

**E-GOVERNMENT STRATEGY AND SERVICE DELIVERY IN  
NAIROBI CITY COUNTY, KENYA**

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## DECLARATION

### Declaration by candidate

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

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This Research Project has been submitted for Examination with my Approval as University Supervisor.

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## **DEDICATION**

I dedicate this work in honour of my late sister Rose Syokau Mbuvi (1978 – 2015) who always motivated and mentored me throughout my education life, my daughter Raizel who gives me the reason to work hard and be the best in everything, my family and all those who supported and encouraged me in completion of this project. Thank you and May God bless you.

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## **ABBREVIATION AND ACRONYMS**

<b>APPS</b>	Application
<b>DEI</b>	Digital Evaluation Index
<b>EGDI</b>	E-Government Development Index
<b>GDC</b>	Government Data Centre
<b>GITS</b>	Government IT Services
<b>GOK</b>	Government of Kenya
<b>ICT</b>	Information Communication Technology
<b>ICTA (Kenya)</b>	Information and Communication Technology Authority (Kenya)
<b>ID</b>	Identity Card
<b>ITU</b>	International Telecommunication Union
<b>IFMIS</b>	Integrated Financial Management Information System
<b>OGD</b>	Open Government Data
<b>KTCIP</b>	Kenya Transparency and Communication Infrastructure Project
<b>MIS</b>	Management Information Systems
<b>NCC</b>	Nairobi City County
<b>SPSS</b>	Statistical Package for Social Sciences
<b>TAM</b>	Technology Acceptance Model
<b>WCAG</b>	Web Content Accessibility Guidelines

## **OPERATIONAL DEFINITION OF TERMS**

### **Digital Evaluation Index**

Refers to a comparative framework built to enable pattern recognition into how internet technology is transforming market places.

### **E-government**

Refer to the use of information and communication technologies (ICT) in the public sector to drive efficiency, effectiveness, transparency and transform its operations in delivery of services to the citizens and businesses.

### **E-government Development Index**

Refer to the measure of the willingness and capacity of national administrations of all 193 United Nations Member States to use information and communication technologies to deliver public services based on e-government, namely: provision of online services, telecommunication connectivity and human capacity.

### **Revenue Management Automation**

Use of ICT integrated applications to monitor control and maximise revenue collection.

### **Service**

Refer to a product or an activity that meets the needs of a user or can be applied by a user.

### **Service Delivery**

Refer to a continuous, cyclic process for developing and delivering user focused services which are effective in terms of timeliness dependability (reliability), user friendliness, usefulness and credibility (trustworthiness).

### **Stakeholders**

They are people or a group who have interest or concern in an organisation and can be affected by the organisations actions, policies and objectives. In this study they are employees of the Nairobi City County government

## ABSTRACT

County Governments deliver an estimated 80 per cent of local public services and are located in and form part of the communities they serve. In order to effectively meet the ever rising demand for better services by the public, County Governments are transforming service delivery through technological innovations enhanced by e-government to offer better management, greater use of shared data, reliable and efficient handling of routine transactions. The main purpose of this study was to investigate the influence of e-government strategy in service delivery in Nairobi City County, Kenya. Specific objectives of the study included examining the effect of revenue management automation on service delivery, exploring the level of e-government stakeholder's involvement and their influence on service delivery and lastly probing the level of e-government leadership support on service delivery in Nairobi City County, Kenya. The descriptive survey research design was employed to study a target population of 296 employees of 3 Nairobi City County Ministries located at the Nairobi City County Headquarters. Research data was collected by means of questionnaires administered to the sampled 165 employees of the Nairobi City County Ministries. The questionnaires contained both open and closed ended questions. Validity of the questionnaires was ensured through judgment of experts while reliability was established through test and re-test method during. The collected data was, edited, checked for completeness, coded, classified and entered into Statistical Package for Social Science (SPSS Version 22.0) for subsequent analysis. Regression analysis was used to measure the relationship between dependent and independent variables. The study concludes that e-government strategy has improved service delivery through online feedback platforms and legal and regulatory framework which ensures that online services are secure. The study found out that online transactions were secured, revenue was timely collected and back office and front office operations were automated. Additionally, the study concludes that Nairobi City County had ICT partnership trainings for ICT users on service delivery. The study also concludes that government stakeholder's involvement through ICT partnership trainings has been critical in ensuring effective service delivery. Finally the study concludes that NCC e-government leadership has been in the forefront in championing e-government strategy in service delivery through a clear shared ICT vision and allocating budget for ICT related research. Generally government influenced service delivery in terms of timeliness, usefulness in addressing citizen's needs and trustworthiness. The study recommends that there was need for NCC to come up with "design for all" ICT facilities and ICT accessibility champions to support ICT users on accessibility and usability issues. This study also recommends that all transactions done online needed to be backed up daily in an offsite environment for data safety, accessibility and privacy. The study further recommended that there was need for training and sensitization to ensure that e-government stakeholders were more versed with the e-government platforms and vision in order to create more awareness and ownership. Finally, the study recommends that county leadership needed to allocate and invest more resources in ICT and motivate stakeholders through appreciation, ICT trainings and engagements to ensure that they use ICT in services delivery.

# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 Overview**

This chapter contextualises research issues and culminates into the research problem. The specific areas covered in this chapter are background of the study, statement of the problem, objectives of the study, research questions, significance of the study, scope of the study, limitations of the study and organisation of the study.

### **1.2 Background of the Study**

Service delivery in public sector continues to be a major challenge which has prompted structural, systems and processes reforms in order to improve delivery of services and satisfy customer's needs. Among the major systems reform that has been adopted by many governments to address service delivery issues is e-government which has been applied in transforming internal and external relationships through information communication technology (ICT). The embrace of e-government has been pushed by many factors including; the development and availability of the technology, rising consumer expectations demands for access around the clock and faster response times, need for information by informed citizens and need for better coordinated and networked public services (Abdullah, 2008).

Globally, there is a wide disparity among regions and countries in their state of e-government development which is mainly influenced by the income level of a country, access to ICT infrastructures and ICT literacy(United Nations , 2014).According to the UN E-government Survey 2014 report, Europe (0.6936) continues to lead with the highest

regional E-Government Development Index (EGDI) followed by the America (0.5074), Asia (0.4951), Oceania (0.4086) and lastly Africa (0.2661). In Europe, the first milestone in e-government strategy was the launching of Lisbon Strategy by the European Council in March 2000 which aimed at making Europe a competitive knowledge-based economy by 2010 through simplification of bureaucracy in public services (Molnár, 2007). Later on, as a result of failure of the Lisbon strategy and the weakening of European Union global economic position, the European Union developed the European Information Society 2010 programme whose priorities included creation of information space without frontiers, ICT-based innovation and investment as well as social inclusion and a better quality of life (Reding, 2005). The programme centred on citizens inclusion, greater transparency and efficiency in the course of developing e-government. Among the leading countries in Europe in terms of e-government development includes France, Netherlands, United Kingdom and Finland (United Nations, 2014).

On the other hand in America, governments have customized their digital agenda through cloud computing, smart mobile devices, tablets and high speed networks to fit the needs and citizens demand. The government of Trinidad and Tobago, for instance have developed an online portal to facilitate business and trade thus transforming national industries, businesses dynamism and competitiveness. According to the United Nations (2014), the leading governments in America in e-government development include the United States of America (ranked 7<sup>th</sup> globally, Canada (ranked 11<sup>th</sup> globally) and Uruguay (ranked 26<sup>th</sup> globally).

In Asia, member countries have continued to rank higher in e-government development through support for broadband and mobile access, provision of online services, e-government leadership, inclusive e-participation policies, high literacy rates, developed

infrastructure, broad-ranging e-services and extensive open government data portals. In the United Nations E-government Survey 2014, five of the world's top 20 e-leaders were from Asia. They included Republic of Korea (ranked 1<sup>st</sup> globally), Singapore (ranked 3<sup>rd</sup> globally), Japan (ranked position 6<sup>th</sup> globally) and Israel (ranked 17<sup>th</sup> globally) and Bahrain (ranked 18<sup>th</sup> globally). The effectiveness of e-government in Korea whose success is attributed to strong government leadership, customer oriented services, IT governance and performance-based program management is widely acknowledged by the international community and various e-government systems are now being exported to other countries (Choong-Sik, 2015).

The development of e-government in Africa countries has been driven by several factors among them the growth of telecommunication sector and infrastructure which has increased usage of mobile technologies and related services, launching of mobile value-added services by both public and private sectors to support other sectors like banking, healthcare, and education among others. Among e-government leaders Africa include Tunisia (ranked 75<sup>th</sup> globally), Mauritius (ranked 76<sup>th</sup> globally), Egypt (ranked 80<sup>th</sup> globally), Seychelles (ranked 81 globally), Morocco (ranked 82<sup>nd</sup> globally) and South Africa (ranked 93<sup>rd</sup> globally) following closely behind. Kenya is ranked position 119 globally and position 9 in Africa with E-Government Development Index (EGDI) of 0.3805 (United Nations 2014). The development of e-government in Africa can be traced back in 1996 African ministers of planning and economic development adopted the Africa Information Society Initiative (AISII) which called for development and implementation of national policies and plans to promote ICT adoption throughout key economic sectors and national administration to improve effectiveness of government service delivery (Hafskin, 2009).

According to the 2013 Digital Evaluation Index (DEI), Kenya was ranked at position 49 with a score of 16.98 out of the 50 Countries which were analysed. Position number 1 was Singapore with a score of 56.21. In the DEI report, Kenya is categorised as “Watch Out” Country or a slowly advancing Country in terms of digital ecosystems progress. “Watch Out” Countries are said to have institutional uncertainty and a low commitment to reform (Chakravorti, Tunnard, & Chaturvedi, 2014). With the enactment of the new Kenyan Constitution in the year 2010 which brought in significant changes in the system of governance through devolution, expanded citizens’ rights and fundamental freedoms, e-government has been viewed as one of the most effective strategy in attaining some of the objectives of the Constitution. In particular, Article 6 (3) on reasonable access to public services in all parts of the Republic, Article 35 on the right to access information held by the state, Article 232 on the values and principles of public service (Kenya Law Reports, 2010) and other articles concerning accountability of public officers, transparency of Government and participation of citizens in government processes.

### **1.2.1 E-government Service Delivery in Nairobi City County**

The Nairobi City County (NCC) was established after the dissolution of the Nairobi City Council through the enactment of the Constitution of Kenya (2010) which created 47 counties in respect to devolved government structure. Like all the other Counties, NCC derives its mandate from Chapter 11 of the Constitution of Kenya, and its functions are further elaborated by the County Government Act 2012. The County's chief task is to provide and manage basic social and physical infrastructure services to the residents of Nairobi. In terms of social infrastructure, NCC is responsible for provision of assets that accommodate and support social services like education, medical facilities, transport services including parking, water and housing. In order to ensure that the Nairobi City

County economy is functional and productive, NCC has to develop the physical infrastructures such as transport network, sewerage and waste management disposal systems. Though high in terms of cost of investment, social and physical infrastructures are vital to any County's economic development and prosperity.

With a population of over 3 million, Nairobi City County is among the first Counties to embrace e-government through ICT-Led Transformation program that aimed at making the use of technology in improving service delivery and efficiency to the Nairobi City County citizens at the County headquarters and its satellite offices. Additionally, Nairobi City County and ICTA launched a personalised and user-friendly online platform <http://www.nairobi.go.ke> to offer easy, fast, secure and personalised services to Nairobi residents. The new site allows the citizens to access NCC services from anywhere and at any time over the internet using devices ranging from the most basic web-enabled cell phones, smart phones, laptops and tablets (ICTA, 2014). The new interface is a web-based citizen informational and service delivery portal which offers seamless integration with the NCC e-payment system and allows a secure channel for citizens to pay for county services (Kidero, 2014).

In 2015, Nairobi was named the most intelligent city in Africa for her efforts in taking conscious steps in creating broadband economy for its citizens, businesses and institutions through sensible, pro-growth government policy, a more diversified economy and innovation ecosystems for start-ups (Court, 2015).

### **1.3 Statement of the Problem**

Traditionally service delivery by Nairobi City County Government to the citizens has been characterized by inefficiency and ineffectiveness due to bureaucracy and un-

timeliness which in turn affected citizen's satisfaction. Unlike the private sector which emphasizes on efficiency in service delivery and customer satisfaction, public sector including Nairobi City County Government has been silent on service delivery and customer satisfaction.

In an effort to address the issue of service delivery, the Nairobi City County Government adopted the use private-sector and business approaches which are geared towards efficient and effective service delivery. Among the approaches adopted is e-government strategy through ICT-Led Transformation program whose aim is to transform service delivery citizens and ensure overall efficiency at the Nairobi City Headquarters and its satellite offices. Some of the government programs which have been introduced by the Nairobi City County include e-payments, e-revenue collection, and e-licensing among others. By facilitating two-way interaction, electronic governance has been hailed as a way to improve service delivery and responsiveness to citizens, in the long run generating greater public confidence in government (Raney, 2000).

Previous research conducted on the defunct Nairobi City Council has shown that the benefits of e-government on service delivery haven't been fully realised. A study on the "Impact of e-government technology in the city council of Nairobi" found out that there was need for government to sensitize its citizens on the values associated with e-government in order to realise its benefits. To ensure the success of e-government, users must be trained and involved at the development and implementation levels so that they understand how this initiative works (Kipyegon, 2012). The government also ought to reduce the level of bureaucracy and make enough resource allocation to ensure the success of this important transformative initiative. A research carried out in Nairobi City

by Nyambura (2015) on “whether Kenya’s new e-government platforms have helped to increase citizen engagement with the state - or is it all politics for show?” found out that despite Kenya having e-government platform 40% hadn’t tried the e-platforms because they were either unaware of them, lacked access to a computer/network, or had slow connectivity. The survey further showed that one third of Nairobi citizens had at some point engaged with a bureaucrat or public official through an online platform.

Unlike the defunct local authority which was under the Ministry of Local Government characterised by lack of autonomy, County Governments are independent entities established under the new Kenya Constitution which was promulgated in the year 2010. Therefore there is a need for a study that would investigate the issues raised by literature and explore the practical experience in Nairobi City County by investigating the extent to which e-government has influenced service delivery.

#### **1.4 Objectives of the Study**

The general objective of the study was to investigate the influence of e-government strategy on service delivery in Nairobi City County, Kenya.

The study sought to achieve the following specific objectives;

1. To examine the influence of revenue management automation on service delivery in Nairobi City County, Kenya.
2. To explore the influence of e-government stakeholders involvement on service delivery in Nairobi City County, Kenya.
3. To probe the influence e-government leadership support on service delivery in Nairobi City County, Kenya.

### **1.5 Research Questions**

The study was guided by the following questions;

1. How does e-government strategy influence service delivery in Nairobi City County, Kenya?
2. How does revenue management automation influence service delivery in Nairobi City County, Kenya?
3. How does e-government stakeholder's involvement influence service delivery in Nairobi City County, Kenya?
4. How does e-government leadership support influence service delivery in Nairobi City County, Kenya?

### **1.6 Significance of the Study**

The results of the study were expected to provide a framework which would assist County managers in implementation of e-government in County Governments. The County government officials in various County ministries would find the results beneficial in making policies that would be helpful in ensuring efficient and effective service delivery to the citizens and businesses. The study findings are expected to trigger further research to academicians and researchers and overall, the community would benefit from a knowledge based society.

### **1.7 Scope of the Study**

The study was carried out in Nairobi City County, Kenya and was confined to the influence of e-government strategy in service delivery in Nairobi City County, Kenya.

The study was concerned with the views of the employees of the three Ministries of the Nairobi City County Government. The findings of the study were expected to replicate what was happening in all the 47 County Governments in Kenya as they operated within the same Constitutional framework.

### **1.8 Limitations of the Study**

There are a number of limitations which may arise in a research of this nature. First, it should be noted that Nairobi City County Government is a political entity hence the respondents might be politically biased out of fear of political victimization.

Secondly, data on African cities, when collected, tends not to capture the complexity of urban reality. Any data used in this document likely has these limitations. Thirdly, due to limited timeframes and broad topic, this research document should be seen as a cursory, though well informed, exploration of the influence of e-government in transforming service delivery in Nairobi County, Kenya. Though the study findings was used to discuss County governments in general, the unique nature of Nairobi City County need to be appreciated.

### **1.9 Organization of the Study**

This project is structured as follows: the foregoing chapter one provides the research background, research objectives, significance of the study, scope, and the limitations encountered in the course of the study. Chapter two presents literature review on influence of e-government strategy on service delivery in Nairobi County, Kenya and a conceptual framework while Chapter three deals with the methodology employed in the study. Chapter four presents data analysis and presentation while chapter five presents summary, conclusions and recommendations of the study.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter summarizes the information from authors and researchers who have carried out research in the same field of study. The specific areas covered in this chapter are theoretical review, empirical review, and critical review of literature, research gaps and conceptual framework.

#### **2.2 Theoretical Review**

This study was anchored in four theories which are; Expectancy – disconfirmation theory, stakeholders theory, Technology Acceptance Model and Transformational leadership theory. These theories have been selected because of their explanations on service delivery in an information technological environment.

##### **2.2.1 Expectancy – disconfirmation theory**

Expectancy-disconfirmation theory (EDT) is of the view that satisfaction is determined by the level of discrepancy between the expectancy and perceived performance (Bhattacharjee, 2001). The theory adopted the idea that consumers' satisfaction is determined by product/service performance, customers' expectations before consumption, and the gap between performance and expectations. This theory has its roots in motivation theory that postulated that people are driven by the desire to satisfy their needs (Maslow, 1954) or that their behaviour was directed at the achievement of relevant goals. It was later conceptualised by Oliver (1977) to measure post-purchase customer

satisfaction from perceived quality of products or services. Satisfaction level is as a result of the difference between expected and perceived performance (Oliver, 1977).

Disconfirmation can either be positive or negative. Positive disconfirmation occurs if the customer is satisfied if the performance of product/service is equal to his/her expectations while negative disconfirmation occurs when the product/service performance is perceived to be below his/her expectation. On the other hand, the customer is said to be highly satisfied if the expectations exceed perceived performance. In technological innovation context, EDT explains how technology satisfaction is created as users form initial expectations or pre-usage beliefs about how technology will perform based on certain attributes of the technologies (Lankton & Macknight, 2012). This theoretic model was employed in this study to examine whether stakeholders expectations in terms of service delivery have been met while using e-government platforms.

### **2.2.2 Stakeholders Theory**

In order to drive a successful and sustainable business, the interests of customers, employees and other key stakeholders must be aligned to the interest of the business and go in the same direction. Stakeholder theory was first propounded by Freeman (1984) to suggest that the purpose of any business is to create as much value as possible for the stakeholders (Freeman E. R., 1984). Stakeholder's can either be narrowly defined as those groups who are vital to the survival and success of corporation or widely defined to include any group or individual who can affect or is affected by the corporation ((Freeman & Reed, 1983). Clarkson shared similar views with Freeman by defining stakeholders are persons or groups that have, or claim, ownership, rights, or interests in a corporation and its activities, past, present, or future. Such claimed rights or interests are

the result of transactions with, or actions taken by, the corporation, and may be legal or moral, individual or collective (Clarkson, 1995).

Other stakeholder theorists like Donaldson and Preston (1965) were of the view that stakeholder theory fell into three approaches: descriptive approaches, instrumental approaches and normative approaches. The main focus of descriptive approaches was the way business works today in terms of characteristics and behaviour of firms, how the firms are managed and the nature of the firm itself. The instrumental approach on the hand was concerned with the increased efficiency, better business performance and ultimately higher profits. Finally the normative approach was concerned moral and ethical issues – each stakeholder group has intrinsic value and no group is more or less important than the other (Donaldson & Preston, 1995).

Stakeholder's considerations have become an important component for any tactical and successful implementation of any strategy or business plan. Therefore, there is a need to manage and engage them in every strategic level in the organisation because they can affect or be affected by the firm's objectives. The interest of the stakeholders must be aligned to the interest of the firm. Managers must develop relationships, inspire their stakeholders and create communities where everyone strives to give their best to deliver the value the firm promises (Freeman, Wicks, & Parmar, 2004). Using both narrow and wide definitions stakeholders, this theory was applied in assessing whether Nairobi City County employees have been involved in service delivery issues.

### **2.2.3 Technology Acceptance Model**

This theory was propounded by Davis (1989) and Davis, Bagozzi and Warshaw (1989) to predict the acceptability of an information system. TAM has proven to be a theoretical

model in helping to explain user behaviour of Information Technology (Legris, Ingham, & Colletette, 2003). TAM is an extension of Theory of Reasoned Action (TRA) propounded by Ajzen and Fishbein (1980) to understand an individual's voluntary behaviour and the basic motivation to perform an action which according to them is influenced by our attitudes and subjective norms (Ajzen & Fishbein, 1980).

Technology Acceptance Model suggests that the acceptability of an information system is determined by two main factors: perceived usefulness and perceived ease of (Vankatesh, Morris, & Davis, 2003). Perceived usefulness is defined as the degree to which a person believes that the use of a system improves his output. Perceived ease of use refers to the degree to which a person believes that the use of a system will be effortless (Davis, Bagozzi, & Warshaw, 1989).

Therefore, the decision to use an information system is determined by the person's attitude towards the system and the impact it may have on his or her performance at work. If the system is capable of improving performance at work, then it will easily be adopted and used. The purpose of this model is to assess the acceptability of e-government system in terms of usefulness and to identify the changes which must be incorporated to the system in order to make it acceptable and applicable to the users.

#### **2.2.4 Transformational Leadership Theory**

The term transformational leadership was first coined by Downton (1973) and later developed by Burns (1978) and advanced by Bass (1985). Transformational leadership theory puts more emphasis on organizational leaders as change agents whose duty is to drive change within the organization. Burns (1978) was of the view that transforming leadership is a process in which leaders and followers help each other to advance to a

higher level of morale and motivation and create a significant change in the life of people and the organization.

On the other hand Bass (1985) used the term transformational leadership to explain how transformational leadership could be measured, as well as how it impacts follower motivation and performance. Transformational leaders provide followers with an inspiring mission and vision and give them an identity. In addition, they encourage the followers to challenge the status quo and alter the environment through innovation and creativity which is rewarded.

There are four dimensions of transformational leadership theory; inspirational motivation, idealized influence, intellectual stimulation and individualized consideration. Inspirational motivation involves creating an inspiring vision of the future through communication of the organization purpose, capabilities and values. On the other hand idealized influence or charisma is the degree, in which the leader motivates people to buy into and deliver the vision of the organization through mission statement. Intellectual stimulation involves challenging assumptions, taking risks and soliciting ideas from the followers. It involves managing delivery of the vision through effective change management .Finally, Individualized consideration entails building a stronger, trust-based relationship with the followers through coaching and open interactions(Judge & Piccolo, 2004, ).

This theory was important in assessing leadership support in e-government and their influence on service delivery. According to Fountain (2001), transformation to e-government requires organizational leaders' commitment and willingness to change entrenched public structures and transaction processes. Using this approach, the manager (leader) and associates (followers) are "transformed" to enhance individual job

performance and as a group help the organization be more productive and successful (Hall, Johnson, Wysocki, Kepner, Farsworth, & Clark, 2000).

### **2.3 Empirical Review**

Public sector has in the recent past appreciated the opportunities offered by the ICT through e-government in streamlining internal processes in order to serve clients better, meet the ever increasing citizen's demands and ensuring that exceed their expectations. Organisations are currently employing technology to improve governance through engaging with citizens and improve service delivery to the citizens. Tapscott and Caston (1993) argued that ICT causes a "paradigm shift" introducing 'the age of network intelligence', reinventing businesses, governments and individuals. The traditional bureaucratic paradigm, characterized by internal productive efficiency, functional rationality, departmentalization, hierarchical control and rule-based management (Kaufman, 1977), is being replaced by competitive, knowledge based economy through e-government which emphasises on coordinated network building, customer satisfaction and speed in service delivery.

In an effort to focus more on user satisfaction and efficiency in service delivery, e-government has resulted to development of websites to bring people more closely to the government and reduce the cost of doing business. The major types of websites developed are information-oriented and user-oriented websites (Ho, 2002). The information-oriented websites provide more information about the government and the services offered by the government but do not allow two way information exchange between the government and the citizens. On the other hand user-focused website allows the users or the customers to

present data through the website and other modes of delivery and share information without any restrictions.

As the demand for integrated services and the need to share information with the public increases , most governments are modernising their ICT infrastructure and moving towards “whole-of-e-government” whose focus is provision of services at the front end through integration in back-end processes and systems to achieve client service delivery and greater efficiencies (United Nations, 2008).Through whole-of-government approach government agencies and organizations are able to share objectives across organizational boundaries as opposed to working singly within an organisation. The government operates as one business delivering services across the multiple boundaries where citizens can access government services by any means. This ensures efficiency and seamlessness in delivery of government services.

### **2.3.1 E-government Strategy**

Transformation in government service delivery is taking place around the world, as the public sector adopts a citizen-centric service ideal which focuses more on people and service delivery. There has been improvement in public sector value through the introduction of a more efficient service delivery in government offices which has traditionally been characterised by time wastage, lack of transparency and in the end dissatisfaction among citizens and businesses. Streamlining government processes through ICT eliminates redundant procedures and helps to reduce red tape.

In their study on transforming local governments through the use of application service providers (ASP), Chen & Gant (2001) found out that use of an ASP by local government help in meeting increasing e-government service demands by citizens and businesses

alike. EzGov.com, for example, provides their application services to Athens-Clarke County, Georgia allowing their citizens to pay parking tickets, property taxes, and utility bills online. The study also found that ASP can lower the cost of application development and maintenance by taking advantage of the economies of scale. Since most of the e-government services can be divided into several types, the application developed for one type of service can be used by multiple local governments. As a result, the cost of development as well as implementation is borne by multiple clients.

In South Africa within the developing country context, Visser & Twinomurunzi (2008) investigated Batho Pele (People First) - South Africa's constitutionally mandated public service delivery philosophy through e-government. Using interpretive paradigm, it was concluded that e-government in South Africa was not aligned to the service delivery philosophy hence not effective in delivering on the public service delivery mandate.

Failure of governments to transit to the digital environment can have consequences including poor service delivery, underperformance of spending, breaching of security and loss of citizen trust. Therefore, effective e-government implementation need to reflect public expectations in terms of economic and social value, openness, innovation, personalized service delivery and dialogue with citizens and businesses (OECD, 2014).

### **2.3.2 Revenue Management Automation**

Technological innovation has been an important matter in tax and revenue collection which has necessitated integration of former and new applications to assist in the dynamics of financial processes. The impacts of ICT use can be seen in a number of ways, including; reduced administrative and collection costs; decreased need for personnel; time savings for taxpayers due to fast processing; transparency in assessment,

collection, and related processes; reduced tax compliance costs; reduced communication costs; and timely access to information which results into plugging all revenue loss and improve efficiency and performance in revenue collections(Chatama, 2013).

In order to control revenue leakages and strengthen domestic resources mobilisation, most governments have adopted e-payments systems. In a study on “High Payoff in Electronic Government: Measuring the Return on e-government Investments” it was recommended that in order to have a successful e-government program, there was need to address either of the following; reduced costs of government operations with enhanced revenue collection; economic development; consolidating and integrating government systems; promoting democratic principles and improved service to citizens and other constituencies(Intergovernmental Advisory Board, 2003).

A study on the effect of Information Systems on Revenue Collection by local Authorities in Homa Bay County in Kenya, found out that computerization of council activities such as revenue collection enhanced efficiency as a result of timely revenue collection, enhanced management integrity, provision of clear records among other factors. In addition information systems also improved the operations that were facilitated by the Internal Control Systems which in turn enhanced efficiency and effectiveness of the council. Further, Internal Control Systems enhanced financial control which resulted into increased management integrity. On the negative side, the study found out that despite the Council having adopted the use of Information Systems on revenue collection and other financial operations, there was lack of commitment in utilising Information Systems and ICT hence the quality of services offered were still very low(Otieno, et al., 2013).

According to Delloite Access Economic (2015), digitizing customer transactions can lead to revenue collection benefits for government as payments using digital channels incur

less opportunity costs on the citizen by encouraging more timely payment and less reliance on additional labour resources to collect late fees. In addition, automating revenue generating procedures stems out corruption and graft while elevating trust in government at the same time. A study by the Centre for Electronic Governance (2002) on “Computerized Interstate Check posts of Gujarat State, India: A cost Benefit Evaluation Study” found out that electronic system for toll collection installed in 1998 significantly reduced corruption and increased revenue collection by automatically calculating tolls and fines and deducting the same from the carriers account. Before the installation of the system, toll booth operators allowed dangerously overloaded trucks through for a bribe and pocketed a share of the tolls collected.

However other studies have shown that e-government does not automatically lead to increase in revenue collection. A study by Waweru (2014) on “The Impact of Outsourcing Strategy on Service Delivery in Nairobi City County” concluded that productivity in Nairobi City County was based on its effectiveness and efficiency. This presented the ability of a service organization to fulfil its customers’ demands by doing the right things and ability to produce a specified output using as few input resources as possible by doing things right. It was concluded that customer satisfaction was typically the largest asset and the lead source of revenue.

In a study on “Information and Communication Technology (ICT) on Revenue Collection by Kenyan Counties” it was found out that in Kenya, county governments haven’t fully realized the impacts of the huge sums of revenues they lose or do not collect due to lack of appropriate MIS to co-ordinate various county departments. In addition, County employees charged with the collection of various forms of revenue collections are not

guided by clear revenue policies which in turn make it difficult to establish the effect of revenue collection on county's growth (Githinji, Mwaniki, Kirwa, & Mutongwa, 2014).

In order to fully realise the benefits of ICT in revenue collection, it is important to have a human resource which is technologically skilful. It is therefore important for the users of the e-government platforms to be trained and equipped with relevant expertise which would help them to operate and integrate to the revenue collection system. In addition, proper systems of administration must also be put in place to realise benefits of e-government service delivery (Chatama, 2013).

### **2.3.3 E-government Stakeholders Involvement**

Since implementation of e-government is done with intent of providing electronic information to stakeholders (businesses, government and citizens), the issue accessibility of the information is very important in order to achieve a higher level of stakeholder's engagement and data sharing. Deloitte Research (2000) defines e-government as the use of Information and Communication Technologies as a tool to achieve better government through enhanced access and delivery of public services to citizens and different stakeholders. Therefore there is a need to engage stakeholders from planning phase to the final implementation of e-government in order to realise continuous improvement of services.

Mundy and Musa (2010) have argued that any government that wishes to remain relevant to its citizen should take an active role in the implementation of e-government through advances in personalization of services, accessibility and greater use of technology in the private sector. Therefore, there is need to share and discuss e-government vision and policies with all the relevant stakeholders in order to improve ownership which is

fundamental while implementing e-government strategy (International Telecommunication Union, 2009).

Finding ways to involve stakeholders, gaining their political and making them influence the design and development of e-services and working processes is an important but complex task since there are many stakeholders with differing needs and possibilities to participate in e-government settings (Axelsson, Melin, & Lindgren, 2013). Thus there is the need to identify and critically analyse the main stakeholders involved, their ability to use e-government, their technical skills, their needs and their roles in ensuring successful in e-government implementation.

#### **2.3.4 E-government Leadership Support**

The success of e-government is the result of organizing human, material and technical resources through the backing by the strong determination and leadership which can be in the form of individual or a central coordinating body. In this case leadership is defined in terms of directing and completing the whole implementation of e-government, getting the results as well as winning the people over the cause and actions. The champion or the coordinating body can help not only to influence and gain the stakeholders support, but also to follow-up and monitor the implementation process. Leadership needs to not only endorse the projects, but also to proactively involve and monitor the projects throughout the entire process (Low & Theyangu, 2003).

Adoption of e-government projects needs strong leadership support especially in its early stages which can be costly and take a long time to deliver results. Before the project is initiated, leadership is needed in order to explain the concept, the model and create awareness; during the project, leadership is needed to manage change and support the

project; and during the project, it is needed to pledge the required flexibility and adaptability of the initiative (Ndou, 2004). Top leadership involvement and clear lines of accountability for making management improvements are crucial to overcoming organisations natural resistance to change, mobilising the resources needed to improve management and building and maintaining the organisation wide commitment to new ways of doing business (McClure, 2001 ).Among the countries where leadership has played an important role in e-government is Korea. The e-government of Korea was successfully achieved through the consistent leadership of successive presidents (Heejoon, 2006).

While effective top management leadership involvement is the foundation of any IT investment strategy, strong government leadership and responsive management processes must support an e-government initiative in order to manage any changes in the organisation during the implementation of e-government (Ebrahim & Irani, 2005).

### **2.3.5 Service Delivery**

Traditionally, public sectors and government institutions were known to deliver services which were not sync with the needs and preferences of the customers due to policies and procedures which were more profit-driven and less customer-focused. However, with the rise of the information revolution driven by ICT and the growing customer expectations, the citizen has become more empowered in terms of accessing information and using it to address his or her needs without any constraints. Citizens today are more aware of their rights, have better access to information on public services and consequently have higher expectations of service levels because they have been accustomed to capable private sector organizations providing high levels of customizations and other benefits (Public

Sector Research Centre, 2007).The information revolution has therefore empowered citizens to access, transmit and transform information in ways that governments are powerless and in the process undermine authoritative controls(World Bank, 2005).

The emergence of e-government has seen enormous developments in the range of service delivery technologies and digital tools and approaches available to both citizens and organizations. These advances have enabled citizens, businesses and public bodies to change the ways in which they interact, gain access to information and services and organize their work. The interactive aspects of e-government allow both citizens and bureaucrats to send and receive information. By facilitating two-way interaction, electronic governance has been hailed as a way to improve service delivery and responsiveness to citizens, in the long run generating greater public confidence in government (Gore, 1993).

Globally, leading governments are using ICT as an enabler to make services available, integrated and accessible to citizens through all modes of delivery channels by offering services based on citizens' particular needs, rather than just specific programs. Consequently, governments continue to develop policies and legislations governing online platforms and Web channels to ensure that services can be accessed by all. The international Web Content Accessibility Guidelines (WCAG), which promotes a high degree of usability for people with disabilities, is increasingly being adopted worldwide. For instance, in Canada, the province of Ontario has enacted specific accessibility legislation that provides for the development of standards for accessibility in both the public and private sectors (Duggan & Green, 2008).

According to Nkomo (2012), failure of governments to roll out e-government infrastructure has been identified as a major obstacle to attaining government service delivery in the developing world which in the end has resulted into: e-access divide (inequality in access to ICTS and to e-services), e-skills divide (inequality in the ability to use ICT and e-services among those who have access) and e-acceptance divide (inequality between those who accept e-services and those who do not). Digital divide 2015 statistics shows that despite over a billion people living in Africa, making up around 16.2% of the world population, only 28.6% of the households have Internet access. In Europe, which has 11.3% of the world population, more than 73.9% of the households have access to the Internet. In Kenya, only 68.4% of the population have access to internet (Internet World Stats, 2015). Therefore there is need for African countries to develop infrastructures which will ensure that ICT is accessible to everyone anywhere and at any time.

For organisation to deliver services in an effective and efficient manner, there is need to develop a strategic view about service delivery which acknowledges that service is the total experience a customer has in terms of timeliness in service delivery, dependability (reliability), user friendliness of the technology, usefulness, credibility (trustworthiness) and the extent to which service delivery meets the expectations of the users. This will ensure that the services are user focused.

#### **2.4 Critical Review of Literature**

In light of the reviewed literature, transformation of service delivery in government is highly dependent on proper implementation of e-government strategy. Majority of governments are employing ICT to ensure that they meet the ever increasing government

services demands by citizens and businesses failure to which can lead to poor service delivery and lack of citizen's trust. In addition, e-government is being institutionalised by most governments through revenue automation as a strategy to control revenue leakage, reduce corruption, enhance efficiency and strengthen domestic revenue mobilisation. This has in turn enhanced management integrity as a result of proper internal control systems.

Reviewed literature shows that for any successful implementation of e-government, it is important to share the vision and policies with all the relevant stakeholders in order to get their support. Top leadership support and involvement is also needed in order to manage any changes that may arise during the e-government implementation.

Despite of efforts by governments to introduce e-government infrastructures to ensure efficiency in service delivery, Africa still has experiences inefficiencies in online service delivery due to inability to access internet and also lack of necessary skills to operate and access ICT related services.

## **2.5 Research Gaps**

In respect to the above literature reviewed, several gaps were identified. Most of the literature is on studies conducted in developed countries whose strategic approach to e-government system management and financial grip is different from that Nairobi City County. Therefore, there is a need for this research to be carried out under a different contextual setting in order to avoid generalising on the findings from the already conducted research.

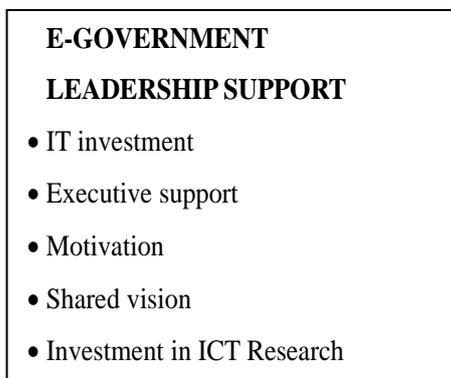
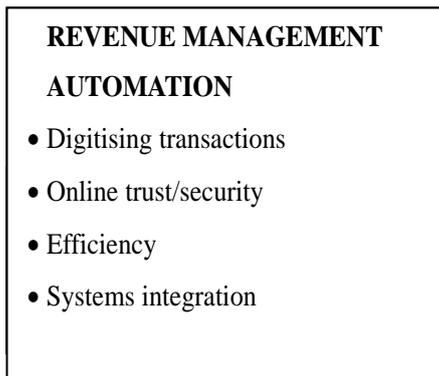
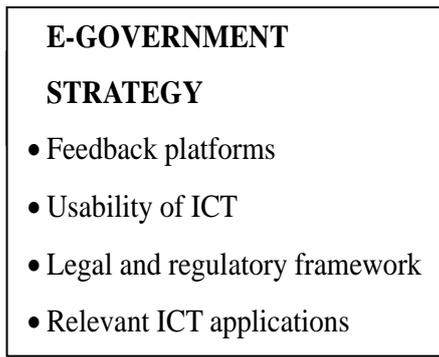
Secondly, some of the studies done relied on secondary data from different sources which can be criticised for lacking explanatory power due to omitting important factors. In order to bridge this gap, the research employed the use of primary data which was considered more valid and reliable.

In addition, the main focus of the research has been on the central or national government with little reference to county governments which deliver about 80% of the government services to the Citizens. The research findings may not be applicable to the county governments which are autonomous and separate from the national government in terms of context and roles. Therefore there is a research gap on the influence of e-government strategy in service delivery in Nairobi City County, Kenya.

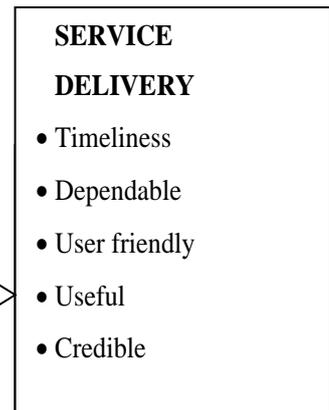
## **2.6 Conceptual Framework**

The conceptual framework below is a diagrammatic presentation of the relationship between independent and dependent variables. Independent variables are factors which influence other variables to change and the researcher has control over. In this case the independent variables are; e-government strategy, revenue management automation, e-government stakeholder involvement and e-government leadership support. On the other hand, dependent variables changes depending on the influence of the independent variables. In this case, the service delivery constitutes the dependent variable. The dependent variables show the effect of manipulating or introducing the independent variables. Satisfactory implementation of independent variables influences service delivery in Nairobi City County.

**Independent Variables**



**Dependent Variable**



**Figure 2.1: Conceptual Model**

**Source: (Researcher, 2016)**

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter describes the methods that were used in collection and compilation of data relevant in answering the research questions. The chapter comprised of the following sub-topics; research design, target population, sampling design, data collection instruments, data collection procedure, validity and reliability issues, data analysis and presentation and ethical considerations.

#### **3.2 Research Design**

To effectively address the research problem, the study employed descriptive survey design. Orodho (2003) defines descriptive survey as a method of collecting information by interviewing or administering a questionnaire for a sample of individuals. Descriptive survey design was suitable for this research because of its focus on a large population and gives explanation on the state of affairs as they exists at present (Kothari, 1999). In addition, this design was adopted since it helped to generate both numerical and descriptive data that was used in measuring correlation coefficient between the variables.

#### **3.3 Target Population**

According to Cooper and Schindler (2006), population is the total collection of elements with common observable characteristics about which some inferences can be made. It is that part of population which the researcher studies, analyses and draws conclusions regarding the entire population.

The target population for the study was 3 County Ministries in Nairobi City County. The selection of the three County Ministries was justified by the fact that it was a representative of the other NCC Ministries or population and also the population size was good enough to warrant statistical analysis. The study respondents consisted of 296 County employees working in their respective Ministries at County Headquarters.

**Table 3.1: Target Population**

No.	Nairobi City County Ministries	Population
1.	Public Service Management	105
2.	Information, Communication and E-Government	40
3.	Water, Energy, Forestry and Natural Resources	151
	<b>TOTAL</b>	<b>296</b>

**Source (NCC, 2016)**

### **3.4 Sampling Design**

A sample is a finite part of a statistical population whose properties are studied to gain information about the whole (Webster, 1985). When dealing with people, it can be defined as a set of respondents or participants in the study on which information is obtained. Therefore, sampling is the process of selecting units (for example people, organizations) from a population of interest so that by studying the sample we may fairly generalise our results back to the population from which they were chosen (Trochim, 2006).

This research adopted stratified random sampling method to obtain samples from the target populations. A model developed by Krejcie and Morgan (1970) was used to determine the sample size. Thereafter, using the proportionate stratified random sampling formula, sample sizes for each stratum in the target population was calculated. Dividing

the population into a series of relevant strata means that the sample was more likely to be representative (Saunders, Lewis, & Thornhill, 2007).

Using Krejcie and Morgan (1970) table, population size of 296 gave a sample size of 165. In order, to get sample size of each strata, stratified random sampling formula was used.

$$n_h = ( N_h / N ) * n$$

Where  $n_h$  is the sample size for stratum  $h$ ,  $N_h$  is the population size for stratum  $h$ ,  $N$  is total population size, and  $n$  is total sample size.

**Table 3.2: Sample Size**

No.	Nairobi City County Ministries	Population	Sample Size
1.	Public Service Management	105	59
2.	Information, Communication and E-Government	40	22
3.	Water, Energy, Forestry and Natural Resources	151	84
	<b>TOTAL</b>	<b>296</b>	<b>165</b>

**Source (Researcher, 2016)**

### 3.5 Data Collection Instruments

Questionnaires were used to collect primary data related to the research. This was because questionnaires avoid biasness while responding to questions by ensuring anonymity of the respondent while enabling large coverage of the population with little time, personnel and cost. According to Mulusa (1998) questionnaires are cheap to administer to respondents scattered over a large area and respondents feel free to give frank answers to sensitive questions. The questionnaires were self-administered to the sampled respondents.

The questionnaires were structured using both open-ended and closed-ended questions. Close-ended questions provided more structured responses (quantitative data) to facilitate tangible recommendations for statistical analysis. On the other hand, the open-ended questions provided additional information (qualitative data) that could not be captured in the close-ended questions. The questions focused on the participants' experiences with e-government in Nairobi City County and the influence in service delivery.

### **3.6 Data Collection Procedure**

Before commencement of the actual data collection, an introduction letter from Kenyatta University and a research permit from the National Council of Science and Technology were obtained for introduction and identification purposes to the target population. Thereafter, through departmental heads and secretaries, appointments were booked with the sampled Nairobi City County employees for introduction and administration of the questionnaires.

The respondents were briefed about the purpose of the research, given clear instructions and assured of confidentiality after which they were given enough time to fill in the questionnaires. All the filled questionnaires were then collected for analysis and interpretation.

### **3.7 Validity and Reliability Issues**

In order to ensure that the results of the study are more scientific and quantifiable, validity and reliability of the research was prioritised.

### **3.7.1 Validity**

Validity in research refers to how well a test measures what it is purported to measure (Phelan & Wren, 2016). It helps in analysing the appropriateness, meaningfulness and usefulness of the research study through control of variables.

In addressing validity, both external and content validity was taken into account. External validity was ensured through accurate sampling of the target population for the purpose of generalization of the study results. On the other hand content validity was addressed by capturing appropriate and relevant questions in the questionnaires which was further reviewed by experts. This helped in identifying and reviewing ambiguous words and statements which would otherwise fail to measure the intended variables.

### **3.7.2 Reliability**

Reliability can be defined as the extent to which research results are consistent over time and an accurate representation of the total population under study (Joppe, 2000). This can be achieved by keeping the data which has been collected safely and to enable others to investigate if any doubts arise in the research results. Reliability provides transparency and trust in the philosophy, approach and methods used in collecting and analysing data since they are open for scrutiny (Remeyi, Money, & Swartz, 2005).

This research addressed reliability issues through test and re-test method and Cronbach alpha during pilot study to ensure consistency of measure. The questionnaires were tested by sending it to five selected respondents with a view of amending questions where difficulties arise. A questionnaire was considered reliable if it produced similar results when re-administered repeatedly.

Cronbach's alpha or coefficient alpha was used to determine internal reliability of the questionnaires by measuring how consistently participants responded to one set of items or variables. It is a function of the average inter-correlations of items and the number of items in the scale which ranges from 0.0 to 1.0(Sauro, 2015). For the purpose of this research, the minimally acceptable measure of reliability was 0.70.Cronbach's alpha generally increases when the correlation between the items increase.

### **3.8 Data Analysis and Presentation**

This research yielded data that required both qualitative and quantitative analysis. The data was edited, checked for completeness, coded, classified and entered into Statistical Package for Social Sciences (SPSS Version 22.0) for subsequent analysis. Descriptive statistics was used to summarise and analyse the quantitative data obtained in order to come up with emerging data patterns. The statistics used included measures of central tendencies (mean) and measures of spread or dispersion (standard).Measure of central tendencies can be defined as a summary measure that attempt to describe a whole set of data with a single value that represents the middle or centre of its distribution in order to provide accurate distribution of the entire data (Gravetter, 2000).Measure of spread or dispersion is used to measure the extent of variability in a data. It gives a summary of data in a way that shows how scattered the values are and how much they differ from the mean value (Australian Bureau of Statistics, 2013).

The unstructured data obtained from open ended questions were summarised and analysed qualitatively using content analysis. The data was analysed by organizing and grouping it into similar themes or patterns with similar responses and thereafter these

categories were used to explain the findings. In order to avoid extraneous influences all the data collection was done through standardised procedures.

The relationship between the dependent and the independent variables were measured using regression analysis.

The Regression equation used for analysis was:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon$$

Where: Y = Service Delivery in Nairobi City County, Kenya

$\beta_0$  = Constant

$\beta_1$  = Coefficient of E-government strategy

$X_1$  = E-government Strategy

$B_2$  = Coefficient of Revenue Management Automation

$X_2$  = Revenue Management Automation

$B_3$  = Coefficient of E-government stakeholders involvement

$X_3$  = E-government stakeholders Involvement

$B_4$  = Coefficient of E-government leadership support

$X_4$  = E-government leadership support

$\epsilon$  = Error Term

### **3.9 Ethical Considerations**

University of Sheffield (2015) defines ethics as a system of moral principles or values, principles of right or good behavior in relating to others and the rules and standards of conduct binding together members of a profession. Therefore, research ethics refers to appropriate principles that govern research when people are involved as participants. The common ethical principles in research include protection of human participants, ensuring

that the research covers the interest of the society as a whole and protection of participant's privacy and confidentiality. Prior to embarking on the study, the participants were briefed on the nature and purpose of the study and their informed consent was sought before collecting data. Additionally, the research was devoid of deception and participants were given the right to stop participating in the study in the event they are not comfortable. All this was done to respect participant's privacy. Confidentiality on the other hand was guaranteed by protecting the identity of the participants by not disclosing their personal information or identifiable data related to them without their consent.

## **CHAPTER FOUR**

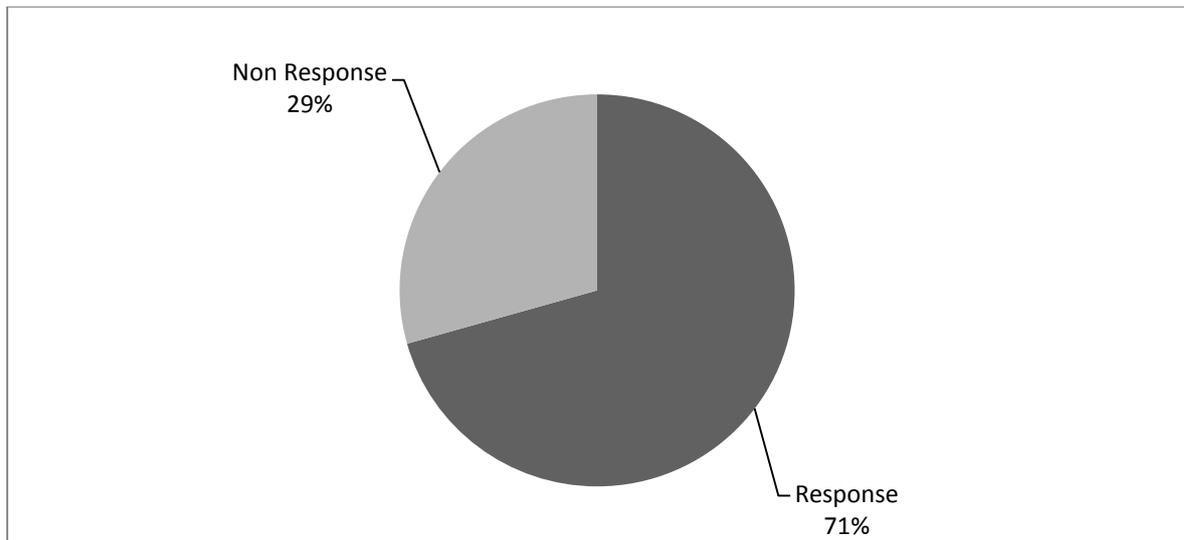
### **DATA ANALYSIS AND PRESENTATION**

#### **4.1 Introduction**

This chapter presents data analysis, presentation and discussions. The general objective of the study was to investigate the influence of e-government strategy on service delivery in Nairobi City County, Kenya. Data was collected using questionnaires and the findings summarized and analyzed by use of descriptive statistics which involved the use of frequency tables, percentages, mean and standard deviation.

##### **4.1.1 Response Rate**

A total of 165 questionnaires were distributed out of which 117 questionnaires were filled and returned giving a response rate of 71%. This response was good enough and representative of the population and conforms to Mugenda and Mugenda (2003) stipulation that a response rate of 70% and above is excellent. The high response rate was an indicator that the results of the survey were accurate, useful and representative of the target population. These findings are well illustrated in the Figure 4.1.



**Figure 4.1: Response Rate**

**Source (Researcher, 2016)**

## **4.2 General Information**

The researcher gathered general information concerning the target population in order to contextualise and understand the research problem and its significance. Additionally, this also aided in ensuring the overall quality of data analysis, relevancy of the gathered information and research findings.

In this section, the study sought to enquire from the respondents' general information including, Department/ Ministry, gender distribution and Number of years working in Nairobi City County. This background information is presented in the following subsections.

### **4.2.1 Department/ Ministry**

The study sought to determine the department/ministry the respondents were in. The findings are presented in Table 4.1.

**Table 4.1: NCC Departments / Ministry**

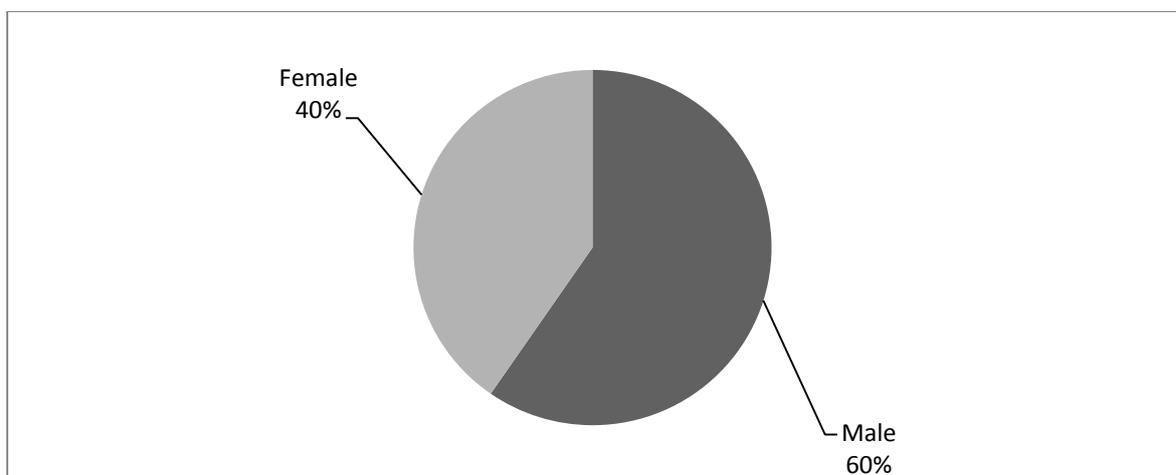
	<b>Frequency</b>	<b>Percent</b>
Public Service Management	45	37.9
Information, Communication and E-Government	20	17.4
Water, Energy, Forestry and Natural Resources	52	44.7
<b>Total</b>	<b>117</b>	<b>100.0</b>

**Source: (Researcher, 2016)**

From the findings, 37.9% of the respondents were in Public Service Management, 17.4% were in Information, Communication and E-Government and 44.7% were in Water, Energy, Forestry and Natural Resources. This shows that diverse information was sought from various respondents in various departments/ministries thus the data collected was relevant and reliable for the study.

#### **4.2.2 Gender Distribution**

The findings on respondent's gender are shown in Figure 4.2.



**Figure 4.2: Gender Distribution**

**Source: (Researcher, 2016)**

From the findings, 40% of the respondents were female while 60% were male. This shows that all gender were included thus provided a good representation for the study.

#### **4.2.3 Number of Years Working in Nairobi City County**

The respondents were required to indicate the period of time they had been working in Nairobi City County. The findings are shown in Table 4.2.

**Table 4.2: Number of Years Working in Nairobi City County**

	<b>Frequency</b>	<b>Percent</b>
0-5 years	19	16.1
6-10 years	31	26.7
11-20 years	18	15.5
21-30 years	23	19.3
30 and above years	26	22.4
<b>Total</b>	<b>117</b>	<b>100.0</b>

**Source: (Researcher, 2016)**

As highlighted in Table 4.2, 16.1% of the respondents had been working in Nairobi City County for between 0-5 years. 26.7% for a period of between 6-10 years, 15.5% for a period of between 11-20 years, 19.3% for a period of between 21-30 years and 22.4% for a period of between 30 and above years. This shows that the respondents had worked long enough in Nairobi City County thus had experience on the influence of e-government strategy on service delivery.

#### **4.3 Descriptive Statistics**

The Study sought to investigate the influence of e-government strategy on service delivery in Nairobi City County, Kenya. The descriptive statistics of the four variables were as presented as follows.

### 4.3.1 E-government Strategy

Several statements on e-government strategy on service delivery were identified and the respondents were required to indicate the extent to which it applies to their organization. A scale of 1-5 where 1=strongly disagree, 2=disagree, 3=Neutral, 4=Agree and 5 strongly agree was used. From the responses, descriptive measures: mean and standard deviation were used for ease of interpretation and generalization of findings. The findings are shown in Table 4.3.

**Table 4.3: E-government Strategy**

	<b>Mean</b>	<b>Std. Dev.</b>
Nairobi City County has an online feedback platform where users can dialogue with the County on service delivery issues	3.78	.957
It is easy to access and use Nairobi City County online services	3.77	1.141
Nairobi City County has legal and regulatory frameworks that secure my online service delivery.	3.93	1.061
Nairobi City County online services are relevant in solving my needs	3.73	1.138

**Source: (Researcher, 2016)**

From the findings, Nairobi City County has an online feedback platform where users can dialogue with the County on service delivery issues had a mean of 3.78 with a standard deviation of 0.957, it is easy to access and use Nairobi City County online services had a mean of 3.77 with a standard deviation of 1.141, Nairobi City County has legal and regulatory frameworks that secure my online service delivery had a mean of 3.93 with a standard deviation of 1.061 and Nairobi City County online services are relevant in solving the needs had a mean of 3.73 with a standard deviation of 1.138. The mean values ranges between 3.73-3.93 which shows that the respondents agreed with the statements.

This finding concurs with that of Chen and Gant (2001) who found out that use of application service providers by local government help in meeting increasing e-government service demands by citizens and businesses alike.

### 4.3.2 Revenue Management Automation

Several statements on revenue management automation on service delivery were identified and the respondents were required to indicate the extent to which it applies to their organization. A scale of 1-5 where 1=strongly disagree, 2=disagree, 3=Neutral, 4=Agree and 5 strongly agree was used. From the responses, descriptive measures: mean and standard deviation were used for ease of interpretation and generalization of findings. The findings are shown in Table 4.4.

**Table 4.4: Revenue Management Automation**

	<b>Mean</b>	<b>Std. Dev.</b>
Online transactions have clear back up records	3.81	1.130
Online transaction are secured	3.93	1.058
There is timely revenue collection by the Nairobi City County	3.94	1.004
Nairobi City County has automated back office and front office operations.	4.00	.977

**Source: (Researcher, 2016)**

From the finding, online transactions have clear back up records had a mean of 3.81 with a standard deviation of 1.130, online transaction are secured had a mean of 3.93 with a standard deviation of 1.058, there is timely revenue collection by the Nairobi City County had a mean of 3.94 with a standard deviation of 1.004 and Nairobi City County has automated back office and front office operations had a mean of 4.00 with a standard deviation of 0.977. The mean value for the finding ranges from 3.81-4.00 which indicates that the respondents were in agreement with the statements thus the finding concur with

that of Delloite Access Economic (2015) that digitizing customer transactions can lead to revenue collection benefits for government as payments using digital channels incur less opportunity costs on the citizen by encouraging more timely payment and less reliance on additional labour resources to collect late fees.

### 4.3.3 E-government Stakeholders Involvement

Several statements on stakeholder’s involvement on service delivery were identified and the respondents were required to indicate the extent to which it applies to their organization. From the responses, descriptive measures: mean and standard deviation were used for ease of interpretation and generalization of findings. The findings are shown in Table 4.5.

**Table 4.5: E-government Stakeholders Involvement**

	<b>Mean</b>	<b>Std. Dev.</b>
Nairobi City County has an online platform where stakeholders engage the County on service delivery.	3.43	1.076
Nairobi City County has ICT partnership trainings for ICT users on service delivery	4.01	.980
Nairobi City County has a well-articulated e-government vision which is shared to all the stakeholders	3.80	1.148

**Source :( Researcher, 2016)**

As indicated in Table 4.5, Nairobi City County has an online platform where stakeholders engage the County on service delivery had a mean of 3.43 with a standard deviation of 1.076, Nairobi City County has ICT partnership trainings for ICT users on service delivery had a mean of 4.01 with a standard deviation of 0.980 and Nairobi City County has a well-articulated e-government vision which is shared to all the stakeholders had a

mean of 3.80 with a standard deviation of 1.148. The mean value for the responses ranges from 3.43-3.80 which shows that the respondents agreed with the statements which concurs with the finding of Mundy and Musa (2010) who argued that any government that wishes to remain relevant to its citizen should take an active role in the implementation of e-government through advances in personalization of services, accessibility and greater use of technology in the private sector.

#### 4.3.4 E-government Leadership Support

Several statements on e-government leadership support on service delivery were identified and the respondents were required to indicate the extent to which it applies to their organization. From the responses, descriptive measures: mean and standard deviation were used for ease of interpretation and generalization of findings. The findings are shown in Table 4.6.

**Table 4.6: E-government Leadership Support**

	Mean	Std. Dev.
The County leadership allocates enough resources to support ICT related functions/investments	3.75	1.188
The Governor/executives champions ICT use in service delivery	3.98	.964
The senior executives motivates employees in using ICT in service delivery	3.79	1.025
The County leadership has shared a clear ICT vision for improving service delivery at Nairobi City County.	3.81	1.073
The senior executives allocates budget for ICT related research	3.86	1.037

**Source: (Researcher, 2016)**

As shown in Table 4.6, the County leadership allocates enough resources to support ICT related functions/investments had a mean of 3.75 with a standard deviation of 1.188, the Governor/executives champions ICT use in service delivery had a mean of 3.98 with a standard deviation of 0.964, the senior executives motivates employees in using ICT in service delivery had a mean of 3.79 with a standard deviation of 1.025, the County leadership has shared a clear ICT vision for improving service delivery at Nairobi City County had a mean of 3.81 with a standard deviation of 1.073 and the senior executives allocates budget for ICT related research had a mean of 3.86 with a standard deviation of 1.037. The mean values for the finding ranges from 3.75-3.98 which implies that the respondents were in agreement with the statements which is in line with the finding of McClure (2001) that top leadership involvement and clear lines of accountability for making management improvements are crucial to overcoming organisations natural resistance to change, mobilising the resources needed to improve management and building and maintaining the organisation wide commitment to new ways of doing business.

#### **4.3.5 Service Delivery**

The respondents were required to indicate the extent of agreement to which the statements on service delivery applies to their organization. From the responses, descriptive measures: mean and standard deviation were used for ease of interpretation and generalization of findings. The findings are shown in Table 4.7.

**Table 4.7: Service Delivery**

	<b>Mean</b>	<b>Std. Dev.</b>
Service delivery at the Nairobi City County is always timely	4.01	.911
Service delivery at the Nairobi City County is always dependable (reliable)	3.99	.984
Nairobi City County provides user friendly services using e-government platform	3.85	.995
Service delivery at the Nairobi City County useful in addressing the needs	4.06	1.004
The credibility (trustworthiness) of service delivery provided by the Nairobi City County is good	4.08	1.014

**Source: (Researcher, 2016)**

As shown in Table 4.7, service delivery at the Nairobi City County is always timely had a mean of 4.01 with a standard deviation of 0.911, service delivery at the Nairobi City County is always dependable (reliable) had a mean of 3.99 with a standard deviation of 0.984, Nairobi City County provides user friendly services using e-government platform had a mean of 3.85 with a standard deviation of 0.995, service delivery at the Nairobi City County useful in addressing the needs had a mean of 4.06 with a standard deviation of 1.004 and the credibility (trustworthiness) of service delivery provided by the Nairobi City County is good had a mean of 4.08 with a standard deviation of 1.014. The mean value for the finding ranges from 3.85-4.08 which shows that the respondents were in agreement with the statements which correlates with the finding of Gore (1993) that by facilitating two-way interaction, electronic governance has been hailed as a way to improve service delivery and responsiveness to citizens, in the long run generating greater public confidence in government.

#### 4.4 Inferential Analysis

Inferential statistics is used to make inferences about a population from information taken from small sample of that population. Inferential statistics is important in social sciences research where it allows generalization of results to a larger population. The researcher conducted multiple regression analysis to test relationship among variables. The research applied the statistical package for social sciences (SPSS) to code, enter and compute the measurements of the multiple regressions for the study.

Table 4.8 provides the summary of the regression model applied in this study. The coefficient of determinant (R Square) explains the extent to which changes independent variable can be explained by the change in the independent variables or the percentage of the variation in the dependent variable (Service delivery) that is explained by all the four independent variables (E-government strategy, Revenue management automation, E-government stakeholders' involvement and E-government leadership support).

**Table 4.8: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.742 <sup>a</sup>	.550	.542	0.0075402

a. Predictors: (Constant), E-government strategy, Revenue management automation, E-government stakeholders' involvement and E-government leadership support).

**Source: (Researcher, 2016)**

From the findings in Table 4.8, R was 0.742 meaning that there was a positive relationship between all the four factors influencing e-government strategy on service delivery. R- Square was 0.550 implying that only 55% of the dependent variables could be explained by the independent variables studied while only 45% of the variations were

due to other factors. On the other hand, the adjusted R-squared was 0.542 implying that 54.2% of the changes in service delivery in Nairobi City County, Kenya could be attributed to the combined effect of the predictor variables. This implies that the other variables not studied in this research contributed 45.8% of the variability in service delivery in Nairobi City County. Therefore, this suggests that the regression model has very good explanatory and predictor grounds. The findings concurs with those of Gore (1993) who found that by facilitating two-way interaction, electronic governance has been hailed as a way to improve service delivery and responsiveness to citizens, in the long run generating greater public confidence in government. Inferences can therefore be made from the findings that e-government strategy, revenue management automation, e-government stakeholder's involvement and e-government leadership support results in timely, dependable/reliable, user friendly, useful and flexible service delivery.

The overall significance of the regression model was assessed using ANOVA as detailed in Table 4.9 below. The ANOVA results of the regression analysis carried out in this study indicates that,  $p < 0.05$  (Sig=0.00) and therefore the model is statistically significant.

**Table 4.9: Summary of ANOVA Results**

<b>Model</b>	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Regression	1457.912	4	364.478	47.778	.000 <sup>b</sup>
Residual	1190.063	156	7.629		
<b>Total</b>	<b>2647.975</b>	<b>160</b>			

a. Dependant Variable: Service Delivery

b. Predictors:(Constant), e-government strategy, revenue management automation, e-government stakeholder's involvement, e-government leadership support

**Source: (Researcher, 2016)**

From the results of Table 4.9, the significance value is 0.000, which is below 0.05 indicating that the regression relationship was statistically significant in predicting how e-government strategy, revenue management automation, e-government stakeholder's involvement and e-government leadership support influence service delivery in Nairobi City County, Kenya. The F critical calculated at 5% level of significance was 2.46. Since F calculated (value = 47.778) is greater than the F critical (2.46), this shows that the overall model was significant.

The table of coefficients (Table 4.10) shows the relationship between the dependent variable and each of the independent variables through a measure of the standardized coefficients. It also indicates the significance of each relationship between an independent variable and the dependent.

**Table 4.10: Regression Coefficients**

Model	Un-standardized Coefficients		Standardized t Coefficients	Sig.
	B	Std. Error	Beta	
(Constant)	4.200	1.236	3.399	.001
E-government Strategy	.031	.099	.024	.308
Revenue Management Automation	.431	.109	.342	3.966
E-government stakeholders Involvement	.023	.135	.013	.170
E-government leadership Support	.434	.088	.431	4.938

a. Dependant Variable : Service Delivery

Source: (Researcher, 2016)

The established regression equation becomes;

$$Y = 4.2 + 0.031X_1 + 0.431X_2 + 0.023X_3 + 0.434X_4 + \varepsilon$$

Where: Y= Service Delivery, X<sub>1</sub>= E-government strategy, X<sub>2</sub>= Revenue Management Automation, X<sub>3</sub>= E-government Stakeholders Involvement, X<sub>4</sub>= E-government leadership Support and  $\varepsilon$  = Error Term.

From the findings of the regression analysis if all factors (e-government strategy, revenue management automation, e-government stakeholder's involvement and e-government leadership support) were held constant, service delivery in Nairobi City County, Kenya would be at 4.200. An increase in e-government strategy would lead to an increase service delivery by 0.031. An increase in revenue management automation would lead to an increase service delivery by 0.431. An increase in stakeholder's involvement would lead to an increase in service delivery by 0.023. An increase in leadership support would lead to an increase in service delivery by 0.434.

Overall, leadership support had the greatest influence on service delivery in Nairobi City County, Kenya followed by revenue management automation, then e-government strategy and finally stakeholders involvement had the least influence on service delivery in Nairobi City County, Kenya. All the variables were significant as the p-values were less than 0.05 an indication that all the factors were statistically significant. However, the findings show that Nairobi City County needs to invest more on revenue management automation, e-government strategy and stakeholder's involvement in order to impact more on service delivery.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

#### **5.1 Introduction**

The chapter presents summary of the research findings, conclusion drawn from the data findings and recommendations from the study. All this has been geared towards achieving the general and specific objectives of the study.

#### **5.2 Summary**

Regarding the influence of e-government strategy on service delivery, the study found out that e-government in Nairobi City County has an online feedback platform where citizens/users can interact with the county, online services were easy to access and use, there were legal and regulatory frameworks that secured online services and the services available were relevant in solving the needs of the citizens. The mean values ranged between 3.73-3.93 an indication that majority of the respondents were in agreement that e-government strategy had an influence on service delivery in Nairobi City County.

In terms of revenue management automation and its influence on service delivery, the study found out that online transactions had clear back up records, secure, revenues were timely collected and front office and back office operations were automated by the Nairobi City County. The mean value for the findings ranged from 3.81-4.00 which indicates that the respondents were in agreement that revenue management automation influenced service delivery in Nairobi City County.

In regard to the influence of e-government stakeholder's involvement on service delivery, the study revealed that Nairobi City County had an online platform where stakeholders engaged the County on service delivery, had ICT partnership trainings for ICT users on service delivery and had a well-articulated e-government vision which is shared to all the stakeholders. The mean value for the responses ranged from 3.43-3.80 an indication that the respondents were

Concerning influence of e-government leadership support on service delivery, the study established that the County leadership allocates enough resources to support ICT related functions/investments, the Governor/executives champions ICT use in service delivery, the senior executives motivates employees in using ICT in service delivery, the County leadership shared a clear ICT vision for improving service delivery and the senior executives allocated budget for ICT related research. The study established that leadership support in e-government is the greatest contributor of efficient service delivery in Nairobi City County Kenya.

### **5.3 Conclusion**

From the findings presented and the explanations offered, this study further concludes that e-government strategy influences service delivery in Nairobi City County, Kenya. E-government strategy has improved service delivery in Nairobi City County providing online feedback platform where citizens/users can interact with the county. In addition to that, Nairobi City County has legal and a regulatory framework which ensures that online services are secure hence protects the users against any fraud or data lose.

The study further concludes that revenue management automation influences service delivery by ensuring that back office and front office operations are automated hence there is timely revenue collection by the Nairobi City County

The study also concludes that stakeholder's involvement influences service delivery in Nairobi City County, Kenya. Effective service delivery through e-government needs stakeholder's involvement in all aspects Implementation. Stakeholder's involvement through ICT partnership trainings for ICT users is critical in ensuring effective service delivery

The study concludes that E-government leadership support influences service delivery in Nairobi City County, Kenya. County leadership have been in the forefront in championing e-government strategy as a solution to effective and efficient service delivery by championing ICT use in service deliver and developing a clear shared ICT vision for improving service delivery and allocating budget for ICT related research.

In general, the study concludes that e-government has influenced service delivery in Nairobi City County, Kenya by ensuring that service delivery is timely, dependable(reliable), user friendly , useful in addressing citizens needs and credible.

#### **5.4 Recommendations**

The study established that despite the implementation of e-government in Nairobi City County, the citizens were unable to access some services online. This study therefore recommends that the management teams responsible for e-government implementation at the Nairobi City County ministries ensure that all online services are flawless, easy to use and easily accessible by the citizens. There is need for Nairobi City County to come up

with ICT accessibility champions who will support ICT users who have accessibility and usability challenges through trainings. The County also need to provide a “design for all” or inclusive design ICT facilities that are accessible and usable for all without need for modification. The study also recommends that Nairobi City County need to offer relevant online services according to the needs of the citizens or service users.

Despite of revenue management automation having a positive influence on service delivery in Nairobi City County, Kenya, the study found out that some online transactions didn't have clear back-up records which also affected security of transactions and service delivery. This study therefore recommends that all transactions done online need to be stored or backed up daily in an offsite environment or mirrored data centres' where data is safe, easily accessible and privacy is ensured.

The study further recommends that Nairobi City County needs to create more awareness among the stakeholder's on e-government and service delivery since some stakeholder's were not aware on how to engage the County online on matters of service delivery. Therefore more training and sensitization is needed in order to ensure that stakeholders more conversant with the e-government applications or platforms. There is also need for the Nairobi City County to engage various stakeholders in the development and articulation of a shared e-government vision to create awareness and ownership.

Finally, the study found out that despite county leadership support positively influencing service delivery in Nairobi City County, stakeholders felt that they lacked motivation to use ICT services and also the resources allocated to ICT investment wasn't enough. Therefore the study recommends that the county leadership need to come up with various ways of motivating stakeholders in different departments to ensure that they use ICT services delivery. For instance stakeholders needed to be appreciated and intrinsically

motivated through various ICT trainings and engagements organised by the County leadership. In addition, the County leadership need to increase their support for ICT services by allocating and investing more resources in ICT related services delivery platforms.

### **5.5 Suggestion for Further Research**

This study focused on investigating the influence of e-government strategy on service delivery in Nairobi City County, Kenya. More research needs to be done on the challenges of e-government strategy on service delivery in the Nairobi City County ministries. Also, research need to be done on e-government strategy on service delivery in non-governmental sector in Kenya. In addition, a comparative research on e-government strategy and service delivery need to be done in other counties in Kenya.

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## APPENDICES

### Appendix I: Research Budget

	<b>Item</b>	<b>Amount in KES</b>
<b>Personnel</b>		
1.	Research Assistant	25,000.00
2.	Editorial Assistant	5,000.00
3.	Questionnaire Administrators	25,000.00
	Category Total:	55,000.00
<b>E-Services</b>		
1.	Photocopying Services	5,000.00
2.	Internet services	7,000.00
	Category Total:	12,000.00
<b>Supplies/Expenses</b>		
1.	Test Materials or samples	6,000.00
2.	Questionnaires	10,000.00
	Category Total:	16,000.00
<b>Travel</b>		
1.	Research Assistant Travel	5,000.00
2.	Questionnaire Administrators Travel	10,000.00
	Category Total:	15,000.00
	<b>TOTAL</b>	<b>KES 98,000.00</b>

## Appendix II: Research Work plan

STEPS IN THE RESEARCH PLAN	DEADLINE FOR COMPLETION
Submission of the proposal	
Design of a research plan	
Gaining access/getting permission to collect data at Nairobi City County Government Headquarters	
Literature Review	
Defining of a population, a sample frame, sampling OR setting up of selection criteria, etc.	
Design and testing of questionnaire	
Design of a final questionnaire/schedules, etc.	
Posting of questionnaires, etc.	
Editing of completed questionnaires, grouping and coding of data, entering data into a computer	
Design and testing of a computer program – SPSS Version 22	
Raw tabulations/draft analysis of quantitative data	
Analysis of data	
Report up of findings	
Presentation of final research product	

### **Appendix III: Letter of Introduction**

Dear Respondent,

#### **RE: Support on Research Project**

I am a postgraduate student at the Kenyatta University pursuing a degree in Masters in Business Administration. As part of the requirement for the award of the degree in MBA, I'm undertaking a research on **e-government strategy and service delivery in Nairobi City County, Kenya.**

Therefore, I'm kindly requesting for your support in terms of time in responding to the attached questionnaire. Your precision and honest response will be critical in ensuring objectivity in the research.

All the information received will be treated in strict confidence. Thank you for your valuable time and participation

Yours faithfully;

Michael Mutinda Mbuvi

**Appendix IV: Research Questionnaire**

This questionnaire is aimed at collecting information on the **influence of e-government strategy on service delivery in Nairobi City County, Kenya**. The information given will support the researcher in achieving his academic goals. The information will be treated with utmost confidentiality and will only be utilized for the purposes of this study. Your participation will be highly appreciated. **(Please tick as appropriate)**

**PART 1: GENERAL INFORMATION**

1. Department/ Ministry.....

2. Job description.....

3. Gender

Male  Female

4. Number of years working in Nairobi City County

0-5	6-10	11-20	21-30	30 and above

**PART 2: E-GOVERNMENT STRATEGY**

5. Nairobi City County has an online feedback platform where users can dialogue with the County on service delivery issues?

Strongly Agree	Agree	No opinion	Disagree	Strongly Disagree

6. It is easy to access and use Nairobi City County online services. Do you agree?

Strongly Agree	Agree	No opinion	Disagree	Strongly Disagree

7. Nairobi City County has legal and regulatory frameworks that secure my online service delivery.

Strongly Agree	Agree	No opinion	Disagree	Strongly Disagree

8. Nairobi City County online services are relevant in solving my needs. Do you agree?

Strongly Agree	Agree	No opinion	Disagree	Strongly Disagree

### PART 3: REVENUE MANAGEMENT AUTOMATION

On a scale of 1-5, rate the following statements on how they apply in your organization

Where; 1=strongly disagree, 2=disagree, 3=Neutral, 4=Agree and 5 strongly agree

		1	2	3	4	5
9.	Online transactions have clear back up records					
10.	Online transaction are secured					
11.	There is timely revenue collection by the Nairobi City County					
12.	Nairobi City County has automated back office and front office operations.					

### PART 4: E—GOVERNMENT STAKEHOLDERS INVOLVEMENT

13. Nairobi City County has an online platform where stakeholders engage the County on service delivery.

Not aware	Somewhat aware	Usually aware	Very much aware

14. Nairobi City County has partnership trainings for ICT users on service delivery. Do you agree?

<b>Strongly Agree</b>	<b>Agree</b>	<b>No opinion</b>	<b>Disagree</b>	<b>Strongly Disagree</b>

15. Nairobi City County has a well-articulated e-government vision which is shared to all the stakeholders? Do you agree?

<b>Strongly Agree</b>	<b>Agree</b>	<b>No opinion</b>	<b>Disagree</b>	<b>Strongly Disagree</b>

**PART 5: E-GOVERNMENT LEADERSHIP SUPPORT**

On a scale of 1-5, rate the following statements on how they apply in Nairobi City County

Where; **1=strongly disagree, 2=disagree, 3=Neutral, 4=Agree and 5 strongly agree**

		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>16.</b>	The County leadership allocates enough resources to support ICT related functions/investments					
<b>17.</b>	The Governor/executives champions ICT use in service delivery					
<b>18.</b>	The senior executives motivates employees in using ICT in service delivery					
<b>19.</b>	The County leadership has shared a clear ICT vision for improving service delivery at Nairobi City County.					
<b>20.</b>	The senior executives allocates budget for ICT related research					

**PART 6: SERVICE DELIVERY**

21. Service delivery at the Nairobi City County is always timely. Do you agree?

<b>Strongly Agree</b>	<b>Agree</b>	<b>No opinion</b>	<b>Disagree</b>	<b>Strongly Disagree</b>

22. Service delivery at the Nairobi City County is always dependable (reliable). Do you agree?

<b>Strongly Agree</b>	<b>Agree</b>	<b>No opinion</b>	<b>Disagree</b>	<b>Strongly Disagree</b>

23. Nairobi City County provides user friendly services using e-government platform. Do you agree?

<b>Strongly Agree</b>	<b>Agree</b>	<b>No opinion</b>	<b>Disagree</b>	<b>Strongly Disagree</b>

24. Do you find online service delivery at the Nairobi City County useful in addressing your needs?

<b>Extremely useful</b>	<b>Moderately useful</b>	<b>Somewhat useful</b>	<b>Slightly useful</b>	<b>Not at all useful</b>

25. How to do you rate the credibility (trustworthiness) of service delivery provided by the Nairobi City County?

<b>Very good</b>	<b>Good</b>	<b>Acceptable</b>	<b>Poor</b>	<b>Very poor</b>

26. Do you have any suggestions on how Nairobi City County online service delivery can be further improved?

.....

END

THANK YOU FOR YOUR PARTICIPATION

## Appendix V: Determining Sample Size

Table for determining sample size for a known population

<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	1000000	384

Note: N is population size, S is Sample size

Source: Krejcie and Morgan (1970)

## Appendix VI: E-government Development Index 2014

Country	Rank 2014	EGDI 2014	Country	Rank 2014	EGDI 2014
Republic of Korea	1	0.9462	Bosnia and Herzegovina	97	0.4707
Australia	2	0.9103	Tonga	98	0.4706
Singapore	3	0.9076	Viet Nam	99	0.4705
France	4	0.8938	Uzbekistan	100	0.4695
Netherlands	5	0.8897	Kyrgyzstan	101	0.4657
Japan	6	0.8874	Thailand	102	0.4631
United States of America	7	0.8748	Bolivia	103	0.4562
United Kingdom of Great Britain and Northern Ireland	8	0.8695	Saint Lucia	104	0.4525
New Zealand	9	0.8644	Iran (Islamic Republic of)	105	0.4508
Finland	10	0.8449	Indonesia	106	0.4487
Canada	11	0.8418	Dominican Republic	107	0.4481
Spain	12	0.841	Palau	108	0.4415
Norway	13	0.8357	Jamaica	109	0.4388
Sweden	14	0.8225	Dominica	110	0.4338
Estonia	15	0.818	Samoa	111	0.4204
Denmark	16	0.8162	Botswana	112	0.4198
Israel	17	0.8162	Saint Vincent and the Grenadines	113	0.4158
Bahrain	18	0.8089	Honduras	114	0.4083
Iceland	19	0.797	Suriname	115	0.4045
Austria	20	0.7912	Cuba	116	0.3917
Germany	21	0.7864	Namibia	117	0.388
Ireland	22	0.781	India	118	0.3834
Italy	23	0.7593	Kenya	119	0.3805
Luxembourg	24	0.7591	Belize	120	0.3774
Belgium	25	0.7564	Libya	121	0.3753
Uruguay	26	0.742	Paraguay	122	0.374
Russian Federation	27	0.7296	Ghana	123	0.3735
Kazakhstan	28	0.7283	Guyana	124	0.3695
Lithuania	29	0.7271	Rwanda	125	0.3589
Switzerland	30	0.7267	Zimbabwe	126	0.3585
Latvia	31	0.7178	Cape Verde	127	0.3551
United Arab Emirates	32	0.7136	Turkmenistan	128	0.3511
Chile	33	0.7122	Tajikistan	129	0.3395
Greece	34	0.7118	Micronesia (Federated States of)	130	0.3337
Liechtenstein	35	0.6982	Gabon	131	0.3294
Saudi Arabia	36	0.69	Kiribati	132	0.3201

Portugal	37	0.69	Guatemala	133	0.316
Monaco	38	0.6715	Iraq	134	0.3141
Hungary	39	0.6637	Syrian Arab Republic	135	0.3134
Malta	40	0.6518	Algeria	136	0.3106
Slovenia	41	0.6505	Tuvalu	137	0.3059
Poland	42	0.6482	Swaziland	138	0.3056
Andorra	43	0.6426	Cambodia	139	0.2999
Qatar	44	0.6362	Angola	140	0.297
Montenegro	45	0.6346	Nigeria	141	0.2929
Argentina	46	0.6306	Marshall Islands	142	0.2851
Croatia	47	0.6282	Bhutan	143	0.2829
Oman	48	0.6273	Cameroon	144	0.2782
Kuwait	49	0.6268	Nauru	145	0.2776
Colombia	50	0.6173	United Republic of Tanzania	146	0.2764
Slovakia	51	0.6148	Nicaragua	147	0.2759
Malaysia	52	0.6115	Bangladesh	148	0.2757
Czech Republic	53	0.607	Democratic People's Republic of Korea	149	0.2753
Costa Rica	54	0.6061	Yemen	150	0.272
Belarus	55	0.6053	Senegal	151	0.2666
Georgia (Country)	56	0.6047	Lao People's Democratic Republic	152	0.2659
Brazil	57	0.6008	Lesotho	153	0.2629
Cyprus	58	0.5958	Sudan	154	0.2606
Barbados	59	0.5933	Madagascar	155	0.2606
Antigua and Barbuda	60	0.5927	Uganda	156	0.2593
Armenia	61	0.5897	Ethiopia	157	0.2589
San Marino	62	0.5823	Pakistan	158	0.258
Mexico	63	0.5733	Vanuatu	159	0.2571
Romania	64	0.5632	Congo	160	0.257
Mongolia	65	0.5581	Timor-Leste	161	0.2528
Republic of Moldova	66	0.5571	Togo	162	0.2446
Venezuela	67	0.5564	Zambia	163	0.2389
Azerbaijan	68	0.5472	Mozambique	164	0.2384
Serbia	69	0.5472	Nepal	165	0.2344
China	70	0.545	Malawi	166	0.2321
Turkey	71	0.5443	Gambia	167	0.2285
Peru	72	0.5435	Equatorial Guinea	168	0.2268
Bulgaria	73	0.5421	Sao Tome and Principe	169	0.2218
Sri Lanka	74	0.5418	Solomon Islands	170	0.2087
Tunisia	75	0.539	Côte d'Ivoire	171	0.2039
Mauritius	76	0.5338	Burundi	172	0.1928
Panama	77	0.5242	Afghanistan	173	0.19

Grenada	78	0.522	Mauritania	174	0.1893
Jordan	79	0.5167	Myanmar	175	0.1869
Egypt	80	0.5129	Haiti	176	0.1809
Seychelles	81	0.5113	Comoros	177	0.1808
Morocco	82	0.506	Burkina Faso	178	0.1804
Ecuador	83	0.5053	Liberia	179	0.1768
Albania	84	0.5046	Benin	180	0.1685
Fiji	85	0.5044	Mali	181	0.1634
Brunei Darussalam	86	0.5042	Guinea-Bissau	182	0.1609
Ukraine	87	0.5032	Democratic Republic of the Congo	183	0.1551
El Salvador	88	0.4989	Djibouti	184	0.1456
Lebanon	89	0.4982	South Sudan	185	0.1418
Saint Kitts and Nevis	90	0.498	Sierra Leone	186	0.1329
Trinidad and Tobago	91	0.4932	Central African Republic	187	0.1257
Bahamas	92	0.49	Papua New Guinea	188	0.1203
South Africa	93	0.4869	Chad	189	0.1076
Maldives	94	0.4813	Guinea	190	0.0954
Philippines	95	0.4768	Niger	191	0.0946
The former Yugoslav Republic of Macedonia	96	0.472	Eritrea	192	0.0908
			Somalia	193	0.0139

**Source: United Nations (2014)**