

**FACTORS INFLUENCING ACCESS TO GOVERNMENT SERVICES
THROUGH E-GOVERNMENT PROGRAMME: A CASE OF STAREHE SUB-
COUNTY, IN NAIROBI, KENYA**

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L50/62643/2013**

**A RESEARCH PROJECT REPORT SUBMITTED IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER
OF ARTS IN PROJECT PLANNING AND MANAGEMENT OF
THE UNIVERSITY OF NAIROBI**

2017

DECLARATION

This research project report is my original work and has never been exhibited for an award of a Masters in this university or any other University.

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DEDICATION

I bestow this research to my parents who've been my pillar of strength and have taught me to fight for success. My parents Sebastian P. Kamairoh and Susan Kamairoh have been my financial and emotional pillar all through and their inspiration and determined support has enabled me to realize this dream.

I would also like to dedicate my study to my husband, Mr. Harold Kinda Ndenge who has been on the forefront in helping me accomplish this task. His consistent reassurance, enthusiasm and support have been an incredible pillar to lean on. I also extended the gratitude to my little boys Andriey Ndenge Kinda and Shayne Gitonga Kinda for their patience and love during the whole process. I'm humbly appreciative to my brothers and sister for their unswerving assistance and prayers.

ACKNOWLEDGEMENT

I take this chance to direct my heartfelt appreciation to my academic supervisor Dr. John Mbugua for his outstanding supervision, productive leadership, instrumental feedback, and reinforcement during my Masters journey. His critical advice, insightful comments, and knowledge gave me the confidence to put the study into better perspective and refine it better.

Secondly, I would like to recognize my lecturers and internal support of the University of Nairobi for your professional insight and guidance all through my studies. Lastly, I want to thank each individual who has participated in making this study a success.

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ABBREVIATION AND ACRONYMS

DVRF	Digital Village Revolving Fund
DVP	Digital Villages Project
EGDI	E-Government Development Index
EU	European Union
GDP	Gross Domestic Product
G2C	Government-to-Citizen
G2G	Government-to-Government
HINARI	Health Inter-Network
ICT	Information and Communication Technology
ICT4D	Information Communication Technology for Development
IJACSA	International Journal of Advanced Computer Science and Applications
INASP	International Network for the Availability of Scientific Publications
IT	Information Technology
ITU	International Telecommunication Union
ISP	Internet Service Provider
KICTB	Kenya ICT Board
KNBS	Kenya National Bureau of Statistics
OECD	Organisation for Economic Co-operation and Development
PERI	Programme for the Enhancement of Research Information
SPIDER	Swedish Program for ICTs in Developing Regions
TAM	Technology Acceptance Model
TRA	Theory of Reasoned Action
UN	United Nations
UNDP	United Nations Development Programme
UNPAN	United Nations Public Administration Network
USA	United States of America

ABSTRACT

Governments around the world are under pressure to hasten their execution of e-government, so as to improve the accessibility, good organization and promptness of their services. Nevertheless, there are no suitable policies and models to help in the process as each government is working with their own developed programmes to implement e-government. Kenya's digital gap is widening as the (ICT) Information and Communication Technology policy does not have a defined mechanism to warrant equal access and inclusion. The purpose of the study was to examine the factors influencing access to government services through e-government programme. The study was steered by the following objectives; to analyze how ICT infrastructure influences access to government services via e-government programme; to examine how the level of education influences right to use government services through e-government programme; to evaluate how economic status influences the right to use government services through e-government programme; to explore the influence of cultural factors in accessing government services through e-government programme. The sample of this study was restricted to Kenyan citizens who are identity card holders, working or residing in Starehe Sub-County. Literature recognised any research and other sources of information available that related to the study. A sample size of 384 was used to symbolize the larger population in the study. The study used descriptive survey approach by developing a questionnaire for it. The questionnaire was designed and centred on the research conceptual model. Analysis and explanation of the collected data was done using statistical package for social sciences package (SPSS). Information collected resolve to be presented in frequency tables. The study examined the factors influencing right to use government services through e-government programme. Out of the 384 respondents only 271(71%) were completed and submitted. The study concluded that all the four factors; ICT infrastructure, level of education, economic and cultural phenomena where critical in accessing e-government services. While the ICT infrastructure had tremendously improved the level of access was still wanting. 88% of the respondents were able to access the internet. 93% had at least basic knowledge in ICT yet only 62% found e-government platforms resourceful. Although 59% found e-government services economically affordable and 94% found it useful, only 50% could navigate easily. This showed that people attitude towards technology was important and there was need for orientation as well as sensitization to create awareness and significance of the same. The study proposed that further research to be conducted on the consistency of plan of implementation of e-government programme; to examine how government policies influence the performance of e-government services and to discuss the monitoring and evaluation strategies of e-government programme.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Governments have embraced Internet use and transformed the face to face traditional way of service delivery to digitized platforms. The emergence of the internet in the mid - 1990s has seen governments globally implementing projects and programs so as to exploit the massive potential exhibited by internet for clear-cut purpose of perfecting and improving the governing process. Like the personal computer, the internet has turn out to be a necessity tool in the daily management of government. The 2014 United Nations E-Government Survey expresses that Europe maintains at the top in the uppermost regional E-Government Development Index (EGDI) followed by the Americans ranked 7th globally. It continues to affirm that United Nations Member States which are all 193 have national websites and some online presence.

The telecommunication sector continues to be a vital energy in Africa's progress in trade and industry in recent years. ICT revenue growth has been exhibited in Africa at an yearly growth rate of 40 per cent and mobile subscriber's numbers have exceeded 400 million in 2011(UN E-government Survey, 2014). The Global E-Government Readiness Report (2004) states that modernism and e-government provides substantial chances to reinvent public management into a mechanism of sustainable growth.

E-Government Programme have the ability to improve the way public administrations function and can result in more responsive and customer-focused government (OCDE 2003). The expectancy is now delivery of services within a shorter time frame, greater efficiency and convenience. This brings forward the e-government initiative, which is principally about the usage of ICTs by government support systems to electronically provide their services (Patel and Jacobson 2008). Traditionally, face to face has been the mode in which governments have transacted their services, but states are progressively coming to terms with the use of ICTs to deliver public news and amenities (Heeks, 2002, Norris, 2004; Seed, 2007). E-government has become unavoidable and an imperative

Phenomenon in current public administration. Governments have used Internet-based technologies, for almost a decade now and in particularly the World Wide Web and e-mail. There is barely a part of government activity that does not require the use of ICTs. ICTs are gradually used to enhance the efficiency and transparency of public administration to bring about government services and information to its subjects and to better interact with citizens by governments all over the world. E-government plays an increasingly significant part in the promotion of inclusive development, democracy and citizen participation, and has grown in parallel to the rising demand for government accountability and transparency (UNPAN, 2012). E-government is likened to the usage of ICTs in state affairs. While the attention is commonly on the dispensation and provision of amenities, the extensive description incorporates all viewpoints of activities done by a government. E-government can also be defined as the capability to renovate public administration by means of using ICTs or in simpler terms it is actually a new form of government engulfed and envisioned around ICTs. This feature is regularly connected to Internet usage and Terms and definitions embraced by individual countries have shifted as development is realized towards particular objectives and as priorities change (OCDE 2003).

The introduction of E-government Programme in Kenya in June 2004 became one of the landmark significances and achievements of the government of Kenya towards the recognition of objectives for Wealth and Employment Creation and national development goals as delineated in the Kenya Vision 2030. The Kenyan government has subsequently dedicated itself to realizing a functioning and operative e-government to proficiently delivery information, promote productivity among public servants, facilitate better services to the citizens, inspire contribution of citizens in government and enable all Kenyans. It is important that the perceptive towards Information Technology (IT) implementation be executed as e-government amenities are typically delivered by means of ICT and from such we can further get to comprehend the adoption and uptake of e-government structures (Bwalya, 2009).

However, governments face pressure between the desire to open up new channels in order to improve quality and efficiency with the need to maintain the traditional ways for reasons of effectiveness and equity. E-Government implementation for various reasons has turned out to be the center of quite a number of governments around the globe. Firstly, the uprising in Information Communication Technology (ICT) has pressurized governments to enhance service delivery, exhibit inclusive governance, social inclusion, and uphold democracy. To date, governments have accentuated that adoption of e-government will not necessarily mean that the traditional methods of interacting with government will dissolve. This may mean that governments are either skeptical about the e-government programme or they are not able to reach citizens as widely as expected. The government of Kenya, private contractors and other stakeholders, collectively increase ICT investments so as to reach the broader population of Kenya notwithstanding the demographic dynamics through the *Digital Villages Project (DVP)* which carries the principal power. Digital villages can also be named *Pasha Centres*, meaning “to enlighten”, and are situated in resource-poor and rural environments.

1.2 Statement of the Problem

In Kenya, digital villages are likened to telecentres from other countries, for example, in India and Sri Lanka (Hansson, 2010). Although telecentre is typically big, they are generally compared to cyber cafés in Kenya for internet access. Consequently, a digital village in Kenya has a parallel responsibility just like a telecentre which is to deliver services pertaining to telecommunication as well as Internet. Furthermore, digital villages are similarly intended to deliver certain education, e-government services and training. The Kenyan Government find it challenging to sustain necessities of a population that is dissimilar in aspects of cultural and demography context. (Njuru, 2011) states that the Government of Kenya has failed in preparing Kenyans on ways of taking advantage of technology to gain right of use for government services, offering enticements to boost technology usage and publishing information concerning e-government. Regardless of the benefits exhibited internationally for executing e-government no research has presented that any of the Kenyan e-government’s objectives: promoting efficiency among public

servants, refining information currency to citizens, encouraging citizens' participation, enhancing delivery of public services has been achieved (Njuru, 2011).

Sharma and Gupta (2003) recognized that the inauguration of e-government era is equally challenging and critical for numerous countries around the globe. A perfect example in Kenya is that of the digital gap which is broadening because the ICT policies don't have a detailed mechanism to safeguard equal access and inclusion (UN, 2010). Nyambura (2015) states that different Ministry websites have provided email addresses and most of them were inactive. A random visit to fill out iTax return forms at Nairobi Huduma centre for IT support exposed that there were only 3 desks to provide the service for about 250 citizens exhibiting a higher demand for the service than the supply. It was not better at the Identification cards section, where there were only 5 desks to serve about 400 citizens (Nyambura, 2015). Consequently, this study intended to understand the knowledge gap by looking for answers in the following question; Factors influencing access to government services through the e-government programme.

1.3 Purpose of the Study

The purpose of the study was to examine the factors influencing access to government services through e-government programme in Starehe Sub-County, Nairobi County, Kenya.

1.4 Objectives of the Study

This study was directed by the following research objectives;

1. To analyze how ICT infrastructure influences access to government services through e-government programme in Starehe Sub-County, Nairobi County, Kenya.
2. To examine how the level of education influences access to government services through e-government programme in Starehe Sub-County, Nairobi County, Kenya.
3. To evaluate how economic status influences the access to government services through e-government programme in Starehe Sub-County, Nairobi County, Kenya.

4. To explore the influence of cultural factors in accessing government services through e-government programme in Starehe Sub-County, Nairobi County, Kenya.

1.5 Research Questions

This study was steered by the following research questions;

1. How does ICT infrastructure influence access to government services through e-government programme in Starehe Sub-County, Nairobi County, Kenya?
2. How does the level of education influence the access to government services through e-government programme in Starehe Sub-County, Nairobi County, Kenya?
3. How does the economic status influence access to government services through e-government programme in Starehe Sub-County, Nairobi County, Kenya?
4. How do cultural factors influence access to government services through e-government programme in Starehe Sub-County, Nairobi County, Kenya?

1.6 Significance of the Study

The significance of the study was to examine the factors influencing access to government services through e-government programme. The study justified why ICT infrastructure, level of education, economic status and cultural phenomena are critical in accessing e-government services. It examined citizens' characteristics, which have improved for better understanding of technology and how they have benefited. The study may be valuable to governments who through technology innovations they can be able to better interconnect with and provide information to people and also develop transparency and efficiency in public administration.

The study is optimistic that the findings will help in tackling the digital divide problem in Kenya. It also anticipates to promote more transparent, openness, effective governance and accountable where the new ICT technologies, will enable effective knowledge sharing, collaboration and management between at all levels and all sectors of government whether local, national, or cross-border. The study is also expected to compliment or

disapprove other researchers. This will assist researchers in carrying further studies on problems that may arise on this study.

1.7 Basic Assumptions of the Study

The study assumed that the questionnaire was comprehensible to the respondents and that the respondents will cooperate during the study. A self-sufficient e-government service was anticipated to be a 'one-stop shopping' to users. It was also projected to provide a forum in which people can access and discharge data. This could be done through government websites that are tailor-made to deliver information regardless of the numerous well-designed components of that specific government support system. This saves time for both the users and the government.

The study also thought that e-government could improve productivity in public services provision by way of electronic connections and exchanges with nongovernmental organizations, government agencies, business, and its people.

1.8 Limitations of the Study

The topic involves a wide scope of population and it was not possible to cover all the areas adequately. The study also experienced some financial constraint but family members were able to chip in to make sure the budget is met.

1.9 Delimitation of the Study

The sample of this study was restricted to Kenyan citizens who are identity card holders, working or residing in Nairobi county region. Since Nairobi County is very big the study narrowed it down to Starehe Sub-county to be precise. Second, the participants were randomly selected from the wards to give each subject equal opportunity of participation in the study. Nairobi is a cosmopolitan area and therefore was able to promote equality and represent people of all tribes, race and ethnicity. This inclusion reflected the political affiliations, ethnic, tribal, and regional diversity that characterizes Nairobi demographic. Last, this study was limited to the potential to escalate accessibility to government services and its perceived use of e-government.

1.10 Definitions of Significant Terms Used in the Study

Access to government services: This is physical use or right of use of platforms, websites and any means to gain information, pay for or inquire about government services and further engage the government.

Cultural factors: These are established sets of beliefs, values, customs, traditions and behaviors that exist within a population.

Digital Divide: It is the inconsistency that occurs between people who possess the resources and access to use the internet, and people who lack the ability and resources to access technology.

Economic status: This is the status of a subject's financial capability to produce, operate and handle general welfare.

E-government: The utilizing of the world-wide-web and internet for supplying government services and information to people. E-government can additionally be termed as the process in which ICT is used by government support systems, to transform interactions among, government employees, industries, citizens and policy makers.

ICT (Information and Communication Technology): A general expression that includes any communication or application device, encompassing: radio, computer, cellular phones, television, network software and hardware, as well as satellite systems and a variety of applications and services connected to them like videoconferencing and distance learning.

ICT infrastructure: These are all the computers, communications, network resources, software and hardware, and services required for operation, management and existence of an enterprise IT setting.

Level of education: It's the educational attainment or uppermost level of schooling that a person has achieved.

Pasha Centre: Digital village Project (DVP) whose significant purposes are to deliver an array of services to the people via internet linked computers. The Pasha Project's main responsibility is to provide access to information to Kenyans in the countryside areas.

1.11 Organizational of the Study

The study was structured in five chapters; Chapter One focused on the background of the study, statement of the problem, purpose of the study, the objectives and research questions of the study, significance of the study, limitations of the study, delimitations of the study, assumptions of the study and definitions of significant terms. Chapter Two reviewed literature based on the topics stemming from the intentions of the study. The chapter also contained a theoretical framework and a conceptual framework showing the association between the variables of the study. Chapter Three presented the research methodology that contained the research design, target population, sample size and sampling procedures, research instruments, data collection procedures, data analysis techniques and ethical considerations. Chapter Four had data analysis, presentation and explanation of the data and presentation of the results. Chapter Five contained summary discussions of significant records of findings, conclusions and finally recommendations drawn from the results.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

In this chapter, literature was evaluated in regards to research objectives and question of the study. The chapter recognised any research and other sources of information available that related to the objectives of the study.

2.2 Access to Government Services

Internet is deemed an important factor for both economic and social growth. The arrival of information communication technology has stirred how things are reformed and executed globally. These alterations are experienced in many service provision entities; the way universities do things, the way private companies do business, the way parties network at large and the means to which governments afford services to their citizens. E-government just like any project or programme, is confronted with difficult arrays of outside supporters of revolution which form uncertainty about general conditions and future environs. In this position it is mandatory to increase the abilities to predate and discover if not regulate conceivable future progresses that impact on the conforming adaptation of e-government approaches and e-government structures. Governments globally are managing programmes with significant monetary support for the integrating of electronic service provision to public support systems and have set very ambitious objectives. The European Commission reinforces and motivates these modernization programmes with associated benchmarking studies and its “Europe” initiative (CGEY 2004).

Kuwait has undertaken awareness campaigns concerning e-government services through organizing presentations and symposiums, and through radio, press interviews and TV as well as the e-Kuwait periodical bulletin (Al-Shayji, 2005). Nevertheless, the results directed that about 87% of participants in (Al-Shayji, 2005) research criticized absence of awareness of online services and of e-government project in general. They accused the consortium of people accountable for implementation and the media for not emphasizing

enough on the project which could be very importance and fundamentally valuable to all the people.

The e-government uptake in respect to the UN e-government survey (2014) dictates that the e-government services delivery is largely increasing but the demand side needs improvements. E-government usage averages out at 50 per cent in the countries affiliated to the Organisation for Economic Co-operation and Development (OECD) on the other hand there is huge difference in the practice of more progressive services like sending out information, downloading and attaching forms online, payment systems and robust security amongst countries. These numbers are even lower in developing countries. A number of unindustrialized countries have resolved into utilising internet access for the benefit of their subjects and disseminate information according to (Kaaya, 2004). This is particularly experienced in Asian nations (Holliday, Lu, Netchaeva, 2002) and to a slighter degree in African nations (Mutula, 2002).

The sustainability, capacity, and usefulness of Information Communication Technology for Development (ICT4D) resolutions in East Africa are certainly restricted by the unaffordable price tag of gain access to internet (Goldstein & Rotich, 2008). With so much advanced devotion in championing access to internet in Africa, why is penetration so low while costs remain so high? Gester admits that most of these programs are conceivable only with adequate infrastructure, he further intonates that teamwork should come before infrastructure: technology is not a freeway to development” (Gerster and Zimmerman, 2005).

Kenya has ranked number 119 on e-government development index out of 193 United Nations Member States as per the UN e-government survey (2012 & 2014). This shows that Kenya has remained stagnant in terms of e-government development from the UN e-government survey (2012). Kenya remains at the low levels of e-government development having EGDI of 0.3805 indicating that it is worse than the global average of

0.4712. In this case, amongst the 54 African countries, Kenya is placed within the 30 per cent (16 countries) at the bottommost 10 per cent of the global position.

The Kenyan government has a lot of e-government platforms: like websites, e-citizen platform, an open data platform enclosing government reports and census data, one-stop shops (Huduma centres) for those who require personalized IT support to interact with government services, such as online tax returns filing. However according to a survey done by (Nyambura 2015) 60% out of 120 Nairobi residents interviewed, had the privilege to have accessed e-government services online. This was more inclined to tech-savvy individuals, university students, the younger, professionals and entrepreneurs. 40% hadn't attempted to use the e-platforms as a result of lack of access to a computer, were uninformed or exhibited slow network connectivity.

Nyambura (2015) further states that the email addresses provided on different Ministerial websites were mostly inactive. Her visit to the Nairobi Huduma centre for the purpose of IT support in filling tax returns exposed a greater demand for services than the supply as only 3 desks were available to provide the service to about 250 citizens. At the Identification cards platform, the analysis was not better as only 5 desks were available to serve about 400 citizens.

2.2.1 E-government Evolution

E-government is distinctly the usage of ICT to facilitate more accessible government services, endorse extra proficient and operational government, reinforce government accountable to its subjects and allow greater public access to information. E-government may perhaps involve delivering services by use of wireless devices, community centers (self-service or facilitated by others), telephone, Internet or other public services structures. E-government indicates that a country's management knows the fact information has become an economic and social asset just as valuable and important as natural resources and traditional commodities. The biggest beneficiaries to search information are the industries and individuals who have the self-determination to

transform vital data into knowledge and further have unhindered access to its acquisition. E-government has never been a shortcut to budget savings, economic growth or well-organized government. E-government is not a single event that instantaneously changes the face of a government but rather a process that requires effort, patience and teamwork. E-government process is called e-evolution and frequently an effort that exhibits risks and costs, both politically and financially (The Working Group, April 2002).

E-government is evolving via five stages and the first stage of the government evolutionary development is identified as the “emerging stage” and it involves the presentation online information that is mainly used up internally. Frequently in this phase the websites found are static. The “enhanced stage” is the second level and is categorized by the display of public services information online. The third level is termed as the “interactive stage”, where an interactive e-government substructure is included into the platform and is able to simplify downloading of documents. The “transactional stage” is regarded as the fourth level and is regarded as a reciprocal kind of interaction in handling forms, together with verification, is conceivable. The ultimate phase is the “seamless stage” which is more advanced and manages online services such as payment transfer in an integrated setting (Sawe, 2004). According to Gartner, e-governance will evolve in parallel with the four-phase of e-governance maturity model. These phases were developed from the basis of experiences with e- governance and e- commerce in industrialized countries.

E-Governance Maturity Model (Gartner)

Early 90’s	Information	-	Presence
Mid 90’s	Interaction	-	Intake process
Present	Transaction	-	Complete transaction
Future	Transformation	-	Integration and organizational changes

Increasing value to
Citizen / Business

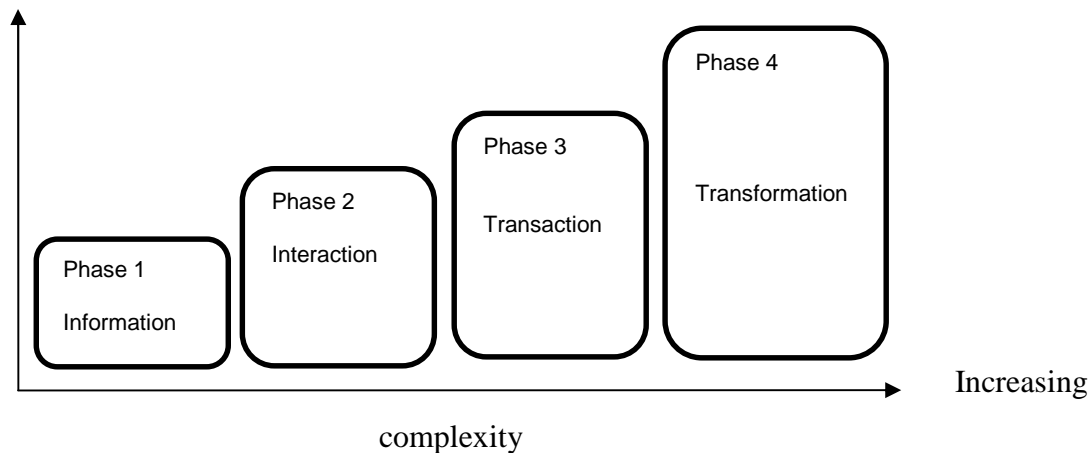


Figure 1: E-Governance Maturity Model (Gartner, 2000)

Respectively, the four stages have defined roles and each level use ICTs in government operations in one or more of their aspects of e-governance to deliver online services in business, regimes, or democracy.

E-government is beyond service delivery as it offers extra outlets of communication amongst businesses, citizens and governments collectively or otherwise separately (UN 2003). Nonetheless, E-government is transformative in nature and not just a technological phenomenon. It affects the management of organizational, technological and human resource practices. E-government is about a kind of change that benefits businesses and citizens discover prospective economic knowledge of the world. Nevertheless, in the event that e-government isn't part of a bigger platform for restructuring and reforming how government oversees information, internal functions, serves to citizens and the business community— in that case it might not yield all the advantages anticipated from the financial and time investment (The Working Group, April 2002). Subsequently, the execution of e-government will be massive transformation vitality.

2.2.2 ICT Infrastructure and Access to E-government Services

E-government services must put in place the required infrastructure like computer software and hardware and dependable telecommunications amenities for connectivity. The convenience of the infrastructure should be conjoined with human capital with the necessary expertise to gather and consolidate information to guarantee consumers' simple access to government materials online. These call for sufficient assurances from top government officers and political will for successful e-government implementation. E-government programs involve a considerable amount of financial muscle and as such, capital must be set aside to harmonize systems and initiatives, strengthen technical infrastructures and to develop and managing systems (UNDP, 2006).

Germany is regarded as a country with the most exceptional telecommunications infrastructures globally. Nonetheless, it has never been found in the top rankings of e-government, neither in the continent of Europe nor in the world (Cigdem Akkaya, Petra Wolf & Helmut Krcmar 2012). Deloitte Research study (2003) notes that e-government has the prospects to drastically reduce the amount of energy, time and income spent by citizens and businesses to act in accordance with the guidelines and principles. Some of the ways include streamlining delivery of services to citizens; giving information in one simple-to-access location; better-quality output (and efficiency) of government agencies; reducing the number of forms; enriching communications among government units and with citizens, business and industry; potential for businesses, citizens, government employees and other hierarchy of government to effortlessly acquire information and contract services from the government or its agencies; streamlining and simplifying reportage requisites; transacting (paying fees, obtaining permits) with ease; and more operative, convenient and economy delivery of services, information and expertise.

Seifert & Bonham (2003) emphasizes that execution of e-government considerably increase service efficiency by decreasing time consumed in bureaucratic issues and also saves resources. Njuru (2011) fundamental infrastructure concerns of ICTs such as submarine fiber optic cable networks that assure economical high speed connectivity and

other technical particulars concerned in execution of e-government got very little attention. The digital divide occurrence in Africa has demonstrated the situation in several ways where it is accredited to ineffective infrastructures. Bakuli (2002) notes that the electricity infrastructure required for backing up digital technology is scarce in Africa.

A study by a Fulbright Scholar from Union College, New York in the USA (Mutula 2005) on the fulfilment of students ranking at the University of Botswana using the internet uncovered one major inconvenience which was bandwidth levels. The insufficiently access to the internet was traceable to deficiencies of incoming bandwidth by computers at the University of Botswana. The bandwidth shortage could have stemmed from countless stages along the way: from the University of Botswana network out to its ISP (Internet Service Provider), from the Personal computer units hooked in the network of the University of Botswana, internet's access point from overseas (e.g. Europe and North America) into the African bulk of the network or from the country's entryway by its telecommunications support systems (the Botswana Telecommunications Corporation) to the internet away from Botswana (Gerhan and Mutula, 2004).

Botswana is not experiencing bandwidth setback alone, as the problem distresses many countries in Africa. In Malawi for example, because of low bandwidth access to the worldwide web is time-consuming and affects the value of information. (Mwiyeriwa and Ngwira, 2003) observes that, despite the varied multiplicity of electronic resources that were accessible through the Programme for the Enhancement of Research Information (PERI) project of the International Network for the Availability of Scientific Publications (INASP) and the Health Inter-Network (HINARI), the value of internet connectivity was frequently interrupted in university libraries in Malawi.

Mutula (2002) lists the glitches that challenge African countries in accessing and creating e-government services observing discrepancy in infrastructure growth between rural and

urban parts; the latter getting the preference. ICT infrastructure is distinguished as the biggest drawback in e-government. The functioning of Internet is a prerequisite for suitable distribution of information and introduction of new channels of services delivery and communication (Ndou, 2004). An architecture providing harmonized administrative models, principles and standards, is compulsory for a transformation to electronic government to transpire. (Sharma & Gupta 2003) point out that technology infrastructure is strongly required to facilitate execution of the whole e-government framework.

Governments must consequently develop an effectual telecommunication infrastructure so as to deliver e-government services. Additionally, success of e-government execution is influenced by how different infrastructures are capitalized with an integrated focus and the capacities of their structures. (Mungai, Alfred, 2012) outlined ICT infrastructure development as one of the challenges being faced by the government of Kenya in the quest to implement e-government program. They further specified that there is some reluctance in government concerning development of ICT policies to direct the ministry in expanding their ICT infrastructure.

2.2.3 Level of Education and Access to E-government Services

The capability to make use of the Internet and computers has turn out to be a vital success cause in e-government execution, and the deficiency of such expertise might result to social exclusion or marginalization (UNPA & ASPA, 2001). Africa exhibits intricate complications in digital divide by merit of its dispersion of mixed values and ethnic clusters. For instance, none of the so many Africa languages practically constitutes the language of computing and internet (Mutula 2005). A research tabled by (Tomas Rivera Policy Institute, 2002) in the USA showed that people with great English-speaking skills led their limited English-speaking equivalents in access to the internet and computers. In that time, it was projected that English stood as high as 80 per cent in computer-based communication (Warschauer, 2001). In sub-Saharan Africa, consequently, a huge percentage of native individuals could neither read nor write in English, hence becoming underprivileged as probable users of computers.

A thorough assessment of e-government services embracing in Saudi Arabia indicate that lack of awareness and capability to use technology and computers efficiently was the principal obstacle that and was ranked most highly at (68.3%). (Kumar 2009) Education is a procedure of acquiring knowledge for useful application while knowledge is actualities attained from consultations, peers, extensive reading and good education. (IJACSA 2012) the capability of people to efficiently make use of the Internet and computers is a decisive achievement reason in e-government programs, and the absence of such kind of expertise may result to social exclusion or marginalization. Africa's literacy shortage, challenges content use and creation. This generates other difficulties like minimal expertise who can code content, and yet they are of great demand universal. The continent suffers setbacks when expertise are absorbed in other regions like the USA and Europe due to lack of competitive enticements to IT expertise and web content developers as incentives offered and remuneration packages are worthwhile (Macfarlane and Daniels, 2001).

As the popularization of the civil society grows, people should feel the need to participate in the contribution, regarding e-services and new solutions within the scope of e-administration. E-government transformation is characterized by the growth of demand through education and supply through the construction of contents for the provided e-services. More frequently, one may observe the common belief presented in literature, which says that the pointers of the proficiency and success of a country functioning are numbered by quality of the services rendered by their electronic means. To achieve the said objective, it is compulsory to stimulate the growth of digital literacy competences among citizens and on every level of the operating public administration.

A recent study by Elitsa Lozanova-Belcheva, (2013), still maintains that lots of citizens have difficulty understanding e-government services which is consequence since they are deficient in technological literacy (information and computer literacy), in Internet and computers access, or have not been acquainted with government organization and information. In 2013, the general level of digital literacy among the citizens of EU

countries was found among about 25.7% of people. It is assumed, that digital literacy is amongst reasons which determine the expansion of e-government, (Agnieszka Agata Tomaszewicz, 2015). (Nugi 2012) absence of computer literacy among businesses, citizens and government is parts of the problem and a lot of ICT training has to be executed to mitigate this eminent gap.

ICT skills are commonly found in young people more than the elders who are not conversant hence cannot embrace e-government. Government employees pose an even greater problem as many may lack the ICT skills and yet they are supposed to make the e-government to run efficiently and smoothly. It is sensible to observe that digital Literacy is fundamental in the bridging or mediation of e-government and common people. To achieve better governance ICT must become a tool for intervention between common people and e-government. The technologies connection to each other helps to create a more transparent government where if required, it can be used in allowing voters to immediately evaluating their representation in the policy making, implementing new policies, e-governance and administration decisions. The transparency of government will give direct involvement and power to the public to hold elected administrators or public employees answerable and evaluate their actions through e-governance, (Dr. Anil Rajput & K. Mani Kandhan Nair, 2013). Low literacy rate hinders the accessibility of G2C (Government to Citizen) services and has become a severe obstacle for the execution of e-government in Africa. To completely appreciate the benefits of e-Government citizens need to know how to read, write and also possess basic ICT literacy (ITU, 2006).

2.2.4 Economic Status and Access to E-government Services

The UN e-government survey (2001), states that there is rising worry that e-government will only aggravate the digital divide and additional freeze out the disadvantaged. Amongst the causes for this is the aspect of governments prioritizing program development centering on limited resources thus focusing on sectors that are more likely to use e-government. In unindustrialized countries and specifically African ones, the digital divide is thoroughly joined to the relative commercial atmosphere of the

individual countries. Countries with flourishing markets are largely linked to better access to ICTs when matched to those whose economies are performance poorly (Nua, 2002). African countries basically symbolize the foundation of the world's poverty. For example, the World Economic Forum projected Africa's gross domestic product (GDP) in 2004 only accounting for 1.5 per cent of global GDP (World Economic Forum, 2003).

Feng (2003) mentioned that the biggest barrier to e-government growth was the lack of access to internet among certain sections of the population. Certainly, this lack of access amongst low-income or vulnerable people inhibits them from using those services specifically provided for them. UN (2008) survey established that an increase in digital divide in unindustrialized countries increased the rate of technical hurdles in presenting and supporting e-government services. There is a skeptical insight on the part of some decision-makers that those without access will never have the enthusiasm or aspiration to accept and benefit from e-government programs, regardless of what hardware, incentives or services are provided.

ICT Board (2010): “The ICT sector is presently dynamic in cities than countryside and as a result widespread regional inequalities are exhibited while diffusing ICT facilities. To address this inconsistency, the Kenya ICT Board (KICTB) is supportive in the introduction of new “electronic centres” which are termed as Pasha Centres or digital villages while present e-centres might be improved. Pasha Centres are centers that deliver a group of services to the public by consuming and publicizing other ICT-enabled applications or via internet connected computers. A fundamental prerequisite for this venture is to organize and oversee a Digital Village Revolving Fund (DVRF) that will advance loans to entrepreneurs to assist them institute the PASHA centres. Additionally, the Kenya ICT Board is expected to assist with technical support and training to the thriving PASHA entrepreneurs.

The digital divide was initially contemplated as a focus of access to pertinent technology infrastructure and information but it’s now progressively revolving around competence

and capability to use and access ICT. The digital divide evolves from comprehensive commercial difference and at the derivation are social and economic inconsistencies amongst individuals, groups and countries which influence their capacity to use and access ICT to encourage prosperity and development. In such circumstances the digital divide continues to affects people both in developing and developed countries in various forms (United Nations E-government Survey, 2014). The UN 2014 survey maintains that many countries fall in the lowest third of the Online Service Index (OSI), and there is a notable broadening gap between the e-government 'haves-nots' and the 'have' as technology keep on evolving. The (2014) UN e-government survey articulates that the income concentration of a country is a common pointer of economic progress and capacity, which thus impacts its e-government progress. Education provision, including ICT literacy and access to ICT infrastructure, connects to the revenues level of a nation. Lack of these dynamics impedes the execution of e-government initiatives.

2.2.5 Cultural Factors and Access to E-government Services

Cultural differences are capable of affect how people interrelate with technology (Straub, 2003). Whilst the culture of the inventor is usually within any new technology the receiver's culture may not necessarily be compatible (Loch, 2003). It is commonly understood that cultural and social standards impact the acceptance of Information and Communication Technologies (ICT), (Cigdem Akkaya, Petra Wolf & Helmut Krcmar, 2012). Subjective situations and individual characteristics are somewhat affected by cultural dynamics than are the impartial environs encircling the distribution and development of fresh technology. Individual behavior and cultural standards forms play a part in how policy makers and citizens use technology. Because culture plays a substantial character in an individual's viewpoint, numerous individuals struggle with alteration and adoption of new technologies gradually and with notable reflection (Feng, 2003).

According to Margetts, and Danleavy, (2002), cultural features of citizen's guides their insight towards e-government acceptance and adoption. Margetts, and Danleavy reasoned

that there exist 3 sets of cultures that co-exist in public area. These cultures are: -, political, scientific and bureaucratic cultures. All these cultures co-exist and are intertwined either easily or with pressure. These cultures should be envisioned in the designing of e-government applications for them to be successful. The growth of a conviction in beliefs rest on the social customs and morals that direct popular conduct and principles. Each culture's communal programming lead to diverse cultural standards which unswervingly impact the conclusion mechanisms expended to select whom and whether to trust. Bridges.org (2001) suggests that: "...distinctive historical and cultural atmosphere of a state need to be described as part of a national ICT strategy to accurately measure the country's e-Readiness for the future."

To prevail on cultural disinterest is amongst the core challenges to e-government execution in unindustrialized countries (Ndou, 2004). Heeks, (2003) asserts that the disparity felt between the strategy and actuality of information systems application is one of the key motives behind e-government projects miscarriage amongst unindustrialized countries. Any kind of change exhibited in a society is usually encountered by some kind of opposition and the move from paper based service to e-service is squarely affected by cultural resistance.

Culture affected the adoption of IT in every society says Bagchi, Hart and Peterson, (2004). Evans and Yen, (2005) emphasizes that e-government "must conserve the integrity and freedom of its populations and as a repository of their unique and individual social legacy". Chen (2006), in a report linking the embracing of e-government in developing and developed countries, established that the cultural beliefs of some unindustrialized countries can affect their inhabitants' usage of e-government. They believe that such people especially those with particular religious being of specific backgrounds or opinions, may not perform certain actions that are ordinary in industrialized countries.

There is a vital necessity for new procedures of cooperative guidance and collective administrative culture that include manipulating values, mindsets, actions and attitudes in the public sector by noticeable directorial leadership and principles according to United Nations e-government survey (2014). Moreover, it's significant that government representatives, principally at the local level, have the applicable skills, approaches and capability to connect notions from various communities and to involve people through new collective modalities and avenues. This is vital since the local governments are the mediators between people and the government.

2.3 Theoretical Framework

This study will be anchored on the theory of technology acceptance model along with the theory of change. These theories have been selected because of their explanations on acceptance of change and service delivery in a technologically defined setting and any other environment. The Technology Acceptance Model (TAM) is an information systems theory which is a replica of how operators come to agree to consume technology. The paradigm proposes that when operators are bestowed with a new technology, some issues sway their conclusion on when and how to practice it.

In 1985, Fred Davis suggested the Technological Acceptance Model (TAM) in his doctrine thesis at the MIT Sloan School of Management (Davis, 1985). He projected that the method used create a reaction that is predicted or explained by user stimulus, which is openly inspired by outside stimulus entailing the real system's capabilities and descriptions. Davis additional redefined his conceptual model to Technological acceptance model as revealed below;

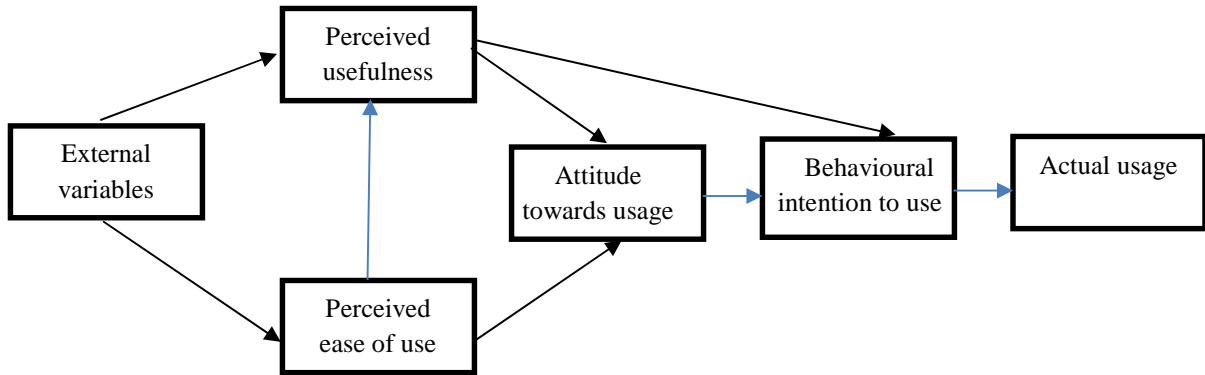


Figure 2: Original technology acceptance model (TAM) (Davis, 1989)

TAM deals with the acceptability forecast of an information system. TAM is an adaptation of the Theory of Reasoned Action (TRA) to the sphere of information systems (Brown and Venkatesh, 2005). The purpose of this model is to find out the alterations which must be brought to the system in order to make it user friendly and to forecast the acceptability of a tool. The redefined model emphasized three factors that describe user stimulus; Perceived ease of use, perceived usefulness and Attitude towards using.

Perceived usefulness (PU) –Fred Davis described this as "the level of confidence that an individual has in using a certain system his or her job performance would be enhanced".

Perceived ease-of-use (PEOU) – Davis defined this as "the point at which a person believes that using a certain system would be free from effort" (Davis 1989).

Attitude towards usage (ATU) – This is an individual’s negative or positive feelings on exploiting the technology.

According to Bagozzi, Davis and Warshaw, the society develops different attitudes and objectives while studying the use of new technology before introducing focusing on using it. This is so because an issue of complexity exists in decision maker’s minds in respect to the effective adoption of new inventions like personal computers which are termed complex. Attitudes towards objectives to use and usage may be lacking in principle or subjective or may occur just when introductory attempts to acquire skills on how to use the technology evolve. Therefore, usage might not be an immediate or direct significance of such intentions and attitudes. (Bagozzi, Davis & Warshaw 1992).

The technology acceptance model is a theory that fits in this study in that people must go through the three steps outlined by Davis to be able to embrace e-government programme. Technology acceptance model is valuable in analytical method as it helps in assessing the prospect of organisations and people to accept a certain new technology, or as an assessment technique to evaluate reception of technology presently in use (Turner, 2010).

The theory of change describes how actions are assumed to create a sequence of outcomes that play a part in accomplishing the ultimate envisioned impressions according to Rogers (2014). These results are demonstrated as desired effects, organized graphically in a causal framework. The theory of change illustrates the kinds of mediations (a singular package or harmonized initiative) that bring about the results represented in the outcomes framework map. For each, interference is entangled with an outcome in the causal framework, illuminating the regularly intricate web of actions essential for change. The framework delivers a working model in contrast with the test assumptions and hypotheses about what activities will best be yielded as the outcomes in the model. Rationales in a theory of change define why one outcome is needed to realize another and the connections between the outcomes. For convenience of e-government services to be possible people will have to go through learn phases to adopt, comprehend and use the programme. Theory of change comes in handy in the planning process of the e-government programme where its specific goals are outlined and require specific input, and implementation strategies are required to achieve specific output and outcomes.

2.4 Conceptual Framework

The conceptual framework in Figure 3 is the diagrammatic presentation of the affiliation amongst the dependent and independent variables.

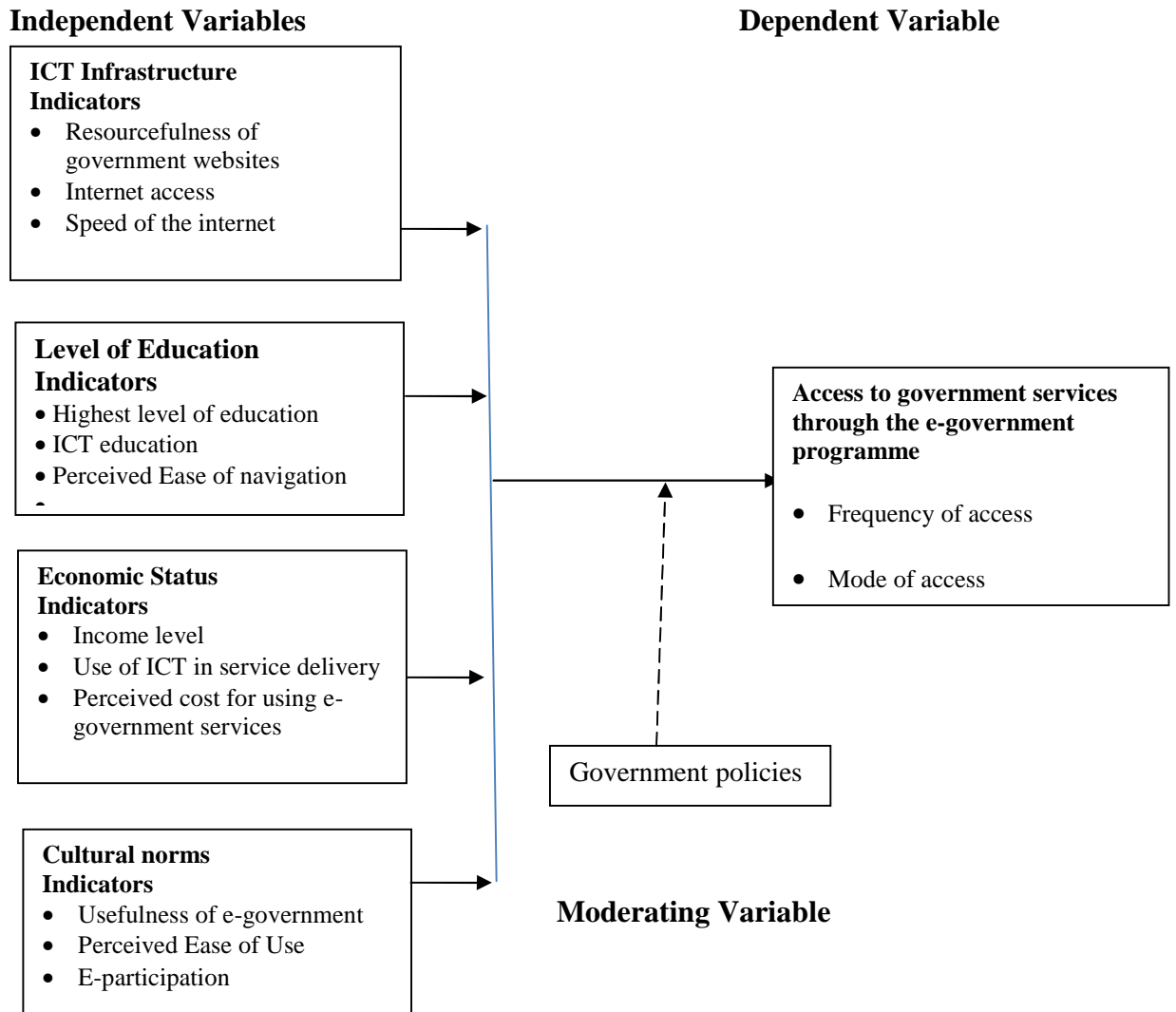


Figure 3: Conceptual Framework

2.5 Knowledge Gap

The essence of any e-government initiative is to incorporate ICT in government services to increase citizen's participation in issues of administration and governance and consequently experience more interaction (Noelly and Saleh, 1989). E-government is evolving and in spite its potential, the realization of its full potential in Kenya is yet to be progressive. Significant challenges in terms of internet confidentiality, access and costs related to the execution of ICT solutions require addressing (Hellström, J., P.E Tröften 2010). Over a billion people worldwide can use new information and communication technologies for good governance and growth have access to the internet. Nevertheless, a huge majority of the world's population is cut off from these innovations tools and are still without internet access (Spider, 2010).

E-government implementation realization is 80% concerned with people and organizational processes while 20% is technology based (Shajari and Ismail, 2010). Heeks (2006) articulate that 80% of the global populace live in unindustrialized countries, yet these replicate only 20% of users of e-government services. Implementation of e-government is a critical part of e-government accomplishment in unindustrialized countries, so as to offer social and economic welfares for inhabitants. Amongst the motives involved in the miscarriage of e-government execution in unindustrialized countries is pointed out by Heeks (2003) as actuality the discrepancy amid the reality expected and the strategy to achieve the same. In spite of the benefits flaunted globally for executing e-government, research presented no suggestion that any of the Kenyan e-government's objectives: promoting efficiency among public servants, cultivating information currency to people, encouraging citizens' participation, enhancing delivery of public services has been achieved (Njuru, 2011). For that reason, the study sort to examine the factors influencing access to government services through e-government programme.

2.6 Summary

Literature review layout was directed by the research objectives as well as the dependent variable. In this chapter, the study sort to evaluate research involving right to use government services, the evolution of e-government programme and how ICT infrastructure, level of education, economic factors and cultural factors affected access to government services through the e-government programme. The study properly quoted the relevant researches in wherever their work has been mentioned.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter focused on the research design, target population, sampling procedures, data collection procedures, tools and techniques of data collection, validity, reliability, methods of data analysis, operational definition of variables and ethical consideration.

3.2 Research Design

The study adopted a descriptive survey research design. The design was chosen since it is more accurate and precise as it involves explanation of current status of actions in a carefully articulated way. Descriptive survey research design is meant to realize the who, when where and how of an occurrence so as to construct a summary (Mugenda & Mugenda, 2003). The research design was preferred since it was capability of generating a profile regarding a phenomenon. The researcher relayed on current information available in regards to the e-government programme in Starehe sub-County.

3.3 Target Population

The population consisted of all the individuals/ subjects/likely circumstances that were examined. The research study was done in Starehe Sub-County because it is a cosmopolitan area and it represented all the ethnic backgrounds of Kenyans. The people selected were above 18 years of age and of any genders. There were no exclusion of any ethnicity but the study insisted on citizen and residents with identity cards as the focus here was on the accessibility of government services through the e-government programme. According to Kenya National Bureau of Statistics (KNBS) on Kenya Population and Housing Census (2013) report, Starehe Sub-County has a population of 274,607 people.

3.4 Sampling Procedure and Sample Size

This are the techniques used to determine how to generate the sample size from the larger population.

3.4.1 Sample Size

A research sample is a subsection or representative percentage of the target population; sampling is that method of choosing and settling on a group of subjects for a study in a way that the subjects appear to represent the greater population. Sampling theory says that an appropriately taken sample of a correct size will produce results that can be practical to the whole population. The study shall estimate the sample size using Krejcie and Morgan method.

Based on Krejcie and Morgan's (1970) table for determining sample size, a population which is equal to or greater than 250,000 require a sample size of 384.

3.4.2 Sampling Procedure

The researcher adopted simple random sampling which is a probability sampling technique. This is a technique where the subjects of research are selected entirely by chance from the larger group (population). Starehe Sub-County has a population of 274,604 and they are all distributed in to six wards and through them we were able to get the unbiased sample size as tabulated below;

Table 3.1: Sampling representation table

WARD	POPULATION DISTRIBUTION	PERCENTAGE REPRESENTATION	SAMPLE (384) REPRESENTATION
Nairobi Central Ward	63,325	23%	88.6
Ngara North Ward	35,344	13%	49.4
Pangani Ward	37,262	14%	52.1
Ziwani/Kariokor Ward	18,467	7%	25.8
Landimawe Ward	36,574	13%	51.1
Nairobi South Ward	83,632	30%	116.9
TOTAL POPULATION	274,604	100%	384.0

Given a sample size of 384 from a population of 274,604 we first got the percentage representation of each ward against the total population and later used the percentage result to assess the number of people per ward to represent the whole population in the sample size.

3.5 Research Instruments

Data collection is the procedure of collecting and evaluating information on targeted variables in a recognized systematic fashion, which then permits one to answer pertinent questions and assess the outcomes. We used a survey approach by developing a questionnaire for this study. The questionnaire was designed based on the research conceptual model.

The questionnaire comprised of open and closed ended questions. The close-ended questions were delivered in a more structured reply to enable concrete recommendations. The open-ended questions were responsible for providing the additional information that had not been obtained in the close-ended questions. The questionnaire was divided into two sections. The initial section concentrated on the demographic data of the respondents while the second section concentrated on the factors influencing the access to government services through the e-government programme.

3.5.1 Pilot Testing

The piloting procedure was done in Kajiado Town which is a cosmopolitan area. The study identified a similar setting as that of the actual survey. The piloting was done by taking 10% of the sample size, (Mugenda & Mugenda, 2003). A pilot study is done when a questionnaire is to be dispersed to a large population and particularly before beginning the authentic survey with minute chance to be bias in the survey, which is conceivable in an interview process. The purpose of the test was to refine the questionnaire, and to avoid blunders that could distress the respondent's involvement or the method of analysis. It also focused on looking into minor mistakes like inconsistent wording, spellings errors,

unsuitable demands for demographic information, overlapping questions, incorrect or missing instructions, lack of motivational techniques as well as the length of the survey.

3.5.2 Validity of the Instrument

Authenticating the content of a concept entails making sure that the questions (items) in the instrument conform their corresponding hypothesis. Any study is liable to factors which, while unnecessary to the concerns of the research, can invalidate the findings. The study will employ both content and construct validity. Content validity was done through expert opinion and consultation with the supervisor while Construct validity was done by comparing what was achieved from the pilot study. This established the accuracy and consistency of the questionnaire as all the anomalies were rectified.

3.5.3 Reliability of the Questionnaire

Reliability is the percentage at which outcomes are dependable throughout and are accurate feedback of the total population under study. The research instrument is well thought-out to be consistent if the outcomes of a study can be replicated in a similar methodology. This characteristic of the instrument is in fact referred to as stability. If we deal with a steady measure, then the outcomes should be parallel. A high percentage of stability signifies the repeatable outcomes.

The consistency of this research was governed by two procedures, the Cronbach coefficient alpha, which is usually a collective technique of gauging the similarity amongst items, and the split half method. To warrant efficiency and reduce deficiencies of a questionnaire, a pre-test was performed on a different area with similar characteristics to the actual sampling area. To ensure reliability the research employed the split half technique in which the instruments were administered to two different group subjects. This is an evaluation of internal consistency in which it looks at how associated a set of objects are in a group. The Cronbach coefficient alpha assessment contrasts from 0 to 1, but good reliability should create a coefficient merit of at least 0.70 (Pallant, 2001).

3.6 Data Collection Procedures

An authorization from NACOSTI (National commission for Science, Technology and Innovation) was obtained to facilitate the study. A proper letter introducing the study was also drafted and presented to the respondents during data collection. The letter explained the purpose of the study and was attached on the front page of the questionnaire. A letter from the University of Nairobi was also obtained to validate the study and make it easy for respondents to accept participation. The respondents were given adequate time to fill the questionnaires and research assistances were available to help respondents who had difficulty in filling the questionnaire on their own.

3.7 Data Analysis Techniques

According to Westbrook, (1994), data analysis involves reducing and examining the collected data in order to reveal any patterns, relationships and trends that exist. The objective of data analysis is to find usable and useful information among the data collected. Analysis and interpretation of the collected data was done using statistical package for social sciences package (SPSS). The information collected was presented in frequency tables.

3.8 Ethical Consideration

This research was done in accordance with the laws of research in the University of Nairobi and further governed by the laws of Kenya. This study offers knowledge for the enhancement of e-government access and connection between the citizens and the government. The researcher will report honestly to and from the research contributors to uphold the uniqueness of knowledge.

The researcher was of integrity and respectful to participants as they were fully informed of the aim, methods, anticipated benefits and the hazards of the study. There was no form of coercion used and the questionnaires avoided any phrases or words that were inappropriate to the respondents.

We exercised confidentiality and fairness with each participant. They also had the right to abstain or participate in the study or even terminate their engagement. The questionnaire questions were all the same for fairness and quality results from participants of the study population.

3.9 Operational Definition of Variables

An operational definition is a consequence of the procedure of operationalization and is used to explain variables in relations to the process or a set of validation tests required to regulate its actuality, period and magnitude. The necessity for operational definitions is important when gathering all types of data as data that is not distinct will usually give an inaccurate result and be unreliable. It is easy to presume that those gathering the data comprehend what and how to comprehensively do task. However, people have their own different interpretations and opinions which influence the data collection.

Table 3.2: Operational Definition of Variables

Objectives	Variables (Independent)	Indicators	Measurement scale	Tools of analysis
Infrastructure influence on access of government services through e-government services.	Infrastructure	Resourcefulness of government websites Internet access Speed of the internet	The number of people reached by internet The number of people reached by power	Frequencies Percentage
Level of education influence on access to government services through e-government services	Level of education	Highest level of education ICT education Perceived Ease of Navigation	Training Profession	Frequencies Percentage
Economic status influence on access to government services through e-government services	Economic status	Level of income Use of ICT in service delivery Perceived cost for using e-government services	The average income of an individual per month Services delivered using ICT	Frequencies Percentage
Cultural factors influence access to government services through e-government services	Cultural norms	Usefulness of e-government Perceived Ease of use E-participation	Adaptability Usability	Frequencies Percentage
	Variables (Dependent)	Indicators	Measures	Tools of analysis
	Access to government services through the e-government programme	Frequency of accessing Mode of accessing	Growth rate of internet use	Frequencies Percentage

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION OF FINDINGS

4.1 Introduction

This chapter provides the examination of data, interpretation and presentation based on findings of the study on the factors influencing access to government services through e-government programme in Starehe Sub-County, Nairobi County, Kenya. This chapter systematically examined and outlined the finding as articulated in the questionnaire.

4.2 Questionnaire Return Rate

The sample study was 384 respondents who were randomly selected in Starehe Sub-County. From the 384 questionnaires administered, 271 of them were completed and submitted back. This represents 71% response rate which is a good turnout make a case for the study. According to Mugenda and Mugenda (2003) a response return rate of 70% is very good.

4.3 Demographic Characteristics

The study considered location, age and gender as demographic characteristics that were applicable with the respondents and that will help in redefining the responses. The results are represented below in table 4.1 and table 4.2.

4.3.1 Distribution of Respondents by Location

Location of the respondents was very important as our sample size was narrowed down to specific wards in Starehe Sub-County.

Table 4.1: Distribution of respondents by location

DESCRIPTION	FREQUENCY	PERCENTAGE
Nairobi Central Ward	35	20%
Ngara North Ward	34	20%
Pangani Ward	32	19%
Ziwani/Kariokor Ward	21	12%
Landimawe Ward	10	6%
Nairobi South Ward	39	23%
TOTAL	171	100%

Table 4.1 indicates that we had 20% of the respondents from Nairobi Central Ward and another 20% from Ngara North Ward, 19% from Pangani Ward, 12% from Ziwani/Kariokor Ward, 6% from Landimawe Ward and 23% which was the highest from Nairobi South Ward.

4.3.2 Distribution of Respondents by Age

Age is a factor that helps in determining a lot in the society as it dictates the experience, level of maturity and different outlooks on life of individual.

Table 4.2: Distribution of respondents by Age

Age in years	Frequency	Percentage
18 – 28 Years	96	35%
29 – 39 Years	85	31%
40 – 49 years	56	21%
Above 50	34	13%
TOTAL	271	100%

According to Table 4.2, age 18 – 28 Years and 29 – 39 Years were highest represented by 35% and 31% respectively while the least was people between 40 – 50 years and above 50 years with 21% and 13% respectively.

4.3.3 Distribution of Respondents by Gender

Gender of the respondents is an important demography as it gives us the factors on the ground in relation to women and men. Table 4.2 presents the gender of the respondents as follows;

Table 4.3: Distribution of respondents by gender

Description	Frequency	Percentage
Female	137	51%
Male	134	49%
TOTAL	271	100%

There were more female respondents represented by 51% than male respondents who were 49%.

4.4 Infrastructure Influence on Access of Government Services Through E-government Services

This examined the influence of e-government infrastructure in accessing e-government services. E-government infrastructure was categorized as resourcefulness of government website, internet access and speed of the internet.

4.4.1 Resourcefulness of E-government Platforms

Table 4.4 determines the resourcefulness of government websites as perceived by the respondents.

Table 4.4: Resourcefulness of e-government platforms

DESCRIPTION	FREQUENCY	PERCENTAGE
Reliable	68	40%
Very reliable	38	22%
Unreliable	65	38%
TOTAL	171	100%

According to the respondents 40% of them found e-government platforms reliable, 22% extremely reliable while 38% found them unreliable. This indicates that 62% of the respondents were able to get proper information and communication from e-government platforms.

4.4.2 Internet Access

Table 4.5 seeks to examine the number of people accessing internet in Starehe Sub-County.

Table 4.5: Internet Access

DESCRIPTION	FREQUENCY	PERCENTAGE
Yes	96	56%
No	20	12%
Sometimes	55	32%
TOTAL	171	100%

According to 4.5 56% of the population in Starehe Sub-County access the internet regularly, 12% have no access to the internet while 32% are able to access but irregularly. This indicates that the Kenyan government has ensured proper penetration of internet to the masses in the city as well as the slums.

4.4.3 Speed of the Internet

Speed of the internet is another factor that was used to determine the influence of infrastructure in accessing e-government services. Table 4.6 analyzes this factor.

Table 4.6: Speed of the internet

DESCRIPTION	FREQUENCY	PERCENTAGE
Reliable	80	47%
Very reliable	76	44%
Unreliable	15	9%
TOTAL	171	100%

Table 4.6 notes that 47% of the respondents found the speed of internet being reliable while 44% and 9% found the internet very reliable ad unreliable respectively. This clearly shows that the speed of internet in Starehe Sub-County is extremely reliable as 91% of the respondents agreed to it.

4.5 Level of Education Influence on Access to Government Services Through E-government Services

The second research question examined the influence of level of education in accessing e-government services in Starehe Sub-County. The indicators seek to know the highest level of education of an individual and proficiency in ICT.

4.5.1 Highest Level of Education

To examine the influence of level of education in accessing e-government services in Starehe Sub-County we decided to explore the highest level of education for each participant. Table 4.7 records the results.

Table 4.7: Highest level of education

DESCRIPTION	FREQUENCY	PERCENTAGE
Primary level	16	9%
Secondary level	34	20%
Graduate	89	52%
Post graduate and above	32	19%
TOTAL	171	100%

As per Table 4.7 52% of the respondents have graduated, 20% were secondary leavers, 19% were post graduates and 9% of the respondents had only finished primary education. This clearly shows that 71% of the respondents were graduates and therefore competent enough to engage with the e-government platforms.

4.5.2 ICT Education

Another factor that was used to determine the influence of education in accessing e-government services was respondents' knowledge in ICT. Table 4.8 below categorizes the levels of ICT education and the results from the respondents.

Table 4.8: ICT education

DESCRIPTION	FREQUENCY	PERCENTAGE
Basic knowledge	80	47%
Intermediary Knowledge	46	27%
High level Knowledge	33	19%
None of the above	12	7%
TOTAL	171	100%

Table 4.8 asserts that most respondents had basic knowledge of ICT education with 47%, the persons with intermediary knowledge had 27% while the ones with high level of education had 19%. Only 7% lacked any Knowledge of ICT. This indicates that 93% of the respondents had at least basic knowledge of ICT and therefore capable of using the e-government platforms.

4.5.3 Perceived Ease of Navigation

Table 4.9 below examines how ease in navigation is instrumental as an indicator for shaping how the level of education is influential in accessing e-government services.

Table 4.9: Perceived ease in navigation

DESCRIPTION	FREQUENCY	PERCENTAGE
Easy to navigate	86	50%
A bit complex	45	26%
Really complex	31	18%
None of the above	9	5%
TOTAL	171	100%

According to table 4.9 50% of the respondents find the e-government services easy to navigate, 26% find them a bit complex, 18% really complex and 5% didn't have an answer.

4.6 Economic Status Influence on Access to Government Services Through E-government Services

Economic status was one of the factors that was analysed to establish its consequence on access to e-government services. The level of income, use of ICT in service delivery and perceived cost of using e-government services were the indicators examined as follows;

4.6.1 Level of Income

Level of income is one of the indicators to determine the influence of economic status in accessing e-government services. Table 4.10 analyzes the level of incomes of the respondents.

Table 4.10: Level of income

DESCRIPTION	FREQUENCY	PERCENTAGE
Below Kshs. 20,000	49	29%
Kshs. 21,000 – Kshs. 50,000	60	35%
Kshs. 51,000 – Kshs. 100,000	37	22%
Kshs. 101,000 – Kshs. 200,000	18	11%
Above Kshs. 200,000	7	4%
TOTAL	171	100%

Table 4.10 states that 29% of the respondents earned below Kshs. 20,000, 35% of them were between Kshs. 21,000 - Kshs. 50,000 and 22% were between Kshs. 51,000 - Kshs. 100,000. Only 11% were in category Kshs. 101,000 - Kshs. 200,000 and 4% above Kshs. 200,000.

4.6.2 Use of ICT in Service Delivery

Use of ICT in service delivery was the second indicator examined to determine the influence of economic status in accessing e-government services. Table 4.11 below looks puts together the reactions from the respondents.

Table 4.11: Use of ICT in service delivery

DESCRIPTION	FREQUENCY	PERCENTAGE
All the time	43	25%
20-30% of your transactions	25	15%
50% of your transactions	37	22%
70-80% of your transactions	44	26%
None	22	13%
TOTAL	171	100%

Table 4.11 asserts that 26% and 25% of the respondents would use ICT to transact 70-80% and all the time respectively. 22% would mostly transact 50% using ICT, 15% would use ICT on 20-30% of their transactions while 13% didn't use ICT in service delivery at all. This shows that 87% of the respondents were able to use ICT in some of their transactions.

4.6.3 Perceived Cost for Using E-government Services

The affordability of e-government services was another indicator that was examined to establish the influence of economic status in accessing e-government services.

Table 4.12: Perceived cost for using e-government services

DESCRIPTION	FREQUENCY	PERCENTAGE
Affordable	101	59%
Unaffordable	38	22%
Inflated	32	19%
TOTAL	171	100%

Table 4.12 above indicates that 59% of the respondents found the cost of accessing e-government services was affordable, 22% found it unaffordable while 19% found it inflated.

4.7 Cultural Factors Influence on Access to Government Services Through E-government Services

Culture of governments, individuals and organizations tend to influence our decisions in every day society. Therefore, the researcher chose to examine how cultural factors influence access to e-government services.

4.7.1 Usefulness of E-government Programme

The perceived usefulness of e-government programme is one indicator that will help us examine the influence of cultural factors in accessing e-government services.

Table 4.13: Usefulness of e-government Programme

DESCRIPTION	FREQUENCY	PERCENTAGE
Useful	85	50%
Very useful	76	44%
Useless	10	6%
TOTAL	171	100%

Table 4.13 point out that 50% of the respondents find e-government programme useful, 44% find it very useful and lastly 6% find it useless. This indicates that 94% of the respondents found e-government programme relevant in their day today activities.

4.7.2 E-participation

E-participation is the aspect of governments involving citizens through the ICT. Citizens participate in civic affairs, governance and policy making. The table below tabulates how people perceive their level of dialogue with the government.

Table 4.14: E-participation

DESCRIPTION	FREQUENCY	PERCENTAGE
Prompt and informative interaction	46	27%
Delayed interaction but helpful	58	34%
Delayed interaction and inadequate	43	25%
No interaction	24	14%
	171	100%

Table 4.14 states that 34% of the respondents find e-participation with delayed interaction but helpful, 27% think the communication in e-government platforms are prompt and informative while 25% think that the communication is delayed and also inadequate. 14% of the respondents felt there was no interaction completely when it came to e-participation.

4.7.3 Perceived Ease of Use

Table 4.15 below examines how ease in use is influential as an indicator in determining how the cultural factors influence access to e-government services. The respondents give feedback on the degree of how they find the e-government easy to use.

Table 4.15: Perceived ease of use

DESCRIPTION	FREQUENCY	PERCENTAGE
Strongly agree	83	49%
Agree	75	44%
Disagree	13	8%
TOTAL	171	100%

Table 4.15 states that 49% of the respondents strongly agreed that it was easy to use e-government services, 44% agreed while 8% disagreed.

4.8 Access to Government Services Through the E-government Programme

Access to government services through the e-government programme is paramount in this study. The researcher chose the frequency and mode of access as indicative measures to be analysed and were presented in table 4.15 and table 4.16 below.

4.8.1 Number of Times you Access E-government Services

The table below presents the outcomes from the respondents in respect to the frequency of access to e-government services rather than the traditional face to face.

Table 4.16: Number of times you access e-government services

TRANSACTIONS	FREQUENCY	PERCENTAGE
All the time	58	34%
Less than 50%	43	25%
50%	24	14%
More than 50%	32	19%
None	14	8%
TOTAL	171	100%

Table 4.16 above indicates that 34% of respondent's access e-government services at all times, 25% access e-government services in less than 50% of their work, 14% on 50% of

their work, 19% on more than 50% Of their work and 8% didn't use e-government services. This shows that 92% of the respondent's access e-government services at some point.

4.8.2 Mode of Access

The following table shall express how the respondents access-government services.

Table 4.17: Mode of access

DESCRIPTION	FREQUENCY	PERCENTAGE
Face to face	41	24%
Use an agent	49	29%
Online	72	42%
None of the above	9	5%
TOTAL	171	100%

Table 4.17 indicates that 42% of the respondent's access e-government services online, 29%use agents, 24% still prefer the traditional face to face while 5% did not access e-government services.

4.9 Challenges Experienced while Accessing E-government Programme

The respondents acknowledged that they faced challenges usually while accessing e-government programmes. Lack of awareness and knowledge on e-government programme scored the highest percentage of 33% (56), lack of privacy and security of information had 26% (44), lack of enough personnel/ attendants 19% (32), and infrastructural weakness was mentioned by 27 (16%) respondents and lastly cultural barrier had 7% (12) of the respondents.

These barriers mentioned have a substantial consequence on the growth and expansion of access to e-government programmes and it is the work of the government to ensure they are mitigated.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATION

5.1 Introduction

This chapter presents the summary discussions of significant records of findings, conclusions and finally recommendations drawn from the results. The conclusions and recommendations are concentrated on tackling the purpose of this study which is to examine the factors influencing access to government services through e-government programme in Starehe Sub-County, Nairobi County, Kenya. The study sort to identify and establish how infrastructure, level of education, economic status and cultural factors influence access to government services through e-government programme in Starehe Sub-County.

5.2 Summary of Findings

The following seeks to summaries the findings of the study on the factors influencing access to government services through e-government programme in Starehe Sub-County.

5.2.1 Infrastructure

According to the findings the respondents across all ages seem to think that infrastructure has really improved the means of communication such as government websites are more resourceful with 40% finding them very reliable on information. The findings also revealed that 84% of the population in Starehe Sub-County access the internet while only a 16% had no access to the internet. The people between age 18 – 49 Years seem to access the internet easily. With the era of social media, mobile banking and smartphones people are bound to access the internet frequently. Consequently, penetration of internet has been robust and this has been attributed to favorable data bundles, mobile money uptake in Kenya and mobile penetration which is at 90% according to the latest sector statistics from Communication Authority.

The study also looked at the speed of internet where 91% of the respondents found the speed of internet being reliable. This indicates that the internet speed in Kenya is

favourable for efficient communication and economic growth. Therefore, the infrastructure foundation seems to have been laid down for development and for easy access to e-government services.

5.2.2 Level of Education

The level of education was also one of the objectives of the study. To easily examine the objective, the study looked at the highest level of education, ICT competence and perceived ease of navigation of the respondents. On the highest level of education 52% of the respondents have graduated, 20% were secondary leavers, 19% were post graduates and 9% of the respondents had only finished primary education. The study shows that people who accessed the internet the most were post graduates, graduates and secondary leavers as they had basic knowledge of ICT. Most respondents had basic knowledge of ICT. 52% of the respondents who had basic, intermediary or higher level of ICT education were male while female respondents in the same category garnered 46%.

While 93% of the respondents had basic knowledge of ICT only 50% of the respondents were able to easily navigate through the e-government platforms. This shows that the website and other platforms were not user friendly enough to accommodate the other 50% of the respondents resulting to most people getting assistance while operating e-government platforms.

5.2.3 Economic Status

Economic status is another objective that the study felt influenced access to e-government services. The level of income, use of ICT in service delivery and perceived cost of use was used to explain the factor. 67% of graduates who accessed the internet more often fell on the bracket of above Kshs. 21,000 and below Kshs. 100,000. 77% of secondary level respondents earned below Kshs. 20,000 while 26% were primary level. It was obvious that a majority of the respondents who cut across all ages would use ICT to transact, communicate and interact with the government. This is attributed to the increase in mobile banking and use of smartphones. 59% of the respondents found the cost of

accessing e-government services was affordable as it cut on corruption and broker business. The respondents who felt that the service was affordable fell in income level above Kshs. 50,000 and also felt that service delivery time had improved greatly as the platforms were resourceful. 22% of the respondents found it unaffordable and most of this people earned below Kshs. 50,000 while 19% found it inflated.

5.2.4 Cultural Factors

Cultural issues form the basis of the challenges faced while trying to access e-government services. In the study we analyzed how respondents felt on usefulness of e-government programmes, e-participation and perceived ease of use. 94% of the respondents who are of age 18-49 years found the e-government programmes useful as it was incorporated in their daily circumstances. Most of the people of age 50 and above were adamant in using e-government services as they were accustomed to the traditional way of accessing government services. Most of the respondents agree that there is some kind of two-way communication amid the citizens and government. However, there is too much delay in response and especially from the government side. 25% of the respondents indicate two challenges one of delay and the other being inadequacy of information. Most of the respondents also find that they would access government services through its electronic platforms and only 8% would prefer using traditional ways of accessing government services. Majority of the respondents clearly showed that there is an affiliation between cultural factors and accessing e-government services.

5.3 Conclusions

The first objective of the study was to examine the influence of infrastructure in accessing government services through the e-government programme. It was established that infrastructure was fundamental and essential in accessing government services through the e-government programme. The telecommunication infrastructure need to be in place, the speed of internet need to be reliable while platforms like websites should be resourceful and reliable to enable efficient communication and successful execution of e-government programme. While infrastructure is in place within the Starehe Sub-County

there is need to enhance connectivity to the small percentage that has not been reached yet and also sensitize people on the importance of e-government services.

The second objective was to determine how the level of education influences access to government services through e-government services. The study investigated various aspects of level of education like highest level of education, ICT education and perceived ease in navigation. The study revealed that education in general was not enough but rather proper knowledge in ICT was needed to be able to be efficient in accessing e-government services. It was also well-defined that the government is required to make sure that the platforms are easy to navigate to avoid people shying away or using assistance.

The economic status of an individual was also measured in respect to accessing e-government services. It was clear that individuals need to be economically empowered to be able to see the usefulness of e-government services. The government of Kenya need to ensure that the services provided in e-government platforms are affordable to the common person to enable people to use search facilities for service delivery. Lastly, the study has found that cultural factors are fundamental in accessing e-government services. The way people perceive the platform is very crucial in acceptance of the e-government services. The government need to look into the response rate at which they convey information to users as it is clear people find it with delay. Training on the technicalities of e-government is also paramount in changing how people perceive the programme. Consequently, the platforms need to be user friendly, resourceful and with proper information to motivate people to use the service.

5.4 Recommendations

The following recommendations were made after researching and analysing the outcome:

1. Promote ICT usage – The government needs to do extensive marketing of the government digital platforms to ensure people are sensitized on how to use and benefit from the platforms.
2. Public private partnerships – The government should be encouraging public-private partnerships to ensure they secure enough financial and intellectual support to effectively implement the e-government programme.
3. Research support center - Research and technology support networks would be very effective in understanding the changing needs of stakeholders as well as the changes in technology.
4. Monitoring and evaluation – There is a necessity for constant monitoring and evaluation of the e-government programme in order to compare the objectives of the programme and the actual performance on the ground.

5.5 Suggested Areas for Further Research

Based on the conclusions and finding of the study, the following areas would require further research:

1. To investigate the consistency of plan of implementation of e-government programme
2. To examine how government policies, influence the performance of e-government services.
3. To discuss the monitoring and evaluation strategies of e-government programme.

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APPENDIXES

APPENDIX A: LETTER OF TRANSMITTAL

Joyce Kanyua Kamairo
Masters Student, University of Nairobi
P.O. BOX 564, Kajiado
Contacts: 0713573151/0738421731
Email: jkamairoh@gmail.com

Dear Participant,

RE: REQUEST FOR RESEARCH PARTICIPATION

My name is Joyce Kamairo and I'm a Masters student in Project Planning and Management registration number L50/62643/2013 in the University of Nairobi. I am carrying my research study on factors influencing access to government services through e-government programme. My case study is going to be people working or residing in Starehe Sub-County.

Through this survey, your participation will be beneficial in assessing the accessibility of e-government services within Starehe Sub-County. Your response will only be used for survey purposes. If any questions arise kindly engage the researcher or any of the research assistance.

Yours Faithfully,
Joyce Kamairo.

APPENDIX B: QUESTIONNAIRE

Instructions: Please indicate by ticking your answers accurately; your level of agreeing or disagreement with each of the statements below;

Section A: Demography

1. In which region do you stay
 - A. Nairobi Central Ward
 - B. Ngara North Ward
 - C. Pangani Ward
 - D. Ziwani/Kariokor Ward
 - E. Landimawe Ward
 - F. Nairobi South Ward
2. What is your age?
 - A. 18 – 28 Years
 - B. 29 – 39 Years
 - C. 40 – 50 years
 - D. Above 50
3. What is your gender?
 - A. Male
 - B. Female

Section B: Infrastructure and E-Government Programme

4. How reliable are the e-government platforms for information?
 - A. Reliable
 - B. Very reliable
 - C. Unreliable
5. Are you able to access the internet?
 - A. Yes
 - B. No
 - C. Sometimes

6. How do you find your internet Speed?
- A. Reliable
 - B. Very reliable
 - C. Unreliable

Section C: Education and E-Government Programme

7. What is your education level?
- A. Primary level
 - B. Secondary level
 - C. Graduate
 - D. Post graduate and above
8. What level of ICT are you proficient?
- A. Basic knowledge
 - B. Intermediary Knowledge
 - C. High level Knowledge
 - D. None of the above
9. I'm able to navigate easily through the e-government platforms
- A. Strongly agree
 - B. Agree
 - C. Disagree
 - D. Strongly disagree

Section D: Economic Factors and E-Government Programme

10. What is your income level?
- A. Below Kshs. 20,000
 - B. Kshs. 21,000 – Kshs. 50,000
 - C. Kshs. 51,000 – Kshs. 100,000
 - D. Kshs. 101,000 – Kshs. 200,000
 - E. Above Kshs. 200,000

11. Do you engage the internet in service delivery?
- A. All the time
 - B. 20-30% of your transactions
 - C. 50% of your transactions
 - D. 70-80% of your transactions
 - E. None
12. How do you find the cost of using the e-government services?
- A. Affordable
 - B. Unaffordable
 - C. Inflated

SECTION E: Cultural Factors and E-government Programme

13. I find e-government services provided online very useful
- A. Useful
 - B. Very Useful
 - C. Useless
14. There is interaction in e-government platforms
- A. Prompt and informative interaction
 - B. Delayed interaction but helpful
 - C. Delayed interaction and inadequate
 - D. No interaction
15. I find e-government services easy to find and user friendly
- A. Strongly agree
 - B. Agree
 - C. Disagree

Section F: Access to E-Government Programme

16. How many times do you use e-government services rather than the traditional going face to face?
- A. All the time
 - B. Less than 50% of your transactions
 - C. 50% of your transactions
 - D. More than 50% of your transactions
 - E. None
17. What ways do you use to access government services?
- A. Face to face
 - B. Use an agent
 - C. Online
 - D. None of the above
18. What are the challenges faced in accessing e-government services?
19. Would you like to add any comments?

Thank you for your participation.

APPENDIX C: BUDGET OF THE STUDY

ITEM	QUANTITY	COST/UNIT	TOTAL COST
PERSONEL:		For the whole period	
Research Assistance	2	3,500.00	7,000.00
OTHERS:			
Internet	1	1,000.00	1,000.00
Transport	3	500.00	1,500.00
Printing	1	5,000.00	5,000.00
Printing papers	400	30.00	12,000.00
General Stationery			4,000.00
Permit			1,500.00
Total Amount			32,000.00

APPENDIX D: TIMEFRAME

ACTIVITY	TIMEFRAME IN WEEKS							
	1	2	3	4	5	6	7	8
Proposal writing								
Data collection								
Data Analysis								
Submission								