government. The one-stop-shop concept is based on the provision of public services in one place with an of assemblage government's agencies under one roof to provide better services with simplicity and promptness. Huduma Centres are Integrated Service Delivery (ISD) or One Stop Shop that emphasize service excellence in the delivery of a wide ranging of services to the public from a single point (Mutuku, 2015).

According to Contiades, one stop shop is a location where many different transactional services, which satisfy the needs of many different categories of citizens are located in a single office' and guided by the principles of convenience, efficiency, simplicity, speed and transparency (Contiades, 2007). Under the program there are more than 35 services under single roof providing high impact services to the public thereby save time, costs and improve service delivery for both citizens and business (Rotich, 2015).

Services at the centre range from National Hospital Insurance Fund Registration and Claims, Issuance of Police Abstracts, Student Loan Application and Repayment amongst others with the most sort after services being Replacement of Duplicate Identity Cards, Payment of land rates and rent as well as Search and Registration of Business Name (Ministry of Devolution & Planning Newsletter, 2014).

The integration of services at the centres is an attempt to break from the silo mentality to enhance cooperation, communication and collaboration among the diverse entities to create efficiency. Service provision is likely to fail if the information systems across public agencies are not integrated. This is what Huduma Kenya programme aims to address by at providing a single window access to transactional government services using a variety of channels through One Stop Shop known as Huduma Service Centres

The single door approach encourages easy accessibility to numerous information and public services through integrated service platforms and from a single location. Technology helps in cost reduction as well as lead to improvement in service delivery in terms of quality and speed. Improved service delivery enhances customer satisfaction, higher productivity and improved financial performance. Thus e-government by clustering 30-66 different service points under one roof, the Huduma Centres effectively help provide connected government services by placing linked services within close proximity.

At Huduma Centres all related services are provided under one roof. This makes it possible to conveniently acquire all services without the need to move from one point to another. Without a one-stop shop, every government department is likely to have its own citizen interfaces, forcing individuals to visit diverse offices encountering inconveniences and difficulties. In a one-stop shop, the interface is integrated and this reduces confusion and duplication. The exchange of information and seamless services is enhanced between government agencies with an accompanying reduction of transaction costs, time, space and manpower. In other words, a one-stop shop amalgamates government services and delivers as one.

2.3.2 Online Service

With the advent of the rapid technological and subsequent citizens' expectations and demands, governments have come under increasing pressure to deliver quality services and improve efficiency. As a result, many countries have come to realize e-government as a tool with potential to deliver efficient and effective services and ability to enhance accessibility, transparency, effectiveness and accountability in government (Atkinson & Castro, 2008).

Governments are faced with increased demand to change from the traditional method of service delivery to a citizen friendly service to enhance citizens' convenience while seeking services. Generally, a customer seeking government service is frustrated by going to many offices and these movements that are often complicated by numerous inquiries leading increased inconvenience and dissatisfaction in the affected organizations (Yang & Maxwell, 2011).

Traditionally, the delivery of service in the public service is mainly paper-based full of bureaucratic procedures giving rise to multi-dimensional obstacles to access public services. Further, the services are associated with delay and uncertainty, lack transparency, involvement of intermediaries, neglect by the officials and rigid procedures (Bhuiyan, 2011).

As a result, governments have been viewed as cumbersome, bureaucratic and unrelated forcing citizens to visits different desks, submit applications, fill multiple and complicated forms coupled with unresponsive staff. To address these concerns and respond to the demands for enhanced performance, governments are taking pro-active approach and are shifting from the traditional bureaucratic concept to embrace e-government to respond to the resultant demands and further make available wide-ranging online services to the citizens (Pavel, 2013).

Thus governments introduced online service delivery to be provided through electronic medium like mobile, kiosk and other online platforms (Contiades, 2007). The objectives of the implementation of e-services are; to enhance service access through multiple electronic delivery channels, to provide internet services where multiple services can be obtained at each delivery channel and to improve service quality in terms of speed, reliability, transparency and security. The online service is critical in transactions such as renewing licenses, certifications, paying taxes and applying for benefits, less time consuming and easier to carry out. Thus, the interactions will allow citizens to be more informed about government services and usher in a new thinking and promise of reforming the public service from being inward looking and administration-focused to an outward looking with a focus on service delivery (Connolly & Bannister, 2008).

Online service delivery offers huge opportunities to enhance service access through multiple electronic delivery channels that are accessible to the public and one stop service windows where several services can be obtained for the benefit of citizens that is to be more convenient and more responsive and in many cases replacing traditional channels for doing business with more efficiency and effectiveness. Similarly, the old relationship characterized by rigidity, long delays, unnecessary complexity and sufferings is being replaced by a new relationship epitomized by speed, enhanced accessibility, reduced cost and convenience under one roof (Weerakkody & Dhillon, 2008).

Like others and in line with the changes taking place in the public service globally Kenya government established a one stop shop or Huduma Centres to provide integrated services under one roof. In the centres, citizens can obtain government services, such as Passports, IDs, driver licenses, car registration, application for university loans, payment of bills, birth and death certificates, registration of a new company, filing tax returns etc. The centres are viewed as an effective mechanism to meet the citizen demand because of its potential to create citizen participation, create hassle-free businesses, offer faster and enhanced communication, improved ambience, efficiency, simplified procedures,

accessibility and organizational management in terms of delivering services to citizens (Ahmad et al., 2013).

The online service can facilitate the citizen to pursue the status of the service request and get all the information required. In addition, the online service can open up new opportunities and reduce the number of paper transactions involved in government operations, improve public participation, promote electronic payments and hygiene in service delivery. Further, it has the potential to cut the distance between the government and the citizens and enhance trust, increase productivity and deliver better quality services. Thus, the online services have the ability to make a fundamental difference in making the public to access the government and lead to dramatic improvements in service delivery systems by obtaining convenience, speed, choice, accessibility and responsiveness at points of service (Khalid, 2004)

Online service also allows the citizen and businesses to perform the transactions in a secured and enhanced ambience thereby increasing the quality of service provided by the government departments. This not improves service delivery but also changes the employees' attitudes. This organizational culture helps motivate staff which is an important step towards enhancing both internal operations and external interface of the government (Leitner, 2003).

The online services promote more customer-oriented services that induce more benefits and satisfaction. This interactive services not only minimizes time, costs, corruption and omits middle man culture and ultimately makes people happy but also means that citizens can be more fully involved in all aspects of government thus reinforcing the creation of a culture of trust and mutual interest (Naz et al., 2006).

Thus, the introduction of online services in the provision of government services is a major strategic effort to bring about citizen-focused services that will not only facilitate service delivery but also eliminate opportunities for corruption and intermediating services. In consideration of the above, online service has the potential to enhance

delivery of service to obtain resilience, increased satisfaction, support and organizational accomplishment (Field et al., 2004).

2.3.3 Interactive Participation

Public participation is the interaction of citizens and administrators concerned with public policy decisions and public services. It is a mechanism for entrenching democracy and is critical for the linkage between government and the citizens particularly in the provision of services (Heeks, 2011).

Promoting participation is the basis of inclusive governance and democracy. It is meant to improve access to information, promote accountability, transparency and consensus oriented governance to enable a broader influence on policy outcomes and thereby increase transparency and accountability, and keep the government closer to the consent of the governed (Leighninger & Bradley, 2006).

By participation, citizens support ownership of decisions undertaken and therefore become willing partners and a factor in the services hence better results and close relationships developed. Thus, this relationship and interaction promotes understanding which in turn improves service delivery by enhancing efficiency, accountability and reduction of corruption, equity, and quality of service and cost recovery. This participation will freely provide opportunity for exchange of ideas and solutions therefore hence promote the success of service delivery. It will also enhance better working relationship with the public. From this perspective, the public can become partners and become directly involved in the design and delivery of services (Weerakkody & Dhillon, 2008).

With the advent of e- government, citizens can apply online services to interact with government, improve information sharing and communication with citizens and also enhance responsiveness to promote transparency and interactivity. Electronic government through interactive participation provides citizens with quicker and easier

access to information and services and permits broad grass-roots engagement and promote better understanding of the can citizens regarding public priorities and reduce wasteful projects, which in turn leads to better efficiency. In situations where people have been involved in public service delivery, there has been greater trust, ownership and sustainability. (Neshkova & Guo, 2011).

Failure to provide instant and accurate government information and ignoring or declining to recognize the importance of providing accurate information leads to cynicism and mistrust. Engagement with the customers in a positive manner has the potential to grow important and critical innovations which lead to better decision making and hence effective service delivery (Sherif, 2006).

Previously citizens were perceived as insignificant and submissive beneficiaries of government services and solutions but this is no more since there is a change in how services are being formulated, generated and conveyed. This underscores the thinking that e-government depends on citizens by using its applications and services and in so doing gain trust for its successful implementation. It is due to this that e-government has become an important function of any government by offering faster, easier access of information, and other services resourcefully to the advantage of the citizens (Lee, Kim, & Ahn, 2011).

In the public service, citizen is the customer that utilizes the service provided by the government agency as the service provider. The centrality of the citizen is the key concept in the provision of e-government which has the potential to create seamless, responsive and citizen-centric government for the benefit of all. This kind of participatory system creates mutual trust between citizen an accountability and in service delivery especially in the citizen centric services. The integrated online services strengthen citizen participation since they can access government services with pleasure and speak about their wishes more easily to the public officials. (Ndou, 2004).

Thus, the success and acceptance of e-government initiatives depends on citizen willing to utilize the service provided. To achieve the success of e-government, it is critical to influence willingness of the citizen to use electronic services because the success of e-government initiatives is determined by citizens' willingness to use these services (Heeks, 2011).

2.3.4 Automation of Records

Automation is the efficient and systematic control of the creation, receipt, maintenance, use and disposition of records, including the processes for capturing and maintaining evidence of and information about organizations activities and transactions by use of ICT (Sherif, 2006). Governments are fundamentally socio-technical information processing systems, with information storage and communication. It is an enormous multifaceted bureaucratic information silo with malformed record systems. That is why the main task of information processing is an important motivation for automation to create efficiency, effectiveness, transparency, accountability and less corruption. (Dunleavy et al., 2006)

In many cases, government agencies have been accused of poor records and cover ups. The manual records system hinders effective services leading to misplacement or loss of files and with limited staff. The registries are often disorganized, clogged and stuffy. E-government has the potential to eliminate such challenges, improve service delivery and enhance transparency accountability, cost effectiveness, better record management; and reduce in corruption. It can also help in record-keeping practices through tracking of records. (Coleman, 2010).

With e-government it is hoped that there will be less paperwork or cases of unauthorized access to records will be resolved. Files will be retrieved promptly electronically and because of availability of electronic codes, it will be easy to track and access documents. This system safeguards environment and fortifies the security of the documents to improve service delivery, transparency and effectiveness (Dhamuniya, 2013).

In view of the above coupled with rapid technological advancements. Governments have been prompted to adopt electronic information management to capture, manage, secure and preserve them because citizens are entitled to easy access to information and services thereof. Automation is a modernization process aimed at improving communication within government agencies, save money, boost productivity, enhance documentation and information sharing, secure information and conserve the environment. Further, it improves office efficiency and effectiveness by removing physical contacts inherent in the paper-based office environment (Weerakkody & Dhillon, 2008).

Further, automation promotes effective collaboration, breaks silos and curtails competition within agencies. In addition, it facilitates better coordination and improves networks between agencies and others. Thus, this kind of improved relationship would not only enable better connectivity and understanding but also build up information quality, reliability, totality and relevance (Gelders, 2005).

Since the introduction of e-government in 2001, Kenyan government has been optimistic with its range of e-government initiatives. These programs aim to maintain steady flow of information from government to citizen as well as from citizen to government. Huduma centres which operate as one stop shop services facilitate seamless and efficient services across many counters in an environment of more customer-oriented and business friendly. Huduma program is a promise to transform services more effectively and efficiently to increase the efficiency of internal processes (Mutuku, 2015).

In the centres have computer generated information which can easily be shared across agencies and departments in an electronic form which makes it easier to analyze, easier to copy or transmit, and easier to display. It can contribute in reduction of costs especially in processing time and promote easy flow of electronic documents across workspaces. Thus, with automation and provision of electronic services, time can be saved; procedures simplified, enhanced record management, reducing the probability of human error, corruption, bribes and better transparency (Monga, 2008).

In this regard, e-government is about automation that promises to provide diverse advantages by easing access to public sector information and making interaction with government and other institutions more convenient by way of online transactions. A crucial aspect is that it involves improving internal operational efficiency of the public service and modernization of the relationship with citizens and other stakeholders with the goal of creating a paperless office, transparency and accountability, reducing costs and improving productivity and performance leading to better governance. This means that the information and services are reliable, relevant, credible, helpful, usable and of high standards (Hodos, 2014).

The archaic functioning of government offices has led to a citizen unfriendly service delivery characterized with numerous organizational misbehaviours, poor customer experiences, unethical tendencies, wastage of papers due to errors during data processing, manipulation of data, waste of time, improper storage and retrieving of information. These challenges have serious effects on service delivery on citizens' perception, confidence and trust (Ngoepe & keakopa, 2011).

With the introduction of e-government the interaction between the citizens and their government will enable access to information, strengthen participation, increase efficiency in collecting, classifying documenting and storing data. Hence, achieve effective service delivery and improve information stream to produce efficiency, effectiveness, and transparency (Snellen, 2005).

2.3.5 Service Delivery

Service delivery is provision of goods and services to public to the expected desires (Mbecke, 2014). It is also the means in which the public demands are met through provision of prompt and efficient services (Oronsaye, 2010). This is for the reason that services are expected to be in a friendly atmosphere devoid of obstructions, hindrances or interruptions and instead the services be undertaken through consultation, openness, information sharing, transparency, participation, accessibility, accountability,

availability, timeliness and convenience (OECD, 2013). However, the public service in Kenya, like many other countries in the world, is underperforming and is affected by lack of accountability, transparency, commitment, trust and a development of a sense of despair among the general public. The performance has been below the optimal level (Hope, 2012)

In response to provide better services, Kenya introduced e-government as a strategy to improve service delivery, enhance communication and information within government, within the citizenry and business community (GOK, 2006) and established the Huduma Kenya Programme as a flagship project to transform the public service through an Integrated Service Delivery (ISD) known as Huduma Centres to provide access to various services. The initiated program focusses on the delivery of services in a one stop shop model to deliver a wide range of services to the public from a single point (Mutuku, 2015).

This seamless initiative provides multiple-channel, single-window access to between 30 to 66 different government services at one-stop shop service operations based on customer registration upon arrival meant to check long queues, corruption, inconvenience, efficiency and reduce cost. In addition, Huduma Centres are expected to break the silo operations to enhance access to information and motivate employees by enabling them carry out their duties in a more effective and efficient way due to the help of the ICT applications. Employees can easily exchange and share information and the managers can the chance to monitor the work flow. And in so doing create a more productive and efficient work environment (Letch & Carroll, 2008).

Service delivery is the dependent variable in this study and the e-government constructs of integrated approach, online service, interactive participation and automation of records are studied to explore their effect on service delivery in order to provide timely efficient and effective services. This is supported by NPM and systems theories. The former advocates for customer services, professionalism and values of the private sector that can be borrowed by the public service. The latter is about adaptation due the

emergence of e-government as a radical tool for public service transformation. Government as an open system has no option but to adapt to the changes to remain relevant. E-government will promote an environment that courteous, friendly, receptive and helpful relationship with the public. Enhance transparency, honesty and efficiency.

2.3.6 Leadership Style

Leadership can fundamentally change how government functions and steers a shift from the old processes of manual operations to new automated services. Leaders have the potential to influence their followers to display or produce high level of innovation and resourcefulness (Shin & Zhou, 2003).

Leadership style is a key factor in enhancing or retarding the interest and commitment of employees in the organization. Thus, the leadership styles contribute significantly to the success and failure of an organization (Lok Crawford, 2014). Identifying leader's style is central to evaluating leadership quality and effectiveness with regard to organizational goals. This study therefore assessed the moderating role of leadership styles on the effects of e-government on the service delivery in the public.

2.4 Empirical Review

A number of research that have been undertaken show e-government as a tool for improving service delivery in the public service. The results indicate that e-government has a significant effect on enhancing transparency and efficiency at all levels of government, in addition to making government more accountable to its citizens (Mbecke, 2014).

According to Heeks (2011). E-government has the ability to curtail physical contacts between citizens and public officials in administrative processes, which give rise to unethical tendencies such as bribery and corruption. Accordingly, the growth of e-government has been seen to be effective in reducing organizational corruption by improving internal operations of the public service and public relations (Mbecke, 2014).

Other scholars observed that e-government improves communication and interactions between government and its citizens. They also stated that e-government reforms the public sector, reduces bureaucracy, reduces service costs, improves services delivery, empowers citizens, increases accuracy and privacy of information, increases accountability, enhances transparency and adds value to stakeholders (Ke & Wei, 2012).

In Norway, Heeks (2011), shows that there are several competitive advantages associated with the adoption of technology in service organizations, including the creation of entry barriers, enhancement of productivity, and increased revenue generation from new services.

Ke and Wei (2012) in a study using a sample of 400 citizens each from Ethiopia, Fiji and Jordan found that electronic technology has the ability to streamline operations. The findings of this study imply that the more the progress is made towards attainment of e-government goals, the more are the positive effects on provision of services, ability to perform, enhanced transparency and accountability, convenience and improved communication.

Ke and Wei (2012), gives the Ugandan experience of e-government and posits that e-government can address empowerment, efficiency and effectiveness. In Tanzania, (Mbecke, 2014) argues that there is an urgent need to employ e-government in all public agencies to address the administrative ills emanating from the effects of principal-agent problem. The technology can also be employed to improve the deteriorating service quality in Tanzania.

Studies by Moon (2012) indicate that e-government is a new system that improves the relationship between citizens and government. This through a 'citizen-centered' approach by increasing the efficiency of information and service delivery by being independent from time and physical distance.

The above is supported by Mutula (2010) who states that e-government has brought about a revolution in the quality of service delivery by improving transparency in the administrative process, saving time, simplifying procedures, reducing corruption, improving office and record management, and improving attitudinal change of public officials.

In general, researchers acknowledged that the grounds for governments to embrace e-government included reduction in service delivery. The need to remove paper based processes and replaced with online application processes. The need to be customer oriented service delivery through the application of e-government as a reform tool ((Kim, 2009; Heeks, 2011).

Studies show that e-government is adopted to transform public service by simplifying government and enhancing transparency. In addition, to make possible for citizens and businesses to complete a transaction with government agencies without having to visit several separate ministries/departments in separate physical locations. In summation, e-government is an innovation for improving efficiency and for strengthening public relations (Heeks, 2011).

2.5 Critique of the Existing Literature

From the related contents analyzed there is evidence that e-government is a new paradigm shift in the delivery of service in the public service. There is consensus that e-governments is an innovation with a potential to provide public and businesses with convenient government services and access and improve public relations in addition to curbing corruption.

The covered studies ascertained facts, knowledge, trend, practices, elements in society and government. Some of the studies looked at the efficacy of e-government in practicing good governance, restoration of public trust by enhancing transparency, cost efficiency and policy participation. In general, it is acknowledged that e-government is a

multi-dimensional but a critical tool in the enhancement of social and economic development of various segments of the society.

From the analysis of the related work the potential of e-government is seemingly remarkable. The advantages associated with the adoption of e-government would result in increased efficiency, better services through reduction of cost and time in service delivery that will lead to public convenience and satisfaction. The benefits will also enhance public participation and thus improve policy making and decision making process. New ways of collaboration and partnership will develop between government and the public and therefore improve the image of the government in terms of good governance and democracy.

However, there is a considerable gap between what can be done and what has been achieved in reality. This is in consideration of the current technological advancement and to a certain extent the conflicting relations between e-government expectations and achieved results. This subject may continue to offer further motivating research questions.

The undertaken studies have focused on benchmarking, benefits, potentials, satisfaction trust and success factors as well as barriers and technology user behavior. The constructs of e-government especially in public service of Africa and its attendant effects on effective service delivery have not been extensively discussed in the literature. Again the role of leadership as a moderating effect has not been considered. Thus, there is scanty literature on the effects of individual constructs of e- government that is, integrated approach, online service, interactive approach and automation of records on service delivery. Also no study has come up with an empirical model relating the variables of e-government and service delivery.

Therefore, there is need to examine the implementation of e-government and its consequent effects by demonstrating the various variables relationships including the moderating effect of leadership with regard to service delivery. In this study, the values

and principles of public service of professional ethics, efficient, effective, economic use of resources, responsive, prompt, accountability, civic participation, transparency, and provision of timely accurate information entrenched in the constitution of Kenya 2010 are the established paradigms for e-government.

2.6 Research Gaps

From the empirical literature review acted upon, it is seen that e-government has the potential to improve service delivery and customer satisfaction. However, the analysis has helped to determine some research gaps which need to be explored. The main research gap is the discrepancy in the perception and expectation of citizens regarding service delivery, quality of services and this has adversely impinged on the customer satisfaction over a period of time. Hence, the need to investigate the extent to which e-government affects service delivery in the public service as an instrument of reform and transformation. Also, there is no documented study on the moderating role of leadership styles on the relationship between e-government and service delivery in the public service of Kenya, hence the need to fill this gap by undertaking the study on the effects of e-government on service delivery in the public service of Kenya.

2.7 Summary

This chapter has covered the introduction of the main variables of interest for this study that is, e-government, service delivery and leadership. Relevant theories of e-government were then reviewed so as to obtain the hypothesized relationship between the variables of interest as captured in the objectives. The conceptual framework that shows how the researcher conceptualizes the interrelationships between the study variables is then represented diagrammatically and the variables described. A critical empirical literature review was then done with the aim of identifying the gaps that this study aspired to fill.

CHAPTER THREE

RESEARCH METHODOLOGY

This chapter focuses on the methodology that was used in the study. It discusses the research design, population of the study, sampling, data collection, reliability and validity of data collection instruments, measurement of study variables and data analysis. The chapter finalizes by a summary of the study hypotheses and analytical models that were used to test the hypotheses.

3.1 Research Philosophy

The research was based upon the philosophical and methodological foundations of logical positivism. A logical positivist researcher deduces and formulates variables and hypotheses and operationalizes definitions based on existing theory. In other words, positivism is concerned with uncovering truths and facts conceived in terms of specified correlations and associations among variables. Contemporary social science and marketing research is dominated by logical positivism (Malhotra, 2007).

3.2 Research Design

Research design is the process that involves the overall assumptions of the research to the method of data collection and analysis. It specifies the details of the procedures necessary to obtain the information needed to solve the research problem. It has a great bearing on the reliability, minimize bias and maximizes the reliability of the data collected and analyzed. Thus, it is the broad-spectrum plan that indicate the strategies that the researcher uses to develop accurate, objective and interpretative information (Churchill et al., 2012).

The study adopted a cross-sectional survey design as a blue print to guide the research process. In cross-sectional survey, a researcher collects information from a sample drawn from a population and involves collecting data at one point in time or over a short

period of time to provide a 'snapshot' of the variables of interest at a specific. (Churchill et al., 2012). Cross-sectional studies investigate the relationships between variables and involves the selection of a relatively large sample of respondents from a pre-determined population (the target population) followed by the collection of data from the respondents. It can provide information about what is happening in a population to describe what happening at the present moment.

3.3 Target Population

As described by Cooper and Schindler (2013) a population is the total collection of elements about which the researcher wishes to make inferences. The population for the study was all employees in the public service in Kenya. The target population is that collection of elements or objects that possess the information sought by the researcher (Malhotra, 2007). In this study, the 5,756 employees of 51Huduma centers formed the target population for the study. The employees were considered appropriate because they constitute the critical and decisive human resources responsible for the various everyday operations in the centres. Most of them have served in the back office for long without the benefit of electronic services and now using e-government platforms at Huduma centres. Therefore, they were in the best position to provide requisite information for this study.

In addition, the Huduma Centres were chosen for this research because they form part of the Kenya government's major e-government's initiative to provide citizen-centered public service delivery with a variety of channels driven by digital technology to improve transparency, efficiency, and integrity. The centres provide integrated online services delivered under a single roof modeled along one stop shop in which a total of 66 services service delivery to end users (Mutuku, 2015).

3.4 Sampling Frame

Proctor (2005) describes a sampling frame as a list that identifies the target population. The frame is important so that each and every one in the population is marked with intention to have an equal opportunity for selection as a subject. The sample was drawn from the employees of the 51Huduma centers in Kenya as indicated in Appendix IV.

3.5 Sample Size and Sampling Technique

A sample is the fragment or section of the population that is selected for the research process (Bryman & Bell, 2007). The process of sampling involves using a small number of items or parts of the whole population to make conclusions regarding the whole population. It's most important purpose is representativeness, that is, the sample should be organized in such a way as to be expressive of the population from which it is taken (Field, 2009).

3.5.1 Sample Size

A sample is defined as a subset of all the members of a population (McDaniel & Gates, 2005). The sample size of this study was based on Krejcie et al. (1998) statistical table for determining sample size from a population as captured in Appendix II. The table returned a sample size of 361. Generally, larger samples result in more precise statistical findings (Terre Blanche et al., 2006). The sample size was then proportionately distributed as determined as illustrated in Appendix IV.

3.5.2 Sampling Technique

This is the definite plan that was used to obtain a sample from the target population. It is the procedure the researcher adopted in selecting items for the sample (Hair et al., 2010). Stratified random sampling technique was used to obtain a true representation of the population that is heterogeneous from the Huduma Centres. This technique often improves the representativeness of the sample by reducing sampling error (Tabachnick

& Fidel, 2010). After using the stratified random sampling, simple random sampling was used to obtain the respondents from each stratum. Simple random sampling is a probability sampling techniques that gives each element an equal chance of being selected and this reduces biasness and thus validity of the results and conclusions of the study is enhanced.

3.6 Data Collection Instruments

For purposes of this study, primary and secondary data were utilized. Primary data was collected using a questionnaire, which is defined as a formalized framework consisting of a set of questions and scales designed to generate the primary raw data necessary to accomplish the objectives of the research (McDaniel & Gates, 2005).

The questionnaire (Appendix I) had four sections. Section A captured the background information of the respondents. Section B had question items on e-government, section C was on service delivery while section D had leadership style items. Items in sections A, B, and C were self-constructed by the researcher while a standard questionnaire called Multifactor Leadership Questionnaire (MLQ) was used for section D.

The Multifactor Leadership Questionnaire (MLQ) developed by Bass AND Avolio (1997) was used to identify and measure the key aspects of the leadership styles (Transformational: Items for the five sub-variables of transformational leadership style and Transactional: Items for the three sub-variables). The respondent was required to judge how their managers frequently exhibited the behaviors described in the statements.

The questionnaire was designed based on a 7-point likert-type scale which is an ordered scale from which respondents choose one option that best aligns with their view. The scale is preferred since according to Churchill et al. (2012) there is evidence that the more scale points used, the more reliable is the scale.

The questions were constructed to generate data in answer to specific target research objective and help to test the hypotheses of the study. Closed-ended questions were used to save time and to motivate the respondent to respond. Likert's are quick, efficient and inexpensive methods for data collection where the responses are easily quantifiable and subjective to computation of some mathematical analysis.

The number of employees and operational Huduma Centres as well as the related relevant literature was obtained from records obtained from Huduma Centre secretariat. The sources, number of question items and the constructs of each variable are summarized in Table 3.1.

Table 3.1: Summary of Measures of Variables Used

Section	Variable	Sub-Variables	Items	Source
A	Background Information	Demographics	4	Self constructed
B	e-government	Integrative Approach	9	Self constructed
		Online Service	10	Self constructed
		Automaton of records	9	Self constructed
		Interactive Participation	10	Self constructed
C	Service Delivery		12	Self constructed
D	Leadership Style	Transformational Leadership	12	MLQ-5X Short Bass and Avolio (1997)
		Transactional Leadership	6	MLQ-5X Short Bass and Avolio (1997)

3.7 Data Collection Procedure

A total of 361 copies of the questionnaire were administered to the participants. The questionnaire was administered by ten research assistants. The research assistants were selected based on their qualifications and availability during the period. Those with bachelor's degree in social science field were selected, and were further trained on effective data collection techniques. A drop-and-pick-later method of data collection was used. This method of data collection helped the researcher to overcome issues of time.

Secondary data on the number of employees and operation at Huduma Centres as well as the related relevant literature was obtained from records obtained from Huduma Centre secretariat. Additional secondary data was gathered through a review of literature on e-government initiatives. Further, relevant textbooks, journals, and materials from the Internet were also used to acquire knowledge on the present developments and views on e-government activities

3.8 Pilot Test

A pilot study is one of the important stages in a research project and is conducted to identify potential problem areas and deficiencies in the research instruments before the full study. Assessment of the research instrument is very essential. The objective of this assessment was to establish the accuracy of the relationship between the measure and the underlying traits the instrument is trying to measure. It is very essential that a research instrument be valid and reliable.

Thus, a pilot test was carried out before the main study, this allowed the researcher to identify whether respondents understood the questions and instructions. The pilot study used 10% (36) of the sample size from Eldoret Huduma Centre. However, the researcher excluded the participants of the pilot study from the main study. As recommended by Malhotra (2007), the questionnaire pre-tests were done by personal interviews in order to observe the respondents' reactions and attitudes. All aspects of the questionnaire were

pre-tested including question content, wording, sequence, form and layout, question difficulty and instructions. The feedback obtained was used to revise the questionnaire before administering it to the study respondents.

3.8.1 Validity of the Research Instrument

Validity is the accuracy of a measure or the extent to which the truth or falsity of the data obtained through using the research instrument (Zikmund & Babin, 2010). In order to ensure content validity, the preliminary questionnaire was pre-tested on a pilot set of respondents for comprehension, logic and relevance. Respondents in the pre-test were drawn from Eldoret Huduma Centre which was similar to those in the actual survey in terms of background characteristics, familiarity with the topic of research and attitudes and behaviours of interest. The pre-tested Huduma center was not part of the target population of study for purposes of avoiding assessment biases. For construct validity factor analysis of the constructs was carried out and this helped in the identification of usable items for each study construct.

3.8.2 Reliability of the Research Instrument

Reliability of a research instrument refers to the consistency of a measure that is the degree to which an instrument would yield the same results or data after repeated trials (Mugenda, 2011). Pilot testing was used to confirm the reliability of the research instruments. The most common method of testing the internal consistency of a scale for reliability is the Cronbach's alpha coefficient (Malhotra, 2007). Cronbach's alpha coefficients exceeding the 0.7 is acceptable in social research (Bagozzi & Yi, 1988; Sekaran, 1992).

3.9 Data Analysis and presentation

The questionnaires returned from the field were coded, edited and keyed into the computer to facilitate statistical analysis. Statistical package for social sciences (SPSS) version 20 was used to assist in the analysis. Using a likert-scale, quantitative data was obtained from the research tool employed. Analyzed data was interpreted and presented in tables for ease of analysis.

Data analysis is a process of examining, categorizing and reorganizing the collected data to find a solution to the research. It involves reducing accumulated data to a manageable size, developing summaries, looking for patterns, and applying statistical techniques (Cooper & Schindler, 2014).

To establish the main characteristics of the study variables, descriptive statistics was employed. The main purpose of conducting descriptive statistics was to reduce, summarize data and describe items and constructs. The distribution shape of the variables using skewness and kurtosis was also undertaken in order to find out the deviation from the normality. Thereafter, the data was summarized visually using frequency distributions, percentages, and tables (Haier et al., 2011).

Regression analysis was used to find the relationship between the variables. Regression analysis is called simple regression when there is only one independent variable and is called multiple regression when there are more than one independent variables (Malhotra, 2007). To establish the statistical significance of the respective hypotheses, analysis of variance (ANOVA) or F-tests as well as multiple linear regression analysis was conducted as appropriate at 95 percent confidence level ($\alpha = 0.05$) (Terre et al., 2006).

For the purpose of this study, multiple regression analysis was undertaken since there are more than one independent variables. In this case the assumptions of the sample size, the issue of multi-collinearity and outliers was strictly considered and adhered to.

Collinearity means that two or more of the independent/explanatory variables in a regression have a linear relationship which causes a problem in the interpretation of the regression results. If the variables have a close linear relationship, then the estimated regression coefficients and t-statistics may not properly isolate the unique effect/role of each variable and the confidence with which the effects can be true (Field, 2005).

Hair et al. (2010) provided two methods of identifying multi-collinearity in the variables. First, is to conduct an examination of the correlation matrix of the independent variables where the presence of high correlations in the region of $r=0.9$ and above will be an indication of substantial collinearity. Secondly, multi-collinearity could be identified using Variance Inflation Factors (VIF) in which a threshold of Variance inflation factor of 10 is suggested (Hair et al., 2010).

Factor analysis (a data reduction tool) using principal component method with varimax rotation was adopted to determine the construct validity of the items in the questionnaire. Factor analysis is crucial because it is used to summarize data to be manageable without losing any important information thereby making it easier to test theories (Field, 2009). Hence, it helps to isolate constructs and concepts.

The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy, using approximate Chi-Square and Bartlett's test of sphericity was conducted in accordance to Field's (2005) recommendations with the threshold of 0.5. Pearson correlations analysis was done to determine the strength and direction of the relationships of the variables of interest.

To establish the statistical significance of the respective hypotheses, analysis of variance (ANOVA) or F-tests was conducted as appropriate at 95 percent confidence level ($\alpha = 0.05$) (Terre Blanche et al., 2006). The first stage was to find the relationship between the constructs of e-government and service delivery using a multiple regression model 1 (direct effect model) as captured by hypotheses H_{01} , H_{02} and H_{03} and H_{04} . The table 3.3

illustrates the analytical model employed to show the relationship between e-government and service delivery

The second stage was to introduce the moderating variable that is, leadership style variable into the relationship between e-government and service delivery as espoused by hypothesis H₀₅ and this was the second model (the moderated model). Table 3.2 and 3.3 shows the summary of the analytical models that were employed to test the set hypotheses in this study.

Table 3.2: Direct Effects Model

Hypothesis Statement		Regression Model
H ₀₁	Integrated service does not significantly affect service delivery in the public service.	$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$ <p>Where:</p> <p>Y = Service delivery</p>
H ₀₂	Online service does not significantly affect service delivery in the public service.	<p>X₁ = Integrated Service</p> <p>X₂ = Online Service</p> <p>X₃ = Interactive Participation</p>
H ₀₃	Interactive participation does not significantly affect service delivery in the public service.	<p>X₄ = Automation of Records</p> <p>β_0 = y-intercept/constant</p> <p>β_1-β_4=Regression coefficients</p>
H ₀₄	Automation of records does not significantly affect service delivery in the public service.	<p>ε = Error term-random variation due to other unmeasured factors</p>

Table 3.3: Moderation Model

Hypothesis Statement	Model 2
<p>H₀₅: Leadership style has no moderating role on the relationship between e-government and service delivery.</p>	<p>OLS model $Y = \beta_0 + \beta_1X + \beta_2Z + \varepsilon$</p> <p>MMR model: $Y = \beta_0 + \beta_1X + \beta_2Z + \beta_3X*Z + \varepsilon$</p> <p>Y= Service delivery</p> <p>β_0 = y-intercept/constant</p> <p>β_1 = Least squares estimate of the population regression coefficient for X</p> <p>X= Degree of the individual independent variable(Service Delivery)</p> <p>Z= A hypothesized binary grouping moderator (nature)</p> <p>β_2 = Least squares estimate of the population regression coefficient for Z</p> <p>X*Z= The product between the predictors (Independent variable*Moderator)</p> <p>β_3 = The sample base least squares estimates of the population regression coefficient for the product term</p> <p>ε =error term-random variation due to other unmeasured factors</p>

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSION

4.1 Introduction

This chapter describes the main results obtained by analyzing the questionnaire data. Subsequently, the research results are presented in tabular form using a variety of descriptive and inferential statistics that sets out the key characteristics of the data. Finally, the results are discussed in details.

4.2 Response Rate

Although the study intended to collect data from 361 respondents, data was successfully collected from 300 respondents. This represents a response rate of 83% and falls within the confines of a large sample size ($n \geq 30$). This response rate deemed acceptable in accordance with recommendations by Mugenda and Mugenda (2012) that a response rate of 50% is adequate for analysis and reporting a rate of 60% is generally good while a response rate of above 70% is excellent. This is also supported by Kothari (2011) who states that a response rate of above 70% is very good. This provides a smaller margin of error and good precision (Malhotra, 2007).

4.3 Profile of Respondents

The demographic profile of the surveyed respondents which includes gender, age, education and work experience at in Huduma center is presented in this section.

4.3.1 Gender of the Respondents

The study sought to obtain the gender distribution of the respondents. From the analyzed data, the gender distribution of the survey respondents was 72.2% (214) males and 28.8% (86) females. This is presented in Table 4.1. This shows gender disparity in the number of employees in favour of men.

Table 4.1: Gender Distribution of the Respondents

Variable	Category	Frequency	Percentage
Gender	Female	86	28.8
	Male	214	71.2
	Total	300	100.0

4.3.2 Age of the Respondents

For age, results indicated that 58.3% of respondents were below 30 years, 19.4% were in age bracket 31-40 years, 15.1% were between 41-50 years old, while 7.2% were above 50 years. The results are summarized in Table 4.2.

Table 4.2: Age Distribution of the Respondents

Variable	Category	Frequency	Percentage
Age	Below 30	175	58.3
	31-40 years	58	19.4
	41-50 years	45	15.1
	Above 50 years	22	7.2
	Total	300	100.0

This indicated that the majority of the respondents were below 30 years (57.9%) and were thus deemed to be more technologically savvy to respond to question items on issues of use of information technology to render services to the citizens.

4.3.3 Education Level of the Respondents

Further, the respondents indicated that most of them (47.1%) had degree level of education, 11.2% had postgraduate qualification, 30.6% had diplomas, and 11.2% had certificate level of education. The results are as depicted in Table 4.3. This meant that the respondents had the requisite literacy skills to comprehend the question items in the tool used to collect data.

Table 4.3: Education Level of the Respondents

Variable	Category	Frequency	Percentage
Education Level	Masters	34	11.2
	Degree	141	47.1
	Diploma	92	30.6
	Certificate	34	11.2
	Total	300	100.0

4.3.3 Work Experience in Huduma Centres

Analyzed data indicated that most of the respondents (56.1%) have been employees of Huduma Centre for between 1-3 years. While 39.9% had worked at the Huduma Centre for less than one year and 4.0% had more than three years work experience at the Huduma Centre. The results are presented in Table 4.4. This implied that the respondents the requisite work experience to give reliable data on the effect of e-government in the Huduma Centres on service delivery.

Table 4.4 Work Experience Profile of the Respondents

Variable	Category	Frequency	Percentage
Work Experience	Below 1 year	120	39.9
	1-3 years	168	56.1
	Above 3 years	12	4.0
	Total	300	100.0

4.4 Validity of Study Measures

Assessment of the research instrument is very essential. The objective of this assessment is to establish the accuracy of the relationship between the measure and the underlying traits the instrument is trying to measure. Test of construct validity is one of the most common techniques and its purpose is to ascertain whether the expected pattern of relationships exist among the variables.

To assess the construct validity, the items were examined by principal components extraction with varimax orthogonal rotation. Principal component analysis with varimax rotation is widely adopted as a reliable method of factor analysis (Malhotra, 1999). Varimax rotation tries to maximize the variance of each of the factors, so the total amount of variance accounted for is redistributed over the extracted factors. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy, and approximate Chi-Square and Bartlett's test of Sphericity were all conducted in accordance to Field's (2005) recommendations. The following sections present the factor analysis results for each study variables.

4.4.1 Factor Analysis for Integrated Approach and Online Service

Factor analysis for integrated approach gave a Kaiser-Meyer-Olkin (KMO) statistic of 0.598, which is above the threshold of 0.5 (Field, 2005). The Bartlett's test was significant with Chi-Square= 1086.677 (p-value< 0.05). Therefore, with the KMO value of 0.578 and a significance of Bartlett's statistic confirmed the appropriateness of the factor analysis for integrated approach. The Chi-square value indicated a good fit between the model and the integrated approach data and that there exists an adequate correlation among the extracted variables. The results are presented in Table 4.5.

The results of factor analysis for integrated approach as a variable showed that the 10 items clustered into 4 components. The eigenvalues of a factor represent the amount of the total variance explained by that factor. The results of principal component analysis indicate that, there are four factors whose eigenvalues exceeded 1.0. The eigenvalues for the four factors extracted were 2.119, 1.943, 1.785, and 1.755. Any item that fails to meet the criteria of having a factor loading value of greater than 0.5 and loads on one and only one factor was dropped from the study (Liao *et al.*, 2007). The four factors identified for the integrated approach explained 76% of the total variance.

According to the result for integrated approach presented in Table 4.5, first factor, exhibited heavy loadings for three items. This factor consists of factor loadings for IA4, IA6, and IA10. Items IA1 and IA5 loaded onto the second factor. For the third factor, items IA7 and IA9 loaded onto it strongly while IA2 and IA8 loaded onto the fourth factor. Item IA3 loaded onto two factors and hence was deleted from subsequent analysis.

For online service, factor analysis gave a Kaiser-Meyer-Olkin (KMO) statistic of 0.635, which is above the threshold of 0.5 (Field, 2005). The Bartlett's test was significant with Chi-Square= 1519.827 (p-value< 0.05). Therefore, with the KMO value of 0.578 and a significance of Bartlett's statistic confirmed the appropriateness of the factor analysis for integrated approach.

Three components had their eigenvalues exceeding 1.0: component 1 (4.521), component 2 (1.575) and component 3 (1.205). The three components explained 66.367% of the total variance. Items OS2, and OS6 loaded onto component one. For the second factor, items OS8, OS9, and OS10 loaded strongly onto it while item OS1, and OS3 loaded onto component 3.

Any item that fails to meet the criteria of having a factor loading value of greater than 0.5 and loads on one and only one factor is to be dropped from the study (Field, 2005). This implies item OS5 was dropped from the study since it loaded twice. Item OS4 and OS7 were also dropped since they did not load to any of the three components. The results are summarized in Table 4.5.

Table 4.5: Factor Analysis for Integrated Approach and Online Service

	Component	Loading	Eigen Value	%Var	α
A. Integrated Approach					
	Component 1		2.119	21.192	.719
IA4	The services are not clearly marked	.753			
IA6	Has reduced costs of multiple services	.714			
IA10	Has not increased efficiency of staff	.785			
	Component 2		1.943	19.426	.675
IA1	Enable the clients to get what they need in one roof	.822			
IA5	Has increased accountability	.806			
	Component 3		1.783	17.832	
IA7	Has enhanced service standards	.743			.606
IA9	Related services are linked	.754			
	Component 4		1.755		.627
IA8	Has not given value for money/time	.789			
IA2	Has enhanced image of the government.	.832		17.552	
	KMO measure of sample adequacy	.598			
	Bartlett's test of sphericity	Approx. Chi-Square=1086.677 (p< 0.05)			
	Determinant R-matrix value	.019 (Greater than .00001)			
B. Online Service					
	Component 1		4.521	25.039	.721
OS2	Is efficient	.651			
OS6	Has tracking of the application/request	.926			
	Component 2		1.575	23.043	.803
OS8	Required documentation is clear	.647			
OS9	Enables one to access information	.793			
OS10	Is not affected by system failures	.871			
	Component 3		1.205	18.284	.676
OS1	Is faster	.819			
OS3	Services are not accessible easily	.812			
	KMO	.635			
	Bartlett's test of sphericity	Approx. Chi-Square=1519.827(p< 0.05)			
	Determinant R-matrix value	.0001 (Greater than .00001)			

4.4.2 Factor Analysis for Interactive Participation and Automation of Service

The Kaiser-Meyer-Olkin (KMO) for interactive participation had a measure of 0.712, which is above the threshold of 0.5 (Field, 2005). The Bartlett's test is significant for interactive participation with Chi-Square= 1023.770 (p-value< 0.05). Therefore, the KMO value of 0.712 and significance of Bartlett's statistic confirm the appropriateness of the factor analysis for. The results are presented in Table 4.6.

Results showed that the 9 items for interactive participation are sorted and clustered into three components. The results of principal component analysis indicate that, there are three factors whose Eigenvalues exceed 1.0. The eigenvalue of a factor represents the amount of the total variance explained by that factor. For interactive participation, the first factor has eigenvalue of 3.422 and the second factor has eigenvalue of 1.979. While the eigenvalue of third component was 1.066. The three factors identified for the independent variable; interactive participation explained 71.853% of the total variance.

The items that measured automation of record were subjected to factor analysis and the results showed that It had a Kaiser-Meyer-Olkin (KMO) measure of .698 and the Bartlett's test is significant with Chi-Square= 1759.897 (p-value< 0.05). It had three components whose eigenvalues exceeded 1.0. The three factors had eigenvalues of 4.133, 2.114, and 1.246 respectively. Items AR06, AR07, AR08, AR09, and AR10 loaded onto factor 1. Factor 2 had AR01 and AR03 loading onto it while AR02 and AR04 loaded onto factor 3. Item AR05 loaded twice and hence was deleted. The results of principal component analysis indicated that the components extracted explained 74.935% of the total variance. The results are summarized in Table 4.6.

Table 4.6: Factor Analysis for Interactive Participation and Automation

Component		Loading	Eigen Value	%Var	α
A. Integrated Approach					
Component 1			3.422	32.593	.841
IP05	The customer is satisfied with feedback mechanisms	.804			
IP06	The customer is consulted on service improvement	.863			
IP07	The centre acts on customer recommendations	.860			
IP09	The customer has no access to the service delivery point	.682			
Component 2			1.979	24.697	.820
IP01	Customer opinion is valued	.878			
IP02	There is a feedback mechanism in place	.853			
IP03	Customers opinion is asked before implementing new systems	.819			
Component 3			1.066	14.563	
IP04	Customer processes are not user friendly	.873			-
	KMO measure of sample adequacy	.721			
	Bartlett's test of sphericity	Approx. Chi-Square=1023.770 (p< 0.05))			
	Determinant R-matrix value	.022 (Greater than .00001)			
B. Automation Of Records					
Component 1			4.133	39.568	.909
AR06	Has not improved reliability of service	.707			
AR07	It has improved office efficiency	.910			
AR08	Has not enhanced timely services	.851			
AR09	Has privacy of client information	.871			
AR10	Has reduced unethical practices	.907			
Component 2			2.114	18.353	.772
AR01	All the information is automated	.866			
AR03	Has not enhanced retrieval of information	.853			
Component 3			1.246	17.013	.626
AR02	There is no paper work involved	.861			
AR04	Has made response to referrals easier	.666			
	KMO measure of sample adequacy	.698			
	Bartlett's test of sphericity	Approx. Chi-Square=1759.897 (p< 0.05)			
	Determinant R-matrix value	.002 (Greater than .00001)			

4.4.3 Factor Analysis for Service Delivery

Further, factor analysis results for service delivery indicated that the Kaiser-Meyer-Olkin (KMO) was .821, which is above the threshold of 0.5 (Field, 2005). The Bartlett's test is significant for service delivery with Chi-Square= 4037.981 (p-value< 0.05). Therefore, with the KMO value of .821 and significance of Bartlett's statistic confirm the appropriateness of the factor analysis for. The results are presented in Table 4.7. Two factors with eigenvalues of 6.860, and 2.027 exceeded the threshold of 1.0 and they explained 74.057% of the total variance. Items SD05, SD06, SD07, SD08, SD09, SD010, SD11, and SD12 loaded onto factor 1. Factor 2 had SD01, SD02, SD03, and SD04 loading onto it.

Table 4.7: Factor Analysis for Service Delivery

		Loading	Eigen Value	% Var	α
Component 1			6.860	51.357	.956
SD05	Has reduced distances to access service centres	.764			
SD06	There is no complaint feedback mechanism	.925			
SD07	There is improved speed of service	.907			
SD08	There is ease of access to information	.704			
SD09	There is reduced corrupt tendencies	.821			
SD10	Cost of availing services is low	.928			
SD11	The services are not customer friendly	.867			
SD12	There is complaint feedback mechanism	.922			
Component 2			2.027	22.700	.806
SD01	The staff are helpful	.793			
SD02	Services are convenient	.761			
SD03	Services are reliable	.827			
SD04	The services offered are seamless	.719			-
	KMO measure of sample adequacy	.821			
	Bartlett's test of sphericity	Approx. Chi-Square=4037.981 (p-< 0.05)			
	Determinant R-matrix value	.0007 (Greater than .00001)			

4.4.4 Factor Analysis Results of Leadership Styles

For transformational leadership style, the Kaiser-Meyer-Olkin (KMO) had a measure of .815, which is above the threshold of 0.5 (Field, 2005). The Bartlett's test is significant for structural bonds with Chi-Square= 3448.761 (p-value< 0.05). Therefore, the KMO value of .815 and significance of Bartlett's statistic confirm the appropriateness of the factor analysis for transformational leadership style.

The results are presented in Table 4.8. Results show that the 12 items transformational leadership style are sorted and clustered into two components for results of principal component analysis indicate that, there are two factors whose Eigenvalues exceed 1.0. The Eigenvalue of a factor represents the amount of the total variance explained by that factor. For transformational leadership style, the first factor has eigenvalue of 6.676, and the second factor has eigenvalue of 1.993. The two factors identified for the moderator variable; transformational leadership style explains 72.244% of the total variance. The first factor explained 50.105% of this variance while the second factor explained 22.139% of the total variance.

Transformational leadership style items that failed to meet the criteria of having a factor loading value of greater than 0.5 and loads on one and only one factor was dropped from the study (Field .,2005). According to the result presented in Table 4.5, first factor, exhibited heavy loadings for seven items: TF05, TF06, TF07, TF08, TF09, TF10, TF11 and TF12. Factor two exhibits heavy loading for four items comprising; TF01, TF02, TF03, and TF04. Factor analysis presented a good fit between the transformational leadership style data and the proposed model. The goodness-of-fit statistic indicates that the model is acceptable and statistically significant (Dhamuniya, 2013). The Chi-square value of 3448.761 and (p-value< 0.05) indicates a good fit between the model and the transformational leadership style data and there exists an adequate correlation among the extracted variables.

For transactional leadership style, the Kaiser-Meyer-Olkin (KMO) had a measure of .896, which is above the threshold of 0.5 (Field, 2005). The Bartlett's test is significant for structural bonds with Chi-Square= 2977.467 (p-value< 0.05). Therefore, the KMO value of .896 and significance of Bartlett's statistic confirm the appropriateness of the factor analysis for transactional leadership style. The results are presented in Table 4.8. Results show that the 6 items transactional leadership style are sorted and clustered into only one component for principal component analysis indicate that, there is only one factor whose eigenvalues exceed 1.0. The factor identified for the moderator variable; transactional leadership style explains 91.633% of the total variance. Transactional leadership style had only one factor extracted and hence it was not rotated.

Factor analysis presented a good fit between the transactional leadership style data and the proposed model. The goodness-of-fit statistic indicates that the model is acceptable and statistically significant (Hope, 2012). The Chi-square value of 2977.467 and (p-value< 0.05) indicates a good fit between the model and the transactional leadership style data and there exists an adequate correlation among the extracted variables.

Table 4.8: Factor Leadership Styles

		Loading	Eigen Value	% Var	α
A. Transformational Leadership Style					
Component 1			6.676	50.105	.950
TF05	Provides appealing images about what we can do	.744			
TF06	Help others find meaning in their work.	.921			
TF07	Provides new ways of looking at things	.888			
TF08	Enables one to look at old problems in new ways	.699			
TF09	Gets others to rethink ideas	.808			
TF10	Does help others develop themselves	.912			
TF11	Lets others know how he/she thinks they are doing	.864			
TF12	Gives personal attention those who seem rejected	.910			
Component 2			1.993	22.139	.795
TF01	Make us feel good to be around him/her	.787			
TF02	Does command complete faith from employees	.756			
TF03	Others are proud to be associated with him/her	.817			
TF04	Express what we could and should do	.708			
	KMO measure of sample adequacy	.815			
	Bartlett's test of sphericity	Appr.	Chi-Square=3448.761		
		(p<0.05)			
	Determinant R-matrix value	.006	(Greater than .00001)		
B. Transactional Leadership Style					
			5.498	91.633	.982
TS01	Says the reward for doing a given assignment	.174			
TS02	Gets us to understand	.176			
TS03	Provides recognition when others reach their goals	.176			
TS04	When things are working, does not change	.175			
TS05	Says what others can get for what they accomplish	.173			
TS06	Sates standards to carry out their work	.171			
	KMO measure of sample adequacy	.896			
	Bartlett's test of sphericity	Appr.	Chi-Square=2977.467		
		(p<0.05)			
	Determinant R-matrix value	.005	(Greater than .00001)		

4.5 Reliability Test

Cronbach's alpha reliability test was used to determine the internal consistency of the question items that measured the variables of interest for this study. For e-government variables the reliability test was done for the four constructs of integrated approach, online service, interactive participation, and automation of records. For leadership style the Cronbach's coefficient was calculated for transformational and transactional leadership styles. Also, for service delivery the coefficient was determined. The benchmark of Cronbach's coefficient value of greater than 0.7 indicates the tool was reliable to measure the variable Sekeran (2000). Table 4.9 presents the results of the reliability test.

From tabulated results in Table 4.6, alpha coefficient for all the variables of e-government were in the range .665 –.982 Hence are above the benchmark of 0.7 suggested by and thus scales were reliable for measuring the variables.

Table 4.9: Cronbach's alpha Reliability coefficient

Variable	Constructs	No of items	Alpha
E-government	Integrated Approach	9	.764
	Online Service	10	.778
	Interactive Participation	9	.665
	Automation of Records	10	.790
Leadership Style	Transformational	12	.918
	Transactional	6	.982
Service Delivery	-	12	.923

4.6 Descriptive Statistics of the Study Variables

Descriptive statistics of means, standard errors, and standard deviation were obtained for the variables integrated approach, online service, interactive participation, automation of records, service delivery, transformational leadership, and transactional leadership.

4.6.1 Integrated Approach

The descriptive statistics for the items of integrated approach indicated that the means were in the range 3.651 to 3.932. This gave an overall mean of 3.846. On a 7-point likert scale, the scores were above average. The standard deviations were in the range 1.531 to 1.852. The overall standard deviation for charismatic leadership was .960 and it infers that 99.9% of the responses were spread within three standard deviation of the overall mean.

The relatively low standard deviation value indicates that the variability in the spread of the scores was low. The standard errors of the mean for the items measuring integrated approach were low indicating that the mean values for the items were reliable. The respondents scored highest in the aspect of 'Has enhanced service standards' (IA6). 'Has enhanced service standards (IA7) item had the lowest mean. Integrated approach descriptive statistics are presented in Table 4.10.

Table 4.10: Descriptive Statistics for Online Service

Code	Item	Mean		SD
		Stat.	SE	
IA1	Enable the clients to get what they need in one roof	3.666	.111	1.852
IA2	Has enhanced image of the government.	3.709	.107	1.778
IA3	Offers less time in completing transactions	3.763	.100	1.672
IA4	The services are not clearly marked	3.860	.092	1.531
IA5	Has increased accountability	3.845	.096	1.608
IA6	Has reduced costs of multiple services	3.932	.095	1.587
IA7	Has enhanced service standards	3.651	.107	1.786
IA8	Has not given value for money/time	3.791	.103	1.712
IA9	Related services are linked	3.784	.097	1.615
Overall Mean		3.846	.058	.960

4.6.2 Online Service

Considering the variable of online service, the mean as a measure of central tendency was found to be in the range 2.957 to 3.993 for the items measuring the variable. The overall mean for the variable online service was found to be 3.603. On a 7-point likert scale, this meant that the Huduma centers scored above average on the aspect of online service. The values of standard deviations for online service were in the range 1.515 to 1.945 and the overall standard deviation was 1.026 indicating that 99.9% of the responses were spread within the range 2.577 to 4.629.

The relatively high standard deviation value indicates that the variability in the spread of the scores was high. For standard error of the mean the value was .061 indicating that the mean values for the items were reliable. Inspection of the scores of each item measuring online service indicated that the respondents scored highest in the item ‘Has removed interaction with middlemen’ (OS5) which posted a mean value of 3.993 which

with a standard deviation of 1.728. On the other hand, the item ‘Has enabled me to access critical information online’ (OS9) had the lowest mean of 2.957 with standard deviation of 1.871. The online service descriptive statistics are presented in Table 4.11.

Table 4.11: Descriptive Statistics for Online Service

Code	Item	Mean		SD
		Statistic	SE	
OS1	Is faster	3.838	.091	1.515
OS2	Is efficient	3.524	.102	1.692
OS3	Services are not accessible easily	3.769	.106	1.743
OS4	It is easy to upload documents using the e-services	3.752	.099	1.654
OS5	The services are a source of convenience to the applicants	3.993	.104	1.728
OS6	Has tracking of the application/request	3.797	.107	1.785
OS7	Instructions are clear	3.781	.117	1.945
OS8	Required documentation is clear	3.467	.110	1.840
OS9	Enables one to access information	2.957	.112	1.871
Overall Mean		3.603	.061	1.026

4.6.3 Interactive Participation

Further, the descriptive statistics of measures of central tendency and measures of dispersion for all the items measuring interactive participation were analyzed. The means for the items were in the range 3.252 to 4.313 and the attendant standard deviations in the range 1.615 to 2.013. The overall mean and standard deviation for the variable interactive participation was 3.546 and 1.229 respectively. This in effect indicated that 99.9% of the values for this variable were in the range 2.317 to 4.775.

The low standard deviation value points at low variability in the responses for interactive participation. The low mean standard error of .074 meant the mean was reliable. The item ‘Has processes that are not user friendly’ (IP4) had the highest mean value of 4.313 with a standard deviation of 1.615. While the item ‘Has no feedback mechanism’ (IP2) had the lowest score with a mean of 3.252 and standard deviation of 1.963. The results are presented in Table 4.12.

Table 4.12: Descriptive Statistics for Interactive Participation

Code	Item	Mean		SD
		Stat.	SE	Stat.
IP1	Customer opinion is valued	3.435	.118	1.962
IP2	There is a feedback mechanism in place	3.252	.119	1.963
IP3	Customers opinion is asked before implementing new systems	3.464	.119	1.987
IP4	Customer processes are not user friendly	4.313	.277	1.615
IP5	The customer is satisfied with feedback mechanisms	3.730	.121	2.013
IP6	The customer is consulted on service improvement	3.504	.116	1.937
IP7	The centre acts on customer recommendations	3.266	.114	1.893
IP8	Customer service desk is easily accessible	3.291	.100	1.669
IP9	The customer has no access to the service delivery point	3.655	.103	1.715
Overall Mean		3.546	.074	1.229

4.6.4 Automation of Records

The descriptive statistics for all the 9 items measuring automation of records were obtained. The mean values and the accompanying standard deviations were in the range 3.259 to 4.176 and 1.567 to 1.929 respectively. The analysis further indicated that the overall mean for the items measuring automation of records was 3.707. Considering the

7-point likert scale used in the study, this meant the automation of records level in the Huduma Centre is above average. Standard deviation as a measure of the spread of the scores had an overall value of 1.057 and this indicated a moderate spread of the values measuring automation of records as a variable. The standard errors were low and hence it was concluded that the mean values obtained for all the items and the overall mean were reliable. The Descriptive statistics are presented in Table 4.13.

Table 4.13: Descriptive Statistics for Automation of Records

Code	Item	Mean		SD
		Stat.	SE	Stat.
AR1	All the information is automated	4.176	.094	1.567
AR2	There is no paper work involved	3.572	.104	1.731
AR3	Has not enhanced retrieval of information	3.442	.100	1.661
AR4	Has made response to referrals easier	4.032	.103	1.719
AR5	It has enhanced communication.	3.259	.112	1.861
AR6	Has not improved reliability of service	3.576	.104	1.741
AR7	It has improved office efficiency	3.306	.116	1.929
AR8	Has not enhanced timely services	3.345	.116	1.927
AR9	Has privacy of client information	3.335	.108	1.798
Overall Mean		3.707	.063	1.057

4.6.5 Service Delivery

The descriptive statistics for the items of service delivery indicated that the means were in the range 2.788 to 3.730. This gave an overall mean of 3.126. On a 7-point likert scale, the mean score was above average. The standard deviations were in the range 1.783 to 2.134. The overall standard deviation for charismatic leadership was 1.455 and it infers that 99.9% of the responses were spread within three standard deviation of the

overall mean. The relatively high standard deviation value indicates that the variability in the spread of the scores was low. The standard errors of the mean for the items measuring integrated approach were low indicating that the mean values for the items were reliable. The Huduma Centers scored highest in the aspect of ‘The staff are helpful’ (SD1). While ‘There is no complaint feedback mechanism (SD12) item had the lowest mean. Service delivery descriptive statistics are presented in Table 4.14.

Table 4.14: Descriptive Statistics for Service Delivery

Code	Item	Mean		SD
		Stat.	SE	Stat.
SD1	The staff are helpful	3.730	.110	1.835
SD2	Services are convenient	2.835	.107	1.783
SD3	Services are reliable	3.579	.125	2.078
SD4	The services offered are seamless	3.216	.126	2.100
SD5	Has reduced distances to access service centres	3.090	.127	2.125
SD6	There is no complaint feedback mechanism	2.791	.117	1.943
SD7	There is improved speed of service	2.914	.122	2.037
SD8	There is ease of access to information	3.130	.111	1.857
SD9	There is reduced corrupt tendencies	3.471	.111	1.859
SD10	Cost of availing services is low	2.989	.128	2.134
SD11	The services are not customer friendly	2.975	.120	2.008
SD12	There is complaint feedback mechanism	2.788	.116	1.941
Overall Mean		3.126	.087	1.455

4.6.6 Transformational Leadership

The descriptive statistics for all the 12 items measuring transformational leadership were obtained. The mean values and the accompanying standard deviations were in the range 2.809 to 3.701 and 1.767 to 2.138 respectively. The analysis further indicated that the overall mean for the items measuring transformational leadership was 3.163. Considering the 7-point likert scale used in the study, this meant the transformational leadership level in the Huduma Centre is below average. Standard deviation as a measure of the spread of the scores had an overall value of 1.44 and this indicated a moderate spread of the values measuring automation of records as a variable. The standard errors were low and hence it was concluded that the mean values obtained for all the items and the overall mean were reliable. The Descriptive statistics are presented in Table 4.145

Table 4.15: Descriptive Statistics for Transformational Leadership

Code	Item	Mean		SD
		Stat.	SE	Stat.
TF1	Make us feel good to be around him/her	3.701	.110	1.836
TF2	Does command complete faith from employees	2.835	.106	1.767
TF3	Others are proud to be associated with him/her	3.600	.124	2.071
TF4	Express what we could and should do	3.234	.126	2.104
TF5	Provides appealing images about what we can do	3.155	.128	2.138
TF6	Help others find meaning in their work.	2.863	.116	1.942
TF7	Provides new ways of looking at things	2.950	.122	2.042
TF8	Enables one to look at old problems in new ways	3.212	.114	1.897
TF9	Gets others to rethink ideas	3.518	.113	1.876
TF10	Does help others develop themselves	3.040	.128	2.138
TF11	Lets others know how he/she thinks they are doing	3.036	.119	1.991
TF12	Gives personal attention those who seem rejected	2.809	.116	1.931
Overall Mean		3.163	.086	1.44

4.6.7 Transactional Leadership

Finally, the descriptive statistics of measures of central tendency and measures of dispersion for all the items measuring transactional leadership were analyzed. The means for the items were in the range 4.090 to 4.245 and the attendant standard deviations in the range 1.381 to 1.442. The overall mean and standard deviation for the variable transactional leadership was 4.171 and 1.351 respectively. The low standard deviation value points at low variability in the responses for transactional leadership. The low mean standard error of .081 meant the mean was reliable. The item ‘Tell others the standards when to carrying out their work’ (TS6) had the highest mean value of 4.245 with a standard deviation of 1.385. While the item ‘Gets us to understand what is expected (TS2) had the lowest score with a mean of 4.090 and standard deviation of 1.418. The results are presented in Table 4.16.

Table 4.16: Descriptive Statistics for Transactional Leadership

Code	Item	Mean		SD
		Stat.	SE	Stat.
TS1	Gets us to understand	4.125	.085	1.415
TS2	Provides recognition when others reach their goals	4.090	.085	1.418
TS3	When things are working, does not change	4.173	.087	1.442
TS4	Says what others can get for what they accomplish	4.155	.086	1.427
TS5	Sates standards to carry out their work	4.237	.083	1.381
TS6	Gets us to understand what is expected of us	4.245	.083	1.385
Overall Mean		4.171	.081	1.351

4.7 Test of Regression Assumptions

The data was tested to determine whether the assumptions of ordinary least square (OLS) are met.

4.7.1 Test of Normality

Most of the inferential statistical techniques require the fulfilment of normality assumption (Field, 2005). Normal data is the one that is symmetrical, bell-shape, with the greatest frequency of scores in the middle and smaller distribution towards the extreme ends. Normality can be examined by using the values of skewness and kurtosis. While skewness has to do with symmetry, kurtosis indicates the extent to which the data is peak or flat (Tabacknich & Fidell, 2007). The skewness statistic and kurtosis statistic obtained for the variables of interest in this study were in the range -.721-.827 for skewness and -.417-.963 for kurtosis. According to Hair *et al.*(2010) the requisite range for normally distributed data is between -1.00 and +1.00. All the values of skewness and kurtosis fell in the range -1.00 and +1.00 and it was concluded that the distribution of data for the variables was normal. The results are summarized in Table 4.17.

Table 4.17: Normality Test Results

	Mean	SD	Skewness		Kurtosis	
			Statistic	SE	Statistic	SE
Integrated Approach	3.8460	.95960	.415	.146	.616	.291
Online Service	3.6033	1.02612	.282	.146	-.199	.291
Interactive Participation	3.5464	1.22850	.731	.146	.963	.291
Automation of Records	3.5072	1.05684	.380	.146	-.079	.291
Service Delivery	3.1259	1.45470	.827	.146	.133	.291
Transformational Leadership	3.1628	1.43641	.747	.146	.075	.291
Transactional Leadership	4.1709	1.35107	-.721	.146	-.417	.291

Further, Kolmogrov-Smirnov test was used to check the normality of the distribution for the variables. Kolmogrov-Smirnov test compares scores in the sample to a normally distributed set of scores with the same mean and standard deviation and if the test is non-significant ($p>0.5$) then the distribution of the sample is not significantly different from normal distribution. The results of the K-S test were as indicated in Table 4.18. The K-S test statistic for the variables integrated approach, online service, interactive participation, automation of records, transformational leadership, transactional leadership, and service delivery were not significant ($p>0.5$) and it was concluded that the variables are normally distributed. The fact that data on the key variables did not deviate significantly from normal distribution can be translated to mean that it is safe to use statistical tests such as correlation and regression that assume normality of these variables. Normality plots (Appendix C) are presented in Figure 1 to 7.

Table 4.18: One-Sample Kolmogorov-Smirnov Test Results

		IA	OS	IP	AR	SD	TF	TS
N		278	278	278	278	278	278	278
Normal	Mean	3.84	3.60	3.54	3.50	3.12	3.16	4.17
Parameters	SD	.959	1.02	1.22	1.05	1.45	1.43	1.35
Most	Absolute	.158	.142	.087	.102	.124	.113	.187
Extreme	Positive	.156	.141	.087	.102	.124	.113	.093
Differences	Negative	-.158	-.142	-.036	-.098	-.081	-.074	-.187
KS- Z		2.63	2.36	1.453	1.70	2.06	1.88	3.11
Asymp. Sig. (2-tailed)		.670	.790	.69	.89	.98	.92	.70

4.7.2 Test of Independence of the Error Terms

Test of independence of the error terms was done using Durbin-Watson test. The test was used to test for presence of serial correlation among the residuals. This assumption of independence of errors requires that the residuals or errors in prediction do not follow a particular pattern from case to case. The value of Durbin-Watson test statistic ranges from 0 to 4 as suggested by Hair et al. (2010) the residuals are not correlated if the Durbin-Watson statistic is approximately 2 and the acceptable range is 1.5-2.50. The Durbin-Watson statistic for the estimated models 1-9 ranged from 1.531 to 1.885. It was therefore concluded that there was independence of the error terms.

4.7.3 Multi-collinearity Diagnostics

Collinearity means that two or more of the independent/explanatory variables in a regression have a linear relationship. This causes a problem in the interpretation of the regression results. First, an examination of the correlation matrix of the independent variables was done. The presence of high correlations in the region of $r=0.9$ and above is an indication of substantial collinearity.

Secondly, collinearity could be due to the combination of two or more other independent variables. Multi-collinearity was assessed using Variance Inflation Factors (VIF). A threshold of Variance inflation factor of 10 is suggested by Field (2005). The variance inflation factor values for integrated approach, online service, interactive participation, automation of records, transformational leadership, transactional leadership, and service delivery are in the range of 1.132- 3.318 and are less than the set threshold which indicate that multi-collinearity was not an issue. The results are presented in Table 4.19.

Table 4.19: Collinearity Statistic for variables

Variables	Tolerance	VIF
Integrated Approach	.385	2.597
Online Service	.301	3.318
Interactive Participation	.883	1.132
Automation of Records	.605	1.652

4.8 Correlation Analysis of Study Variables

Pearson correlation analysis was used to examine the relationship between the variables (Wong & Hiew, 2005). The results are presented in Table 4.20. All the associated pairs of variables were significant at level 0.01 hence hypothesized relationships developed were found to be statistically significant at level $p < 0.01$. Service delivery and integrated approach had a positive significant relationship ($r=.275$, $p < 0.01$). Service delivery correlated with online service significantly and positively ($r=.464$, $p < .01$). There was a positive significant relationship between service delivery and interactive participation ($r=.311$, $p < .01$).

Service delivery correlated with automation of records significantly and positively ($r=.456$, $p < .01$). Considering the leadership styles, there was a positive and significant between transformational leadership style and service delivery ($r=.972$, $p < .01$). While

transactional leadership style had a negative and significant relationship with service delivery ($r=.972$, $p<.01$). This means that none of the variables was dropped from the subsequent regression analysis. Further, all the constructs of e-government are positively and significantly correlated to transformational leadership style. On the other hand all the constructs of e-government are negatively and correlated to transactional leadership style.

Table 4.20: Correlation Coefficients

	1	2	3	4	5	6	7
1. Service Delivery	1						
2. Integrated Approach	.275**	1					
3. Online Service	.464**	.783**	1				
4. Interactive Participation	.311**	.297**	.337**	1			
5. Automation of Records	.456**	.495**	.628**	.197**	1		
6. Transformational Leadership	.972**	.266**	.461**	.263**	.416**	1	
7. Transactional Leadership	-.244**	-.102	-.116	-.086	-.077	-.239**	1

** . Correlation is significant at the 0.01 level (2-tailed).

4.9 Regression Results

The study sought to investigate the effect of e-government on service delivery. It was based on the assumption that this link is moderated by leadership style. The first section of the analysis involved investigating the effects of the independent variables (integrated approach, online service, interactive participation, automation of records) on service delivery, the direct effects. Secondly, the moderating effect of leadership style is determined.

4.9.1 Regression Results for Direct Effect

The first hypothesis (H_{01}) stated that integrated approach has no significant effect on service delivery. The results of the regression analysis suggested that integrated approach had a positive significant effect on service delivery ($\beta = .248, p < 0.05$). Hence the hypothesis is not supported. The value of the F-statistic showed that the model was robust enough to be used to explain the relationship between the variables ($F = 30.991, p < 0.05$). The findings suggest that as the level of integration of the services offered at the Huduma Centre increases, so does the level of service delivery. The results are presented in Table 4.21.

For the second hypothesis (H_{02}) it stated that online service has no significant effect on service delivery. Regression results indicated that online service had a positive significant effect on service delivery ($\beta = .421, p > 0.05$). Hence the hypothesis was rejected. The findings suggest that as reliance on online service increases, so does the level of service delivery.

The third hypothesis, (H_{03}), stated that interactive participation has no significant effect on service delivery. Regression results captured in Table 4.20 indicated that interactive participation had a positive significant effect on service delivery ($\beta = .188, p > 0.05$). This meant that interactive participation enhances service delivery.

The fourth and last direct effect hypothesis (H_{04}) stated that automation of record has no significant effect on service delivery. Regression results indicated that automation of record had a positive significant effect on service delivery ($\beta = .278, p > 0.05$). This implies that automation of records does enhance service delivery. The multiple regression results for testing the four direct ($H_{01}, H_{02}, H_{03},$ and H_{04}) hypotheses are presented in Table 4.20 as model 1.

Table 4.21: Multiple Regression Results

Model	1
	Service Delivery
Constant	.291(.346)*
Integrated Approach	.248(.123)*
Online Service	.421(.130)*
Interactive Participation	.188(.063)*
Automation of Records	.278(.089)*
F-Statistic	30.991
R	.559
R ²	.312
Adj. R ²	.302
Durbin-Watson	2.241

Values of standardized registration coefficients, with standard errors in parenthesis while *p < 0.05 indicates the value is significant at 95%. The coefficient of determination value of $R^2 = .312$ means that 31.2% of the variation in service delivery at the Huduma Centre can be explained by integrated approach, online service, interactive participation, and automation of records combined.

4.9.2 Regression Results for Moderating Effect

Using the moderated multiple regression analysis, the moderating effect of the variable leadership style was analyzed by interpreting; the R^2 change in the models obtained from the model summaries and the regression coefficients for the product term obtained from the model summaries. Prior to conducting the moderated multiple regression analysis, preliminary analyses were conducted to ensure that there was no violation of the assumptions of normality, linearity and homogeneity of error variance. Data was carefully examined to avoid the occurrence of; Type 1 error, which is the error of

rejecting the true null hypotheses at a specified (α) and Type 2 error (β), which is the error of failing to reject a false null hypotheses at a specified power (Field, 2005). In order to test for multicollinearity among the predictor variables, variance-inflation factor (VIF) and tolerance were applied. The multicollinearity statistics showed that the tolerance indicator for all the models (model 2-9) is all greater than 0.1 and their VIF values are less than 10. The result in Table 4.20 indicates that no multi-collinearity problem has occurred for all the moderation models 2-9.

4.9.2.1 Moderating Effect of Transformational Leadership Style

To determine the moderating effect of transformational leadership style on the relationship between integrated approach and service delivery, the relevant null hypotheses postulated was:

H_{05a}: Transformational leadership style does not significantly affect the relationship between integrated approach and service delivery.

Using the moderated multiple regression analysis, the moderating effect of the variable transformational leadership style was analyzed by interpreting the R^2 change in the models obtained from the model summaries and the regression coefficients for the product term obtained from the model summaries. The results are summarized in Table 4.22.

First, considering the moderating effect of transformational leadership on the integrated approach-service delivery link, results indicated that, $R = 0.846$, $R^2 = 0.716$ and $(F(2, 275) = 752.055, p = 0.000)$. Table 4.18 for model 2 indicates that the inclusion of the product term (IA*TF) resulted in an R^2 change of 0.041, $(F(3, 274) = 49.636, p = 0.000)$. The results show presence of moderating effect. Thus transformational leadership style explains 4.1% variance in service delivery above the variance by integrated approach. Thus it can safely be concluded that hypothesis H_{05a} is not supported since $\beta \neq 0$ and p-value is less than 0.05. For this mode I:

A=Integrated Approach, TF=Transformational leadership, IA*TF=Integrated approach* Transformational leadership. The results are presented in Table 4.21 as model 2. Secondly, to determine the moderating effect of transformational leadership style on the relationship between online service and service delivery, the relevant null hypothesis was postulated as:

H_{05b}: Transformational leadership style does not significantly moderate the relationship between online service and service delivery.

In the first step of the hierarchical regression analysis for online service and transformational leadership on service delivery, the results were as follows: $R = 0.829$, $R^2 = 0.687$ and $(F(2, 275) = 653.502, p = 0.000)$. In the second step when the interaction term OS*TF was included in the equation, it resulted in an R^2 change of 0.056, $(F(3, 274) = 64.354, p = 0.000)$. The results show presence of moderating effect. To put it differently, the moderating effect of transformational leadership style explains 5.6% variance in service delivery above the variance by online service. Thus it can safely be concluded that hypothesis H_{05b} is not supported since $\beta \neq 0$ and p -value is less than 0.05 while online service was statistically significant ($p < 0.05$; $\beta = 0.829$). The results are presented in Table 4.1 as model 3.

Further, to determine the moderating effect of transformational leadership style on the relationship between interactive participation on service delivery, the relevant null hypothesis was stated as follows:

H_{05c}: Transformational leadership style does not significantly affect the relationship between interactive participation and service delivery.

Table 4.20 shows that for step one of the analysis, $R = 0.837$, $R^2 = 0.701$ and $(F(2, 275) = 699.877, p = 0.000)$. In the second step, when the product term (IP*TF) was included in the equation, resulted in an R^2 change of 0.09, $(F(3, 274) = 9.390, p = 0.002)$. The results show presence of moderating effect. Thus, transformational leadership style

explains 9% variance in service delivery above the variance by interactive participation scores. Thus it was concluded that hypothesis H_{05c} is not supported since $\beta \neq 0$ and p-value is less than 0.05 and in step 1 interactive participation was statistically significant ($p < 0.05$; $\beta = 0.837$). The results are presented in Table 4.21 as model 4.

Lastly, to determine the moderating effect of transformational leadership style on the relationship between automation of records and service delivery, the relevant null hypotheses postulated was:

H_{05d}: Transformational leadership style does not significantly affect the relationship between automation of records and service delivery.

Results in Table 4.19 that for step one of the analysis, $R = 0.507$, $R^2 = .257$ and ($F(2, 275) = 719.877$, $p = 0.000$). In the second step, when the product term (AR*TF) was included in the equation, resulted in an R^2 change of 0.04, ($F(3, 274) = 123.534$, $p = 0.002$). The results show presence of moderating effect. Thus transformational leadership style explains 4% variance in service delivery above the variance by automation of records. Thus it was concluded that hypothesis H_{05d} is not supported since $\beta \neq 0$ and p-value is less than 0.05 and in step 1 automation of records was statistically significant ($p < 0.05$; $\beta = 0.837$). The results are presented in Table 4.21 as model 5.

Table 4.22: Results for Moderating Effect of Transformational Leadership

Model	Variable	B	ΔR^2	Tol.	VIF	Durbin-Watson
2	Constant	.788(.031)*				
	IA	.846(.031)*	.716	1.000	1.000	1.760
	TF	.484(.059)*		.237	4.22	
	IA.TF	.217(.031)*	.041	.237	4.22	
3	Constant	1.407(.032)*		1.000		1.540
	OS	.829(.032)*	.687	1.000	1.000	
	TF	.531(.047)*		.386	2.591	
	OS.TF	.380(.047)*	.056	.267	3.891	
4	Constant	2.023(.045)*				1.679
	IP	.837(.078)*	.712	.123	8.130	
	TF	.456(.056)*		.450	2.222	
	IP.TF	.967(.005)*	.090	.785	1.274	
5	Constant	1.567(.032)*				2.104
	AR	.438(.017)*	.701	.568	1.761	
	TF	.601(.056)*		.086	8.643	
	AR.TF	.326(.045)*	.040	.765	1.307	

Values of standardized regression coefficients, with standard errors in parenthesis

**p < 0.05.*

4.9.2.2 Moderating Effect of Transactional Leadership Style

For the moderating effect of transactional leadership style on the relationship between integrated approach and service delivery, the relevant null hypotheses was set as:

H_{06a}: Transactional leadership style does not significantly affect the relationship between integrated approach and service delivery.

Using the moderated multiple regression analysis, the results are summarized in Table 4.22. In the first step, the regression of integrated approach and transactional leadership on service delivery posted $R = 0.766$, $R^2 = 0.587$ and $(F(2, 275) = 852.055, p = 0.000)$. After the product term (IA*TS) was included in the equation. Table 4.21 for model 2 indicates that the inclusion of the product term (IA*TS) resulted in an R^2 change of 0.011, $(F(3, 274) = 149.636, p = 0.000)$. The results show presence of moderating effect. Thus transactional leadership style explains 1.1% variance in service delivery above the variance by integrated approach. Thus it can safely be concluded that hypothesis H_{06a} is not supported since $\beta \neq 0$ for the interaction term and p-value is less than 0.05. The results are presented in Table 4.23 as model 6.

To determine the moderating effect of transactional leadership style on the relationship between online service and service delivery, the relevant null hypothesis was postulated as:

H_{06b}: Transactional leadership style does not significantly affect the relationship between online service and service delivery.

In step one of the hierarchical regression analysis for online service and transformational leadership on service delivery, the results were as follows: $R = 0.526$, $R^2 = 0.277$ and $(F(2, 275) = 146.617, p = 0.000)$. In the second step when the interaction term OS*TS was included in the equation, it resulted in an R^2 change of 0.020, $(F(3, 274) = 124.508, p = 0.000)$. The results show presence of moderating effect. Put differently, the moderating effect of transactional leadership style explains 2.0% variance in service delivery above

the variance by online service. Thus hypothesis H_{06b} is not supported since $\beta \neq 0$ and p-value is less than 0.05. The results are presented in Table 4.22 as model 7.

Furthermore, to determine the moderating effect of transactional leadership style on the relationship between interactive participation on service delivery, the relevant null hypothesis was stated as follows:

H_{06c}: Transactional leadership style does not significantly affect the relationship between interactive participation and service delivery.

Table 4.21 shows that for step one of the analysis, $R = 0.437$, $R^2 = 0.191$ and $(F(2, 275) = 348.629, p = 0.000)$. In the second step, when the product term (IP*TS) was included in the equation, resulted in an R^2 change of 0.012, $(F(3, 274) = 18.760, p = 0.002)$. The results show presence of moderating effect. To put it differently, the moderating effect of transactional leadership style explains 1.2% variance in service delivery above the variance by interactive participation scores. Thus, hypothesis H_{06c} is not supported since $\beta \neq 0$ and p-value is less than 0.05 and in step 1 interactive participation was statistically significant. The results are presented in Table 4.23 as model 8.

Lastly, to determine the moderating effect of transactional leadership style on the relationship between automation of records and service delivery, the relevant null hypotheses postulated was:

H_{06d}: Transactional leadership style does not significantly affect the relationship between automation of records and service delivery.

Results in Table 4.21 that for step one of the analysis, $R = 0.647$, $R^2 = .436$ and $(F(2, 275) = 919.114, p = 0.000)$. In the second step, when the product term (AR*TS) was included in the equation, resulted in an R^2 change of 0.009, $(F(3, 274) = 950.982, p = 0.000)$. The results show presence of moderating effect. Thus transactional leadership style explains 0.9% variance in service delivery above the variance by automation of records. Thus it was concluded that hypothesis H_{06d} is not supported since $\beta \neq 0$ and p-

value is less than 0.05 and in step 1 automation of records was statistically significant. The results are presented in Table 4.23 as model 9.

Table 4.23: Results for Moderating Effect of Transactional Leadership Style

Model	Variable	B	ΔR^2	Tol.	VIF	Durbin-Watson
6	Constant	.145(.024) *				1.538
	IA	.240(.091) *	.587	.257	3.891	
	TS	.452(.103) *		.356	2.809	
	IA.TS	-.167(.083) *	.011	.116	8.621	
7	Constant	.209(.047) *				1.673
	OS	.618(.046) *	.277	.274	3.650	
	TS	.971(.105) *		.301	3.322	
	OS.TS	-.402(.101) *	.020	.528	1.894	
8	Constant	.912(.038) *				2.013
	IP	.217(.137) *	.437	.167	5.988	
	TS	.573(.130) *		.403	2.481	
	IP.TS	-.560(.017) *	.012	.271	3.690	
9	Constant	.387(.101) *				1.908
	AR	.891(.106) *	.436	.367	2.747	
	TS	.52(.103) *		.278	3.597	
	AR.TS	-.967(.071) *	.009	.750	1.333	

Values of standardized regression coefficients, with standard errors in parenthesis

**p < 0.05.*

Table 4.24: Summary of the Hypotheses Tests Results

Statements	Results
Ho ₁ : Integrated approach has no significant effect on service delivery.	Rejected H ₀
Ho ₂ : Online service has no significant effect on service delivery.	Rejected H ₀
Ho ₃ : Interactive participation has no significant effect on service delivery.	Rejected H ₀
Ho ₄ : Automation of records has no significant effect on service delivery.	Rejected H ₀
Ho _{5a} : Transformational leadership does not moderate the relationship between integrated approach and service delivery	Rejected H ₀
Ho _{5b} : Transformational leadership does not moderate the relationship between online service and service delivery	Rejected H ₀
Ho _{5c} : Transformational leadership does not moderate the relationship between interactive participation and service delivery	Rejected H ₀
Ho _{5d} : Transformational leadership does not moderate the relationship between automation of records and service delivery	Rejected H ₀
Ho _{6a} : Transactional leadership does not moderate the relationship between integrated approach and service delivery	Rejected H ₀
Ho _{6b} : Transactional leadership does not moderate the relationship between online service and service delivery	Rejected H ₀
Ho _{6c} : Transactional leadership does not moderate the relationship between interactive participation and service delivery	Rejected H ₀
Ho _{6d} : Transactional leadership does not moderate the relationship between automation of records and service delivery	Rejected H ₀

4.10 Discussion of Results

The study examined the effect of e-government on service delivery in the public service of Kenya. Further, the study explored the moderating role of leadership styles between e-government and service delivery. The key findings as they relate to the objectives and hypotheses are discussed in details against the prism of findings in extant literature in this section.

The first hypothesis (H₀₁) stated that there is no significant effect of integrated approach on service delivery. The study found a positive and significant effect and the hypothesis was therefore rejected. The results support findings by Tamara and Amer (2010) that ability of diverse computing systems possessed and operated by different government ministries work in harmony across all ministerial boundaries to enhance service delivery.

According to Tamara and Amer (2010) e-government is a virtual world of the government which has a dynamic mixture of activities that come together seamlessly. This means the ability of different agencies to interact and conduct transactions in an automated approach. In Huduma Centres, the findings showed that integrated service approach which is basically an incorporated platform enhanced the interaction between governmental institutions and customers under one roof. The exchange is enhanced on the existence of computing systems that are maintained and managed by different government ministries that interact together across boundaries seamlessly.

Further, Zuhoor *et al.* (2014) states that interoperability which in this study is labeled as integrated approach reduces or eliminates the problems of islands of automation. It enables business processes to flow from one application to another. Integrated approach enables one system to work with another simultaneously fashion with the intention to transmit and also information.

So from these facts all together, this study can draw a conceptual rule of e-government that e-government succeeds in giving better service delivery if and only if existing computing systems are integrated. This is given credence by the assertion of Al-Khoury (2013) that the lack of interoperability is the most challenging problem for governmental ministries

It is worth noting that NPM theory which is a radical modernization philosophy has an effect on integrated service delivery approach by promoting private sector ethos of quality, efficiency and professionalism. The net effect has influenced attitudinal change, commitment, ethics and professionalism which are characteristics associated with the private sector. The integrated service approach that operates at Huduma Centres is about seamless services devoid of the administrative bureau-pathologies such as indiscipline, lethargy, corruption and bureaucracy thereby reducing complexity and improving coordination of service delivery. Cross-agency initiatives can lead to high-value services which provide efficiency benefits for citizens and the government. Scope for cross-agency initiatives exists where several services are closely related – that is, where information needs to be gathered from more than one agency.

The second hypothesis (H₀₂) stated that there is no significant effect of online service on service delivery. This was rejected because the relationship was found to be positive and significant. Studies have provided some evidence. This is in line with the assertion by Zuhour et al. (2014) that e-government offers a new electronic channel which customers and government ministries can interact with one another without constrictions and thereby improving government effectiveness. By being able to conduct most services online, the Huduma centers are able to overcome the geographical distance barriers and as a result enhance service delivery.

A review of the research reveals that e-government, has brought about a revolution in the quality of service delivered to the citizens. As the findings indicate, online service at Huduma Centres improve the efficiency and communication between government agencies and their constituents by providing access to information and services

conveniently, faster and devoid of intermediaries. This is supported by Monga, (2008) who states that e-government simplifies procedures; enhances record management; reduces corruption, eliminates inefficient processes and reduces bottlenecks, improves attitude and behavior of employees.

In addition, Gilbert et al. (2004) stated that online services or electronic service delivery attracts customers due to its convenience speed of delivery, reliability, enjoyment and ease of use. They further argued that online services contribute to avoidance of intermediaries, errors control, convenience, cost, and time saving.

The use of technology by the private sector has put pressure on public service to serve citizens electronically to keep in tandem with the environmental changes and in so doing improve service delivery. Online services enable customers undertake transactions easily, conveniently and accessibly. Both the NPM and the open systems theories underpin this e-government construct. The private sector values are clearly discernible in the operations of e-government in Huduma Centres. Similarly, the adaptation by the government to embrace technology and specifically to adopt e-government demonstrates the use of the systems theory. It is against this backdrop that the concept of Huduma Centre was built as a panacea for poor service delivery by the public service in Kenya.

Thirdly, the study hypothesized that there is no significant effect of interactive participation on service delivery (H_{03}). This relationship was found to be positive and significant and therefore the null hypothesis was rejected. Interactive participation is characterized by the ability of the systems at the Huduma center to give the clients the opportunity to have a fist hand experience on how the system works and get feedback. These findings suggest that as the level of interactive participation is enhanced, service delivery is improved in tandem. The electronic government represents convenient and reliable services with lower compliance costs as well as higher quality and value.

According to Zuhoor et al. (2014) some of the causes of poor service delivery include inadequate public participation. The results augments findings by Monga (2012) that poor service delivery is positively related to inadequate citizen participation. While e-government helps in better delivery of government services to citizens, other scholars found e-government to improve communication and interactions between government and citizens (Zuhoor et al., 2014). E-government also empowers citizens through access to information. The findings of this study are consistent with Tamara and Amer (2010)) who found a positive and significant relationship between quality services and citizen engagement.

The CSDT theory is about facilitation and understanding of e-government systems. This theory calls for investment and participation by government in e-government. The combination of ICTs and citizen participation will create an e-government system that is also influenced by both the internal and external environments. It does not only depend on the resources available, but also relates to the government support to develop it. It also indicates that overall external environment (economy, democracy, education, Internet usage, and peer pressure) does affect e-government development. The combination of all factors including the NPM theory, CSDT theory, and Systems theory contribute to the success of e-government. Huduma Centres is a flagship project that is geared towards public service transformation in Kenya.

As per the fourth hypothesis (H₀₄), the positive and significant relationship between automation of records and service delivery are in tandem with the results of a study by Zuhoor et al. (2014) who found that many governments across the world started their own initiatives to use computing systems to offer a new electronic channel by means of which citizens, and government ministries can interact with one another through automating public services which can allow citizens to more easily access all kinds of government services in an automated way that are unconstrained thereby improving government efficiency and effectiveness.

This results are also consistent with the findings of Monga (2008) that use of information technology is potentially capable of changing government organizational structures and business processes and, if implemented correctly, of producing substantial organizational, technical, and business benefits. In addition, the gains noted contribute towards less time in transaction, fewer intermediaries; reduced trips to government offices, which reduces travel cost for citizens; improved access to government offices; more authentic information and documents (Bhatnagar, 2003).

Automation of records as seen in the findings enhances service delivery through management of accurate and reliable records, easily retrieved records, reducing reliance on paper and the inconvenience of paper record keeping. This improves access to public information. The electronic government offers the potential to significantly increase access to information and services. All these is in line with the postulates of NPM theory, CSDT theory and System theory which underpinned the study.

Lastly, hypotheses H_{5a}, H_{5b}, H_{5c}, H_{5d}, and H_{6a}, H_{6b}, H_{6c}, H_{6d} tested the moderating effect of leadership styles on the e-government-service delivery link. The results indicated that both transformational and transactional leadership styles moderated the relationship between the e-government constructs (integrated approach, online service, interactive participation and automation of records) and service delivery.

In the results, regression coefficients of the interactive terms of transformational and the e-government constructs of integrated approach, online service, interactive participation and automation of records were positive while the inclusion of the interactive terms explained additional variation in service delivery as captured by the ΔR^2 . This means that transformational leadership has an enhancing effect on the e-government-service delivery link. Thus, besides the contribution of e-government towards the improvement of service delivery as indicated by earlier results, when the managers at the Huduma centers use transformational leadership, the level of service delivery is bound to be further enhanced.

The results are in agreement with Zuhoor et al. (2014) who maintain that the role of a transformational leader is to inspire and create followers who are also self-leaders. This makes the followers be adept in service delivery. Tamara and Amer (2010) described transformational leadership as a process of directing behavior, thoughts and attitudes of others towards the accomplishment of a common objective. In addition, transformational leadership position entails visualizing clearly the mission, making commitment to the mission and to the followers, inspiring trust in followers to accomplish the mission and assuming responsibility leading to enhanced service delivery.

For transactional leadership style, the regression coefficients of the interactive terms of transactional leadership and the e-government constructs of integrated approach, online service, interactive participation and automation of records were negative while the inclusion of the interactive terms explained additional variation in service delivery as captured by the ΔR^2 . This means that transactional leadership has a buffering effect on the e-government-service delivery link. Thus, besides the contribution of e-government towards the improvement of service delivery as indicated by earlier results, when the managers at the Huduma centers use transactional leadership, the level of service delivery is bound to decrease at the Huduma Centre.

This is in line with the assertion by Zuhoor et al. (2014) who posit that unfortunately, transactional leadership fails to positively utilize the merit, talents, and skills in public service to meet the challenges of the 21st century. It also fails to empower the followers by creating an enabling process that increases motivation, commitment, and satisfaction.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter covers a summary of the findings obtained in the previous chapter, and how the results relate to both the theoretical underpinnings and empirical findings in the existing literature. This chapter also presents conclusions, implications, recommendations, and areas for further research.

5.2 Summary

The purpose of the study was to examine the effect of e-government on service delivery in the public service of Kenya. It also assessed the moderating effect of transformational and transactional leadership styles as the overriding gap. The study hypotheses were tested and the new public management theory, coherent service delivery theory, systems theory and full range theories were employed. Results from this study indicated that e-government affects service delivery hence, build up knowledge that is important in the public service of Kenya.

5.2.1 Effect of Integrated Services Approach on Service Delivery

The results reported integration of services have significantly influenced service delivery. The correlation analysis, indicated positive significant relationship between integrated service approach and service delivery while the regression analysis suggested that integrated approach had a positive significant effect on service delivery the finding implies that an improvement in integration of services is highly associated with high levels of service delivery at Huduma centers. Accordingly, integrated service approach enhances service delivery by expanding accessibility through interoperability and in so doing improve the interaction between governmental agencies to increase efficiency and productivity under one roof.

Therefore, integrated service delivery improves seamless services through sharing of information to service delivery. Bureaucracy and poor coordination of service delivery mechanisms have often been cited as key in the underperformance in the public service.

The findings are in tandem with of the postulates of the NPM theory that underpinned this study. The theory calls for a radical way in the manner public services operated by advocating for entrepreneurship spirit and performance orientation to meet customers' expectations. NPM is an efficient model that promotes efficiency and instils more of business ethos market principle such as speed, responsiveness and convenience. In addition, the postulates of systems theory especially on adaptation are in sync with the adoption of e-government for enhancement of public service delivery.

The Huduma centers have several desks/government departments whose services are interrelated and accessibly presented where transactions take place seamlessly. Therefore, integrated service delivery improves seamless services through interoperability and hence enriches efficiency, coordination, and productivity. Bureaucracy and poor coordination of service delivery have frequently been pointed out as major challenges in the public service.

5.2.2 Effect of Online Service on Service Delivery

The study found a positive and significant relationship between online service and service delivery. This means that the hypothesis H₀₂ was rejected. Accordingly, the results imply that the digitalization of the services at Huduma centers has enhanced the level of service delivery. The findings demonstrate that online service enhance service delivery and lead to ease of access to information, greater accessibility to services, cost savings and general efficiency.

The electronic delivery of government services, provides a connectivity to the government more easily using electronic means of communication. This results in better efficiency in public service delivery through faster dissemination of government

information, a reduction in corruption cases as accountability and transparency is increased. This derives from the limited physical contact between citizens and government service providers and their activities can be easily monitored. The interdepartmental exchange of information and merger of related services is enhanced between government agencies with an accompanying reduction of transaction costs, time, space and manpower.

Drawing on elements of the NPM theory of increasing efficiency and effectiveness that encourages modernization and efficiency in the Public Service, this theory seeks radical improvements in the public service delivery to realize reduced time in transaction; less inconveniences and fewer intermediaries. This complements the stated benefits of e-government that include efficiency, convenience and better accessibility of public services. In addition, the system theory is applicable in this construct since the e-government is a global phenomenon that is rapidly being adopted by governments to improve service delivery.

5.2.3 Effect of Interactive Participation on Service Delivery

Regression results indicated that interactive participation had a positive significant effect on service delivery. This meant that interactive participation enhances service delivery. The Huduma Centre concept is premised on the idea of one stop shop service that acts as a useful point of interaction with government to deliver informational components of public services in digital form. Some examples of interactive services are: requests for public documents, requests for legal documents and certificates, issuing permits and licenses, online tax payment, payment of online services. In addition, this construct will promote two-way communication interaction, public information and feedback. All these helps in providing the improvement in delivery of service thus achieving the characterization of e-government in terms of increased responsiveness, productivity, accountability, and transparency.

Therefore, the Cohesive Service Delivery Theory (CSDT) espoused in this study states that the theory is about understanding, supporting and facilitation of ICT to explain more effectively a service delivery system. For example, the combination of public participation, e-government system and sufficient government resources can lead to a 70% probability of service delivery. The CSDT is therefore a new theory in understanding and attempting to solve the service delivery issues and hence supports government transformation by improving the way government functions and delivers services to its citizens by enhancing efficiency, effectiveness and participation. This theory therefore can facilitate the realization of e-government objectives.

5.2.4 Effect on Automation of records on Service Delivery

Regression results indicated that automation of record had a positive significant effect on service delivery. This implies that automation of records does enhance service delivery. Automated records facilitate the free flow of records ensure that information is available rapidly where and when it is needed and help the users to do their jobs better and more easily. Using retrieval tools such as databases and indices, it possible to have faster access to the information than the traditional systems. Digitizing the files makes them permanent, easier to back up and far more convenient to manage

The findings support the assertion of the NPM on re-engineering or re-inventing of government. The underlining tenets of NPM are efficiency and performance enhancing measures; cost-reduction; setting benchmarks and targets. Automated records can ensure timely generation and filing of documents and records and in so doing improve collaboration both internally and externally. Being able to easily find information and knowledge from indexed content enhances improved decision making and reduce the amount of time lost looking for information. Thus, automation brings cost reduction, productivity, availability, reliability, performance and underpin e-government and service delivery, help to demonstrate accountability and transparency.

5.3 Conclusions

From the study results, two conclusions were drawn. First, e-government is positively and significantly affects service delivery in the public service. The constructs of e-government that comprised of integrated service delivery, online service, automation of records and interactive participation implemented at the Huduma Centres have the net effect of facilitating services devoid of administrative problems and pains such as circumvention, sloth and corruption. Secondly, transformational and transactional leadership styles enhanced and buffered the relationship between e-government and service delivery respectively.

5.4 Recommendations of the Study

The study recommends that the government should initiate a deliberate plan to entrench the integrated service delivery approach in the public service to enhance service delivery. This will enable the government break the silo mentality among the agencies, improve communication, enhance information sharing, remove boundaries between agencies and provide seamless service under a single roof to deliver one government. The expected results would be faster and convenient services. Thus, the provision of seamless service will make government much more approachable and lead to high-value services. Thus interagency support should be enhanced through high levels of collaboration, cooperation, and service consistency. This study recommends that government should build capacity of all employees in the public service by equipping them with the requisite skills in information communication technology. This will enable them to run the e-government adeptly.

It is recommended that government and its agencies provide online platforms for quality service delivery. Online service delivery creates a user friendly environment and provides timely service delivery. Further, it enhances better and reliable transactions with no intermediaries who slow down processes. In addition, it reduces unethical practices such queue jumping, manipulation or even corruption.

Equally, it is recommended that interactive participation be inculcated into public service to enhance service delivery. Through interactive participation, feedback from the public has the net effect of indicating the areas of improvement thus enhance service delivery in the public service. With respect to ease of decision making, the interactive nature of services at the Huduma centers gives more elbow room for faster decision making.

Also, the study recommends that there is need to automate transaction records in the public service so as to bolster service delivery. Automation of records enhances ease of retrieval and accessibility is improved. With automated records, sharing of the same across the government agencies is achieved with ease.

Finally, based on the conclusion that transformational and transactional leadership styles enhanced and buffered the relationship between e-government and service delivery respectively, there is need for Huduma Centre managers should pay extra attention to the use of transformational leadership style that positively affects service delivery. The buffering effect of transactional leadership on the relationship between e-government and service delivery indicates that its very tenets of contingent reward, management by exception- passive and management by exception active do not resonate well with the employees in the public service. This study therefore recommends that the managers by extension government functionaries in the public service should shy away from using this type of leadership.

5.4.1 Policy and Practice Recommendations

The results suggest a series of practice and policy recommendations that need to be considered. The study therefore suggests deliberate formulation of policy framework be developed to further entrench e-government efforts in the public service of Kenya. This can be done in consideration of the following; the need to increase the number of services offered in Huduma centres, capacity building of the employees, creation of public awareness, creation of more Huduma centres, and allocation of resources to

support e-government in the centres. For practical purposes, there is need to enhance the collaboration between the back office (mother departments) and Huduma centres to avoid complexities such as delays.

A policy be formulated to decentralize Huduma services in the counties without making referrals to headquarters and mother ministries, departments or agencies in Nairobi. This will result in prompt decision making and thus better service delivery in line with article 232 of the constitution of Kenya, 2010 on public service.

5.5 Suggested Areas for further research

Several limitations are associated with the present study. First, since this study focused only on Huduma centers, studies should be extended to other areas in the public service not represented in the Huduma centre. Also this study can be extended to others contexts and industries such as: county governments, banking, hospitality, security and private sector institutions. It would provide more insight to understand how the transformational and transactional leadership style mediates the relationship between e-government and service delivery in the different contexts.

Secondly, this study used cross-sectional research design which means that the constructs were measured from a static perspective. Future studies should use a longitudinal study which would provide more insight. Finally, the present study used data drawn from the same respondents at a single point in time using the same collection method. Self-rating can provide more insight on how the respondents view themselves. The service consumers can be used as respondents. This will minimize single source bias.

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APPENDICES

Appendix I: Questionnaire

My name is Abdi M. Hassan, a Doctor of Philosophy in Leadership and Governance student at Jomo Kenyatta University of Agriculture and Technology. I am undertaking a study on the Effects of E-government on service delivery in the public service of Kenya. Kindly, take your time to respond to the following questions whose responses will be meant for research purposes and will be kept confidential.

Thank you.

Abdi M. Hassan

Section A: Background Information

Please indicate your Gender

Female [] male []

Kindly indicate your age bracket

Below 30 [] 31-40 [] 41-50 [] 51-60 []

Indicate your Level of Education.

Phd [] Masters [] Degree [] Diploma [] Others e.g. CPA CPS []

Section B: e-Government

Integrative Approach

This section helps you describe integrative approach to services offered at the Huduma center as you perceive it. Please answer all items by circling the appropriate response using the key 7: Strongly Agree, 6: Agree, 5: Slightly Agree, 4: Neutral, 3: Slightly Disagree, 2: Disagree, 1: Strongly Disagree.

	The services offered at the Huduma Centre:							
IA1	Enable the clients to get what they need in one roof	1	2	3	4	5	6	7
IA2	Has enhanced image of the government.	1	2	3	4	5	6	7
IA3	Offers less time in completing transactions	1	2	3	4	5	6	7
IA4	The services are not clearly marked	1	2	3	4	5	6	7
IA5	Has increased accountability	1	2	3	4	5	6	7
IA6	Has reduced costs of multiple services	1	2	3	4	5	6	7
IA7	Has enhanced service standards	1	2	3	4	5	6	7
IA8	Has not given value for money/time	1	2	3	4	5	6	7
IA9	Related services are linked	1	2	3	4	5	6	7
IA10	Has not increased efficiency of staff							

Online Service This section helps you describe e-services offered at the Huduma center as you perceive it. Please answer all items by circling the appropriate response using the key 7: Strongly Agree, 6: Agree, 5: Slightly Agree, 4: Neutral, 3: Slightly Disagree, 2: Disagree, 1: Strongly Disagree.

	The services offered at the Huduma Centre:							
OS1	Is faster	1	2	3	4	5	6	7
OS2	Is efficient	1	2	3	4	5	6	7
OS3	Services are not accessible easily	1	2	3	4	5	6	7
OS4	It is easy to upload documents using the e-services	1	2	3	4	5	6	7
OS5	The services are a source of convenience to the applicants	1	2	3	4	5	6	7
OS6	Has tracking of the application/request	1	2	3	4	5	6	7
OS7	Instructions are clear	1	2	3	4	5	6	7
OS8	Required documentation is clear	1	2	3	4	5	6	7
OS9	Enables one to access information	1	2	3	4	5	6	7

Automation of Records

This section helps you describe e-administration services offered at the Huduma center as you perceive it. Please answer all items by circling the appropriate response using the key 7: Strongly Agree, 6: Agree, 5: Slightly Agree, 4: Neutral, 3: Slightly Disagree, 2: Disagree, 1: Strongly Disagree.

	At the Huduma Centre:							
AR1	All the information is automated	1	2	3	4	5	6	7
AR2	There is no paper work involved	1	2	3	4	5	6	7
AR3	Automaton has not enhanced retrieval of information	1	2	3	4	5	6	7
AR4	Has made response to referrals easier	1	2	3	4	5	6	7
AR5	It has enhanced communication.	1	2	3	4	5	6	7
AR6	Has not improved reliability of service	1	2	3	4	5	6	7
AR7	It has improved office efficiency	1	2	3	4	5	6	7
AR8	Has not enhanced timely services	1	2	3	4	5	6	7
AR9	Has privacy of client information	1	2	3	4	5	6	7

Interactive Participation

This section helps you describe how interactive the services offered at the Huduma center as you perceive it. Please answer all items by circling the appropriate response using the key 7: Strongly Agree, 6: Agree, 5: Slightly Agree, 4: Neutral, 3: Slightly Disagree, 2: Disagree, 1: Strongly Disagree.

	At the Huduma Centre:	1	2	3	4	5	6	7
IP1	Customer opinion is valued	1	2	3	4	5	6	7
IP2	There is a feedback mechanism in place	1	2	3	4	5	6	7
IP3	Customers opinion is asked before implementing new systems	1	2	3	4	5	6	7
IP4	Customer processes are not user friendly	1	2	3	4	5	6	7
IP5	The customer is satisfied with feedback mechanisms	1	2	3	4	5	6	7
IP6	The customer is consulted on service improvement	1	2	3	4	5	6	7
IP7	The centre acts on customer recommendations	1	2	3	4	5	6	7
IP8	Customer service desk is easily accessible	1	2	3	4	5	6	7
IP9	The customer has no access to the service delivery point	1	2	3	4	5	6	7

Section C: Service Delivery

This section helps you describe service delivery offered at the Huduma center as you perceive it. Please answer all items by circling the appropriate response using the key 7: Strongly Agree, 6: Agree, 5: Slightly Agree, 4: Neutral, 3: Slightly Disagree, 2: Disagree, 1: Strongly Disagree.

	In thisHuduma Centre:	1	2	3	4	5	6	7
SD1	The staff are helpful	1	2	3	4	5	6	7
SD2	Services are convenient	1	2	3	4	5	6	7
SD3	Services are reliable	1	2	3	4	5	6	7
SD4	The services offered are seamless	1	2	3	4	5	6	7
SD5	Has reduced distances to access service centres	1	2	3	4	5	6	7
SD6	There is no complaint feedback mechanism	1	2	3	4	5	6	7
SD7	There is improved speed of service	1	2	3	4	5	6	7
SD8	There is ease of access to information	1	2	3	4	5	6	7
SD9	There is reduced corrupt tendencies	1	2	3	4	5	6	7
SD10	Cost of availing services is low	1	2	3	4	5	6	7
SD11	The services are not customer friendly	1	2	3	4	5	6	7
SD12	Complaint are attended to							

Section D: Leadership Style

This section helps you describe the management's leadership style as you perceive it. Respond to the following question items, by circling your answer, using the key: 1- Never, 2-Rarely, 3-Occasionally, 4-Frequency, 5-Very Frequently, 6-Almost Always 7- Always

	The Manager:							
TF1	Make us feel good to be around him/her	1	2	3	4	5	6	7
TF2	Does command complete faith from employees	1	2	3	4	5	6	7
TF3	Others are proud to be associated with him/her	1	2	3	4	5	6	7
TF4	Express what we could and should do	1	2	3	4	5	6	7
TF5	Provides appealing images about what we can do	1	2	3	4	5	6	7
TF6	Help others find meaning in their work.	1	2	3	4	5	6	7
TF7	Provides new ways of looking at things	1	2	3	4	5	6	7
TF8	Enables one to look at old problems in new ways	1	2	3	4	5	6	7
TF9	Gets others to rethink ideas	1	2	3	4	5	6	7
TF10	Does help others develop themselves	1	2	3	4	5	6	7
TF11	Lets others know how he/she thinks they are doing	1	2	3	4	5	6	7
TF12	Gives personal attention those who seem rejected	1	2	3	4	5	6	7
TS01	Says the reward for doing a given assignment	1	2	3	4	5	6	7
TS02	Gets us to understand	1	2	3	4	5	6	7
TS03	Provides recognition when others reach their goals	1	2	3	4	5	6	7
TS04	When things are working, does not change	1	2	3	4	5	6	7
TS05	Says what others can get for what they accomplish							
TS06	Sates standards to carry out their work							

Appendix II: Table for determining sample size from a given population

N	S								
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	346
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	351
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	191	1200	291	6000	361
45	40	170	118	400	196	1300	297	7000	364
50	44	180	123	420	201	1400	302	8000	367
55	48	190	127	440	205	1500	306	9000	368
60	52	200	132	460	210	1600	310	10000	373
65	56	210	136	480	214	1700	313	15000	375
70	59	220	140	500	217	1800	317	20000	377
75	63	230	144	550	225	1900	320	30000	379
80	66	240	148	600	234	2000	322	40000	380
85	70	250	152	650	242	2200	327	50000	381
90	73	260	155	700	248	2400	331	75000	382
95	76	270	159	750	256	2600	335	100000	384

Key: N is population size

S is sample size

Adopted from: Krejcie, *et al.*,(1998)

Appendix III: Normality Plots

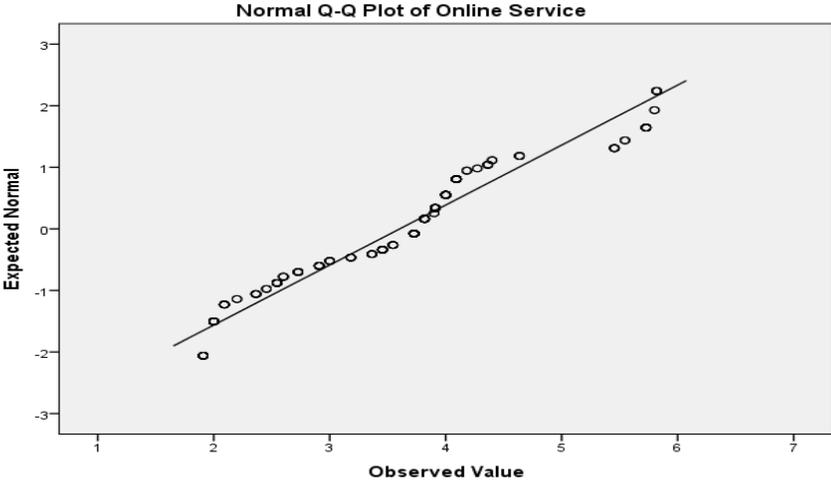


Figure I: Normality Plot for online Service

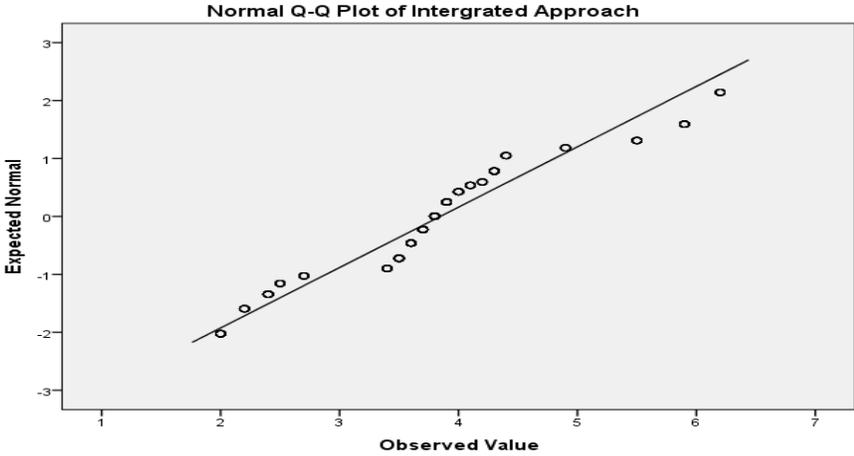


Figure 2: Normality Plot for Integrative Approach

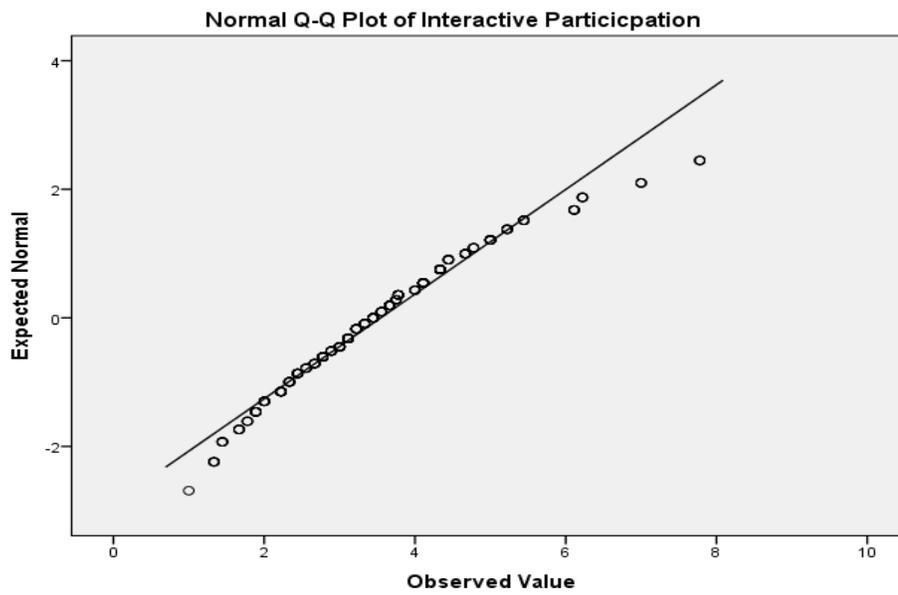


Figure 3: Normality Plot for Interactive Participation

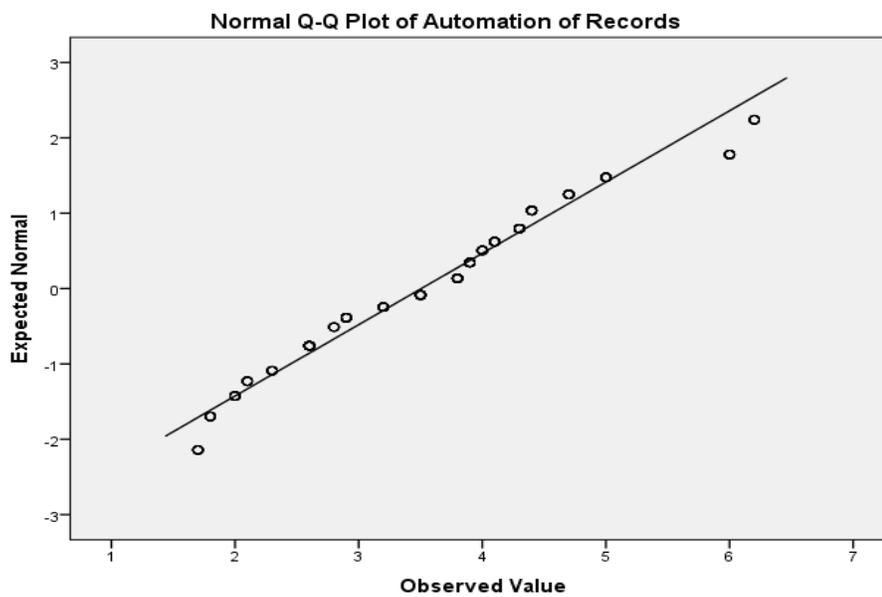


Figure 4: Normality Plot for Automation of Records



Figure 5: Normality Plot for Service Delivery

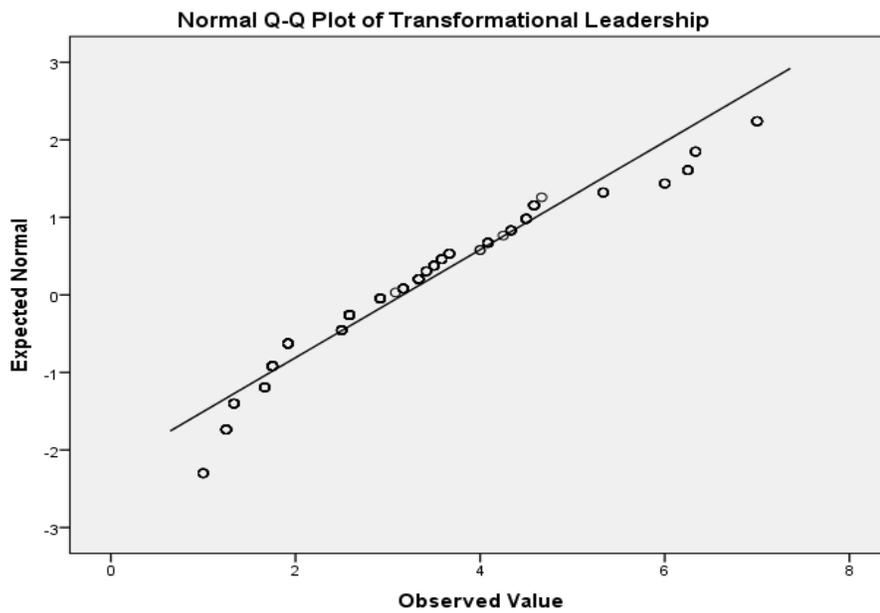


Figure 6: Normality Plot for Transformational leadership

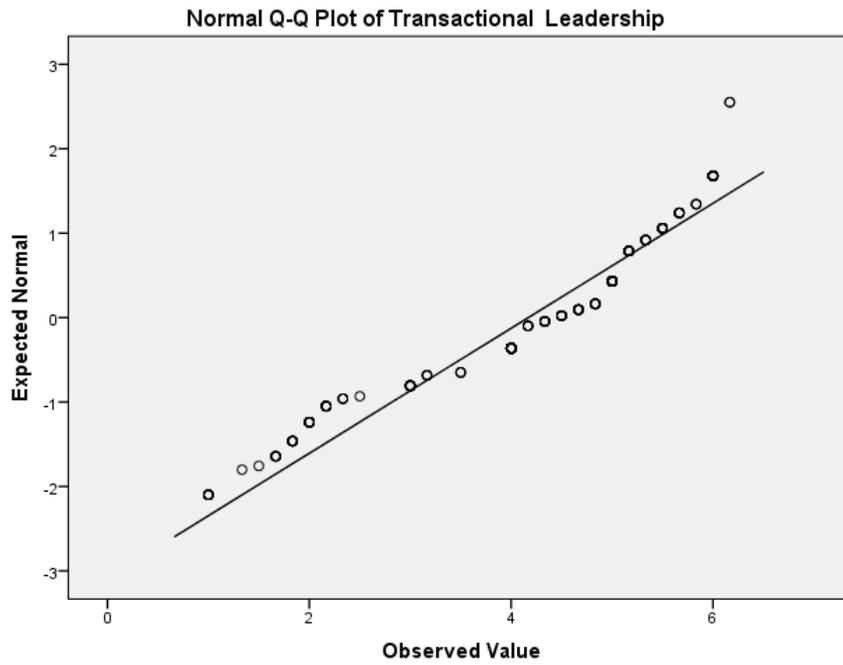


Figure 7: Normality Plot for Transactional leadership

Appendix IV: Target Population

	Centre	No of Employees	%	Sample Size
1	Baringo	88	1.7	6
2	Bungoma	132	2.3	9
3	Busia	132	2.3	9
4	Embu	132	2.3	9
5	Garissa	62	1.1	5
6	Homabay	128		5
7	Isiolo	62	1.1	
8	Kajiado	132	2.3	9
9	Kakamega	132	2.3	9
10	Kericho	132	2.3	9
11	Kiambu	132	2.3	9
12	Kilifi	88	1.7	6
13	Kirinyaga	128	2.3	9
14	Kisii	132	2.3	9
15	Kisumu	132	2.3	9
16	Kitui	124	2.2	9
17	Kwale	128	2.3	9
18	Laikipia	62	1.1	5
19	Lamu	88	1.7	6
20	Machakos	132	2.3	9
21	Makueni	88	1.7	6
22	Marsabit	62	1.1	
23	Meru	132	2.3	9
24	Migori	88	1.7	6
25	Mombasa	132	2.3	9
26	Muranga	132	2.3	9
27	Nairobi City	132	2.3	9
28	Nairobi City	132	2.3	9
29	Nairobi City	132	2.3	9
30	Nairobi City	132	2.3	9
31	Nairobi City	132	2.3	9
32	Nakuru	132	2.3	9
33	Nandi	128	2.3	9
34	Narok	128	2.3	9
35	Nyamira	132	2.3	9
36	Nyandarua	128	2.3	9
37	Nyeri	132	2.3	9
38	Samburu	62	1.1	5
39	Siaya	62	1.1	5
40	Taita -Taveta	62	1.1	5
41	Tharaka Nithi	128	2.3	9
42	Trans Nzoia	128	2.3	9
43	Turkana	62	1.1	5
44	Uasin Gishu	132		
45	Wajir	62	1.1	5
46	West Pokot	62	1.1	5
47	ELkeyo Marakwet	128	2.3	9
48	Tana River	62	1.1	5
49	Mandera	62	1.1	5
50	Kajiado	132	2.3	9
51	Vihiga	132	2.3	9
52	Trans Nzoia	128	2.3	9
	Total	5,756	100	361

Source: Huduma Centre Secretariat Website 2016