# DETERMINANTS OF IMPLEMENTING E-GOVERNMENT IN KENYA: CASE OF NAKURU TOWN HUDUMA CENTRE

**NGUGI PATRICK WAWERU**
**C153/OL/CTY/32257/2016**

**A PROJECT SUBMITTED TO THE DEPARTMENT OF PUBLIC POLICY AND ADMINISTRATION IN PARTIAL REQUIREMENT FOR QUALIFICATION AND CONFERRING OF A DEGREE IN MASTERS OF PUBLIC POLICY AND ADMINISTRATION (MPPA) OF KENYATTA UNIVERSITY**

**JUNE, 2022**

.

## DECLARATION

I Patrick Waweru Ngugi, do state that, this is an original research work because it is been presented to Kenyatta University for the first time and it has previously been submitted to any institution of graduate or post-graduate learning in conferring any degree qualification.

**Signature_____ Date_____**

**Ngugi Patrick Waweru**

**C153/OL/CTY/32257/2016**

I have approved the submission of this project as the supervisor of Kenyatta University.

**Sign _____ Date_____**

**Dr. Wilson Muna**

**Public Policy and Administration Department**

**Kenyatta University**

## ABSTRACT

Provision of services to the members of the public has always been viewed to lack efficiency and transparency thereby being labeled as riddled with corruption in general worldwide. Governments have constantly made attempts at quality standards, particularly for customer (citizen) satisfaction. In Kenya, the public service sector has been making effort to offer efficient and effective services, by deploying programs like the Structural Adjustment Programme (SAP) of the 1980s, which led to staff rationalization and encouraged civil servants to voluntarily retire. In the 1990s the government adopted strategic management by hiring managers from the private sector who christened the "dream team" whose recommendation included retrenching civil servants to reduce the wage bill. Later in the year the 2000s and beyond the government embraced Information Technology in its back-office processes, geared towards improving efficiency in government processes. To improve customer experience, the Kenyan government launched the Huduma Kenya in 2013, whose front office services are offered through the Huduma Centre(s), a one-stop shop for amalgamated services. E-government is an effective strategy for promoting integrated approaches to policies and services offered by encouraging accountable and transparent institutions. However, the implementation of Huduma centres across Kenya has not been without hurdles, especially in the advent of the county government system. This study endeavours to look at factors determining the pace and direction of e-governance implementation in Kenya through the Huduma Kenya programme. This study focused on Nakuru Town, Huduma Centre. The study was carried out amongst management, members of staff (front desk officers), and members of the public seeking services at Huduma centre in Nakuru town. This guided by among other objectives: to establish how organizational functions, client processing, ICT infrastructure, and organizational culture determine the implementation of e-government. The study used mixed research method designs where both qualitative and quantitative approaches were deployed. Qualitative data was collected by the use of a descriptive survey design and a simple random sampling technique was used to select respondents. Quantitative data will be collected by the means of questionnaires and qualitative data by use of scheduled interviews. Descriptive statistics techniques such as Pearson correlations and regression analysis will be used for (frequencies, means, and percentages) and thematic analysis for data collected from interviews giving descriptive statistics. Tables and charts presentations were used to demonstrate the outcome. The information obtained from this study may be used by stakeholders such as the government agencies and key staff in strategic positions concerned with the implementation of e-governance as a guide to policy review and/or development.

## LIST OF ACRONYMS

| | |
|---|---|
| BPO: | Business Process Outsourcing |
| CBD: | Central Business District |
| E-Government: | Electronic Government |
| GoK: | Government of Kenya |
| GPO: | General Post Office |
| ICT: | Information and Communication Technology |
| ICTA: | Information and Communication Technology Authority |
| IFMIS: | Integrated Financial Management Information system |
| IPPD | Integrated Personnel and Payroll Database |
| ISD: | Integrated Service Delivery |
| IT: | Information Technology |
| ITES: | Information Technology Enabled Services |
| NGO: | Non-Governmental Organisation |
| SDG: | Sustainable Development Goal |

## LIST OF FIGURES

Figure 2.1: Relationship among Themes, by Thematic Content ..... 18

Figure 2.1: Conceptual Framework ..... 26

## LIST OF TABLES

Table 3.1: Target Population ..... 30

Table 3.2: Sample Distribution Matrix ..... 32

Table 3.3: Cronbach Alpha Results ..... 34

Table 4.1: Participation Rate ..... 38

Table 4.2 Distribution of the customers by gender ..... 39

Table 4.3 Distribution of staff by Gender ..... 39

Table 4.4 Distribution of customers by Age Category ..... 40

Table 4.5 Distribution of staff by Age Category ..... 40

Table 4.6 Number of years in current work position ..... 41

Table 4.7 Distribution of Respondents by Highest Education Level ..... 42

Table 4.8 Respondents Distribution as per frequency of visiting the Huduma centre ..... 42

Table 4.9 What services do you seek from Huduma Centre ..... 43

Table 4.10 Descriptive statistics for implementation of e-government services ..... 44

Table 4.11 Descriptive statistics for organizational functions ..... 47

Table 4.12 Descriptive statistics for ICT infrastructure ..... 49

Table 4.13 Descriptive analysis for access to ICT and implementation ..... 51

Table 4.14 Descriptive statistics for organizational culture ..... 53

## OPERATIONALIZATION OF TERMS

Below are the operationalization terms and concepts as applied specifically for the sake of expounding concepts of this research project.

### E-Government

The term e-government (electronic government) is used in this study to refer to the use of electronic gadgets (computers, mobile phone, touchpads) and their networking by use of either the internet or both wide area network (WAN) or local area network (LAN) by the government in the process of public administration.

### E-governance

Specifically, this research refers to e-governance as the availability of government processes and procedures including laws and regulations in the electronic medium.

### Efficiency

This study adopted the term efficiency to mean, the public administration processes that yield the desired outcome using the shortest time possible without compromising on quality and quantity and within an affordable cost.

### Effectiveness

The term effectiveness as applied in this study takes the meaning of achieving the desired goal(s) to the best customers' satisfaction.

### Accountability

Accountability in this study is taken to mean the straightforwardness of government operations by the operationalization of standard operating procedures and the specific agency or department taking responsibility for any discrepancies on the expected standard of services.

### Information Technology (IT)

Information technology is used to mean the use of various advanced media to pass the information, this includes emails, short message service (SMS), social media, as well as video calls and voice over internet protocol (VoIP)

### Information and Communication Technology (ICT)

As per this study, the term ICT or information and communication technology is applied for the meaning of utilizing communication gadgets for communication mobile phones, touchpads, computers, and their networking for the sake of communication

## TABLE OF CONTENTS

**DEDICATION**..... ii

**ABSTRACT**..... **iii**

**LIST OF ACRONYMS** ..... **iv**

**LIST OF FIGURES** ..... **v**

**OPERATIONALIZATION OF TERMS**..... **vii**

**TABLE OF CONTENTS** ..... **viii**

**CHAPTER ONE** ..... **1**

**INTRODUCTION**..... **1**

1.1 Research Background ..... 1

1.2 Problem Statement..... 2

1.3 Objectives ..... 4

1.4 Research Questions..... 5

1.5 Study's Significance ..... 5

1.6 Study Justification..... 6

1.7 Study Limitations..... 6

**CHAPTER TWO** ..... **8**

**LITERATURE REVIEW** ..... **8**

2.1 Relevant Literature Review ..... 8

2.1.1 E-Government Services ..... 8

2.1.2 Implementation of E-Governance..... 12

2.1.3 E-Government services implementation in Kenya ..... 14

2.1.4 Organizational determinants of implementing e-Government ..... 16

2.1.5 Access to Information Technology..... 19

2.1.6 ICT Infrastructure determinants of Implementing of E-Government Services 20
2.1.7 Organizational Culture in e-Government Implementation ..... 21
2.1.8 Client processing..... 23
2.2 Conceptual Framework and Theoretical ..... 24
2.2.1 New Public Management (NPM) concept and Digital Era Governance (DEG) ..... 24
2.3 Conceptual Framework..... 26
**CHAPTER THREE ..... 28**
**RESEARCH METHODOLOGY ..... 28**
3.1 Introduction..... 28
3.2 Research Design..... 28
3.3 Variables ..... 28
3.4 Study Site ..... 29
3.5 Target Population..... 29
3.6 Sampling Techniques and Sample Size ..... 30
3.6.1 Sampling Techniques..... 30
3.6.2 Size of the Sample ..... 31
3.7 Instruments of the Research..... 32
3.7.1 Questionnaires..... 32
3.7.2 Scheduled Interview..... 33
3.8 Study Piloting..... 33
3.8.3 Pilot testing ..... 33
3.9 Validity and Reliability..... 34
3.9.1 Validity of Research Instruments..... 34

3.9.2 Reliability of Research Instruments ..... 34
3.10 Procedures Data Collection ..... 35
3.11 Data Analysis Procedures ..... 35
3.12 Management of Data and Ethical Considerations ..... 36
3.12.1 Management of Data ..... 36
3.12.2 Ethical Consideration ..... 37
**CHAPTER FOUR ..... 38**
**FINDINGS, DISCUSSIONS, AND INTERPRETATIONS ..... 38**
4.1 Introduction ..... 38
4.2 Response rate ..... 38
4.3 Respondents Gender ..... 39
4.4 Age of Respondents ..... 40
4.5. Years of Service ..... 41
4.6 Respondents highest education level ..... 42
4.7. Frequency of Visit to Huduma Centre ..... 42
4.8 Services Sought ..... 43
4.9 Descriptive analysis ..... 44
4.9.1 Implementing E-Government ..... 44
4.9.2 Organizational functions ..... 46
4.9.3 ICT Infrastructure and E-Governance ..... 48
4.9.4 Organizational culture ..... 52
**CHAPTER FIVE ..... 55**
**SUMMARY, CONCLUSION, AND RECOMMENDATIONS ..... 55**
5.1 Introduction ..... 55

5.2 Summary ..... 55
5.3 Conclusion ..... 56
5.4 Study's Recommendations ..... 57
5.4.1 Organization culture ..... 57
5.4.2 Access to ICT and implementation ..... 58
5.4.3 ICT Infrastructure and e-governance ..... 58
5.4.4 Organizational functions ..... 58
5.5 Suggestions for Continued Studies ..... 59
**REFERENCES ..... 60**
**APPENDICES ..... 64**
Appendix I: The Letter to the I/C Huduma Centre ..... 64
Appendix II: Introduction letter ..... 65
Appendix III: Research Questionnaire for Huduma Centre Staff ..... 66
Appendix IV: Customers Research Questionnaire ..... 71
Appendix V: Interview Schedule ..... 73
Appendix VI: Work Plan ..... 74
Appendix VII: Cost for the Research ..... 75
Appendix VIII: Map of Nakuru Town ..... 76

# CHAPTER ONE

# INTRODUCTION

## 1.1 Research Background

Public services provision to the members of the citizenry has always been characterized by inefficiency and corruption the world over, in Kenya, the public sector has been facing the challenge of offering efficient services for a long time, as noted by Rutto *et al* (2017) in Huduma centres: Revolutionizing service provision in Kenya. Specific efforts to improve services offered have been inclusion of structural adjustment programmes, employee rationalization, result-based management or performance contracting, and embracing of Information Technology (IT) to streamline both the back office and front desk services.

The government of Kenya started the journey to e-governance by developing backend services, as exemplified by Integrated Financial Management Information System (IFMIS) which streamlined cash transfer within the departments and ministries as well as facilitating expedited payment to suppliers and contractors, then the Integrated Personnel and Payroll Database (IPPD) aimed at managing its human capital efficiently, Wamoto (2015).

To address the front desk inefficiencies and improve on customer satisfaction and in an endeavour to meet chapter 6 clause 3 of the Kenya constitution of 2010 that declares “a national state organ shall ensure reasonable access to its services....having regard to the nature of the services, the Kenyan government in 2013 launched the Huduma Kenya initiative: which is an Integrated Service Delivery (ISD) model where several services are offered under one roof in a one-stop-shop. The Huduma Kenya services are offered through various channels that include; Huduma web portal, Huduma mobile platform (based on cellular telephony), Huduma call Centre, Huduma Payment Gateway, and the Huduma Centre in various major towns in Kenya to establish a Huduma centre in all the 47 counties and eventually to all sub-counties in Kenya.

The present decade has been characterized by huge technological advances and innovations in e-government, which is created by the progression of innovation in the sphere of Information and Communication Technology (ICT), that is, use of electronic devices like telephony and computers as well use of the internet, thereby generally changing lives. This is the future. E-government (or Electronic government) is the preferred tool for many countries, in their quest of ensuring quality service delivery to their citizens.

Implementation of e-government services worldwide has produced the following results: Success (all goals are met), partial failure (some goals are realized), or total failure (minimal goals are attained leading to the abandonment of the project) Heeks (2002). Therefore, despite the e-government benefits of improving effectiveness and efficiency, the implementation of these initiatives in Africa especially the Sub-Saharan may fall in either of the categories. Nkohkwo et al (2013), conducting a study about e-governance in African countries below the Saharan region noted that because of insufficient information on e-government implementation in sub-Saharan Africa it became hard to quantify the rate of success or failure, and that, might be construed to mean low or no adaptation of technology in governance.

### 1.2 Problem Statement

The past decade has witnessed an unprecedented paradigm shift in governmental operations the world over as governments seek to deliver their services nearer to the people who need them and an upsurge in strategies meant to create efficiencies in governmental operations. The adoption of the Huduma Centre initiative by the government as an e-governance form in Kenya can be understood in the context of enhancing public services delivery country-wide. Huduma Kenya concept initiative envisaged many benefits to the government and the general population who are the beneficiary of these services. This is succinctly outlined and discussed the overall goal and objectives in the operational document to Huduma Centre. However, upon the implementation of the Huduma Kenya initiative through Huduma centres all over Kenya,

the benefits of the initiative are only felt in moderation, defying the hype with which the initiative was received.

Various studies exist documenting the design and deployment of spearheading e-government servicing in many regions globally. These studies established that organizational, political, socio-economic, human, and infrastructural factors affect the implementation of e-governance. Nkohkwo and Islam (2013), focusing on e-governance in Sub-Saharan Africa, established that these factors vary from region and country. Notably, the paucity of information relating to ways through which the different factors affect the implementation of e-governance hinders full appreciation of this innovation. This was aptly demonstrated by Nkohkwo and Islam in their extensive online literature review on e-governance per country in Sub-Saharan Africa. Ochora (2010)'s study of the absorption of e-governance in the East of Africa is an important sub-regional contribution. The study focuses on government websites and their contents and the importance and challenges that faced e-governance adoption in East Africa.

Maumbe, Owel, and Alexander's (2008)'s study examining the extent of e-governance adoption in Africa is another important contribution to this debate. Focusing on the Cape Gateway case in South Africa, the main e-governance project in Africa, this study finds that some countries have more advanced e-governance aims than others. The study established that many African nations quickly adopted e-government initiatives due to calculated benefits without factoring in the risks and challenges that may affect the initiatives during the implementation process. The research did established that due to a myriad of reasons, most initiatives on e-governance that are likely to be effective in countries that are developed are not in countries that are still developing. The challenges include social-economic factors such as limitations in infrastructure, deficiency of existing regulatory frameworks, varied citizen's attitudes due to their diverse cultural backgrounds, inadequate budgetary allocations, and inadequate skills and competencies required.

A study by Njenga (2014) examined factors that influenced the e-government policies implementation. However, Njenga's study did not cover the Huduma program, since it

had just been launched. Additionally, Otieno and Omwenga (2016) examine factors that impede successful e-government implementation in Kenya. From a citizen-centric narrative at the Nairobi County Huduma Centre, this study appreciates various factors that militate-government initiative implementation as like Ochora 2010. These studies demonstrate the preponderance of e-public services in developing and developed regions of the world. The research also outlines the accrued advantages of implementing e-government as well as the hurdles faced in the Kenya initiative, and around the world. Major challenges outlined in the studies include lack of infrastructural services, lack of established policy framework, security and social frameworks. However, the studies establish that less keenness has been concentrated on the determinants of implementing e-government. This gap of information has led to sustainability issues and the failure of the e-government system to meet the goals and expectations. It was against this understanding that this research sook to elaborate on: what determined the implementation of e-government at Huduma Centre, Nakuru Town.

According the Nakuru County's official website, the Kenya Census of 2009 established that at the time, Nakuru County population was 1, 603,325. With a projected population growth rate at 3.05% today the county has an approximated population of 2, 046, 395, comprising of 1, 026, 924 males and 1, 019, 471 females. This high population growth rate has created a predominantly youthful population. 51.87% of this population is aged less than 20 years and 71.63% of the population is less than 30 years of age. It is against this backdrop that the researcher felt there is need to study the determinants of implementing e-government in this area, given that due its location the Huduma centre is in a position to serve people from the neighbouring Counties of Laikipia and Nyandarua. Given this huge population, and prevailing economic hardship which in turn dictate access to knowledge especially in ICT, the researcher felt the need to delve into determinants of implementing e-government region.

### 1.3 Objectives

The major reason for the research was to look at determinants of implementing e-governance in Kenya through the Huduma Kenya programme.

Specifically, the study aims:

i. To find out how organizational functions and culture determine the e-government implementation at Huduma Centre, Nakuru Town.
ii. To evaluate how ICT infrastructure determines the e-government implementation at Huduma Centre, Nakuru Town.
iii. To examine how client processing determines the implementation of e-government at Nakuru town Huduma Centre.
iv. To examine strategic interventions adopted in implementing e-government services at Nakuru town, Huduma Centre.

### 1.4 Research Questions

The research strives to respond to the ensuing study inquiry.

i. How do organizational functions and culture inspire the implementation of e-government servicing at Huduma Centre, Nakuru Town?
ii. How does access to ICT infrastructure determine the implementation of e-government services at Huduma Centre, Nakuru Town?
iii. How does client processing influence the rollout of e-government servicing at Nakuru town, Huduma Centre?
iv. How do interventions adopt to determine the implementation of e-government services at Nakuru town, Huduma Centre?

### 1.5 Study's Significance

This study is significant because, the information obtained may be used by other parties interested such as governmental agencies, the government, and key staff engaged in implementing e-governance as a guide to policy review and/or development planning. Policy development will be from a point of knowledge. An understanding of how organizational functions, access to ICT infrastructure, organizational culture, and client processing determine the implementation of e-governance will also be useful to interest non-governmental actors such as NGOs, civil societies, and other agents of positive change such as trade unionists and church organizations. In the future scholars and researchers may also use the findings resources to further their studies.

## 1.6 Study Justification

Nakuru town is the seat of the devolved government of the Nakuru County, and the latest to gain City status in Kenya, after Nairobi, Mombasa, and Kisumu. Nakuru County constitutes eleven constituencies: Bahati, Gilgil, Kuresoi South, Kuresoi North, Molo, Njoro, Nakuru Town East, Rongai, Nakuru Town West, and Subukia. Due to its central location, Huduma Centre in Nakuru town serves all the above-listed constituencies.

This research was being carried out at the Huduma Centre Nakuru town amongst its management, general staff, and members of the public (client) seeking services at the centre. The centre is located at the Nakuru General Post Office (GPO), in the central business district (CBD) on Kenyatta Avenue next to Merica Hotel. The confine of the study is looking at how organizational functions and ICT infrastructure at the Nakuru town Huduma centre, Accessibility of ICT, and ICT use proficiency amongst members of public determine the e-governance implementation in Nakuru town.

Nakuru town was selected because it's the only Huduma centre with the largest geographical coverage compared to others. The centre also serves people with diverse economic and social backgrounds whose contribution is pivotal in determining the enhancement of this initiative.

The study is projected to cover six (6) months.

## 1.7 Study Limitations

The research was conducted at the Huduma centre, Nakuru town and thus the views captured may not necessarily reflect the views of all Huduma centres countrywide. Due to differences in operational environment among the forty-seven (47) counties of Kenya, specifically in the dispensation of devolution system of government, the general use of this study's findings may not be replicated to other counties of the Republic of Kenya.

The research depends on questionnaires key data collection instrument, which is likely to come across the challenges associated with reliance on questionnaires, for example, the

researcher may not ascertain whether the information given by a respondent is truthful or not. To address this risk, a triangulation approach was used.

# CHAPTER TWO

# LITERATURE REVIEW

The second chapter in this research delves into scholarly writings on determinants of implementing the e-government are underscored. The review of literature for this study borrowed from journals, books, documents, as well as reports and publications by the government that may have information either partially or wholly on the implementation of e-governance. Also covered include conceptual and theoretical frameworks.

## 2.1 Relevant Literature Review

### 2.1.1 E-Government Services

Various perspectives exist on E-Government such as deployment of information and communication technologies strategies to offer citizenry and businesses entities an opportunity to conduct business and interact with the government over various electronic media like the mobile telephone, touchpad, self-service kiosks, fax, smart cards, e-mail / Internet, Almarabeh (2010). While Njenga (2014), considers e-governance to use of Information Communication Technologies (ICTs) to provide common goods (Taylor 1993) and services, as a factor of public choice, Mueller (2003), Ojo (2014) posits that e-governance as the application of Information Communication Technology (ICT) by the government to create awareness, ensures openness, and bolster accountability in the management of the governmental business. For purposes of this study, E-government refers to internet use as well as digital technologies to facilitate public services delivery conveniently to a larger public in a customer-focused and affordable manner. Politically, E-governance is also a government political tool through which their manifestos and policies are showcased to the public for political benefit.

In 2016, the United Nations surveyed on e-government acceptability by members of the public. The report on Global E-government (2016) survey defined the concept as “utilizing the internet or the world wide web (www) in dissemination of government

information as well as services to citizens". E-government is government functions and services rendered with the support of technology such as the internet. All governments exist for the sole purpose of offering public services (public goods) Taylor (1998, 404), Eicher *et al* (2009), and Mueller (2003, 9, 506,). Almarabeh *et al* expounded on the adoption of e-government as a platform for administration and execution of rules and regulations by a government for service delivery, and a channel to integrate, co-ordinate and communicate government processes and activities, (Almarabeh 2010). The spread of e-governance initiatives across the globe is incubated by an increase in broadband internet access and the penetration of telephony, Abdullah et al (2013).

The United Nations (2016) report on an e-government survey views it as an effective strategy for facilitating integrated and coherent policies in public service by promoting transparent and accountable institutions, such as through participatory decision-making. This will promote the realization of the 2030 Agenda for Sustainable Development.

The report shows a deepening in new digital technologies linked to service delivery as well as public participation in decision-making processes. The survey outcome shows Europe leading in e-government penetration and adoption, followed by the Americas, Asia, Oceania, and Africa respectively. In Europe, the United Kingdom takes the lion's share in the deepening of e-government while Oceania is led by Australia. The Republic of Korea topped the list of countries with deepened technology adoption in government service provision in Asia while Mauritius was the top performer in Africa, ranking 58th worldwide.

E-government emphasizes delivering services to citizens by use of information technology which consequently affects relations of government, its specialized arms, and citizens such that it is made more interactive and people-friendly, (World Bank, 2012). It is an approach that is geared towards promoting citizens' satisfaction through quality service delivery. For e-government to succeed, the digital infrastructure solutions must be reasonably accessible and available to all citizens (Nkohkwo, 2013).

Many countries recognize the importance of citizen feedback management of governmental affairs. This is fairly easy by the adoption of digital technologies such as the use of the internet in governance or Integrated Service Delivery (ISD) which is now adopted as a minimum standard in Public Service delivery Innovation for efficiency faster mode public service. This has been adopted and promoted by developed and developing countries equally, Rutto & Yuda, (2017). The United Kingdom, Australia (particularly the state of Victoria), and Singapore embraced e-governance earlier than others.

In Africa, the last two decades have seen a growing demand for efficiency in public service delivery. These have seen an increase in demand for e-governance being adopted in countries of South Africa, Nigeria, and Kenya, (Omeire & Omeire, 2014). Importantly, e-government represents effective means to public service governance and promotion of citizen participation in governmental affairs, both at national and local levels. E-government is critical in African countries, especially sub-Saharan regions, inefficiencies and ineptitude, resource scarcity, and under-trained or untrained staff are the hallmarks of public service delivery (Otieno, 2015).

Similar studies abound outside Africa, Bertot, Jaeger, and Grimes's (2010)' study shows how to incorporate ICT in e-governance. This study outlines its potential impacts as an attitude change agent and improved confidence of the citizens towards the government. Bertot et.al observe that e-government implementation in developed nations is easier than among middle- or lower-income level countries due to the existence of better financial resources and technical and personnel resources and better regulatory framework. The same study outlined various challenges that hinder the e-government implementation including an unwillingness by the citizens to adopt the ICT framework whereby they preferred interacting with individuals than accessing the same services online.

Due to its pivotal role and widespread benefits, the migration electronic –the government has been adopted by a majority of governments as a cost-effective alternative for boosting government productivity and efficiency. It has also provided a paradigm shift from government-centric to citizen-centric services (Rabaiah, 2011). Such benefits

include service quality, efficiency, speed, and accuracy in service delivery to a country's citizens.

Recognizing the importance of technology as an enabler in global development, the United Nations, in the famous Agenda 2030 for development goal 17 subsection 17.8 envisages a fully operationalized technology bank, where science, technology, and innovation incubation is undertaken to support the growth of less developed countries' technology capacity by 2017. Further, the UN called for use of enabling technology, in particular, digital technology (UN, (2014) in sustainable development efforts.

In the same spirit of creating synergies for development, the Africa Union in 2015 adopted her version of SDGs called AU Agenda 2063. In this continent-wide development blueprint, ICT is recognized as an important enabler of continental development especially coming from a region lagging in technology adoption and innovation. Agenda 2063 aspires to realize "a continent at par with others as information and integrated e-economy where governments, business and citizen access and utilize reliable and affordable ICT services, (AU 2015). The AU agenda enumerates relevant programs that describe e-governance. Whether these programs were achieved by the stated period is subject to argument. In Kenya, the e-government initiative goes a long way in implementing this continental agenda.

The Kenya Vision 2030, (GoK, 2007), though providing the foundation of development planning in the era of pluralist political governance fails to appreciate the preponderance of ICT in national governance. The plan only refers to ICT once while not clearly outlining the activities for adoption to promote government engagement with her people. It is until the development of the Big 4 Agenda for development that e-governance adoption gains momentum.

Big 4 Agenda, (GoK 2017) recognizes the pivotal role of ICT as the promoter of e-governance. Since then various legal and administrative actions have been accomplished promoting e-governance. Such initiatives as the Huduma centres, Huduma Number, e-citizen, creation of a ministry of ICT, various legislations protecting users of e-services,

and the large entry of private players in technology business have all contributed to the deepening of e-governance. This can be summed up as having a virtual Kenyan government, where the whole government is online.

### 2.1.2 Implementation of E-Governance

Ayoo, (2014) avers that E-governance is the use of ICT in governing a country/state". This means e-governance involves the deployment of ICT and technology-related innovations in conducting government businesses. This definition shows e-governance as simply the remote administration of government services by use of modern technology. The adoption of ICT in governance presents a paradigm shift from the traditional, hierarchical, and top-down way of conducting government activities to internet use allowing the general public to access government services conveniently, in their comfort, remotely, and at any time. Therefore, the quest of a government to deliver quality service to its citizens is enabled by ICT.

The development of e-Government points to myriad inherent merits such as low-cost infrastructure, the performance of government, lack of alternatives in broad scaling of online services, increased integrity in all processes. Continuous citizen engagement through e-Government platforms during procurement of services is a major challenge since the population accessing these services on a single day is huge. Embedded within e-governance is e-Satisfaction which is pivotal to accumulating and retaining a firm pool of long-term e-customers, Fitsilis et al (2010). Different variables and methods developed by, The United Nations, World Bank, Canadian Common Measurement Tool (CMT) Europe's Information Society DG, European Customer Satisfaction Index, American Customer Satisfaction Index, have been adopted for measuring satisfaction and advancement of e-government Fitsilis et al (2010).

E-government is undergirded by four key delivery domains. First is the Government to Citizen/Customer (G2C) domain in which the government seeks to enhance its efforts in providing services to its customers (citizens), address citizens' concerns including complaints example of this domain is the e-citizen platform. The secondary domain is the Government-to- Business (G2B) domain whereby the government engages with the

business fraternity in a government business framework, example of this domain is the IFMIS, e-procurement, among others; also, there are the Government-to-Government (G2G) domain in which the government offers services to its agencies, for instance, document verification services within government is a government to government arrangement, an example of this domain is IFMIS, e-citizen among others. The last domain is the Government-to- Employee (G2E) (Adeyemo, 2011), in this domain, the government uses technology to manage its employees. Among government employees, programs are the famous GHRIS. These delivery domains are the models of e-governance, which provide a platform for interactions between and among the citizens, government, business and service community, its employees, and civil society respectively, in a given territory, Rabaiah and Vandijct (2011).

The adoption of e-governance as a channel to discharge public services is a global trend taking place in countries either developed or developing. Adoption of e-governance initiatives is in pursuit of different government agendas including improving public service delivery, better governance, and entrenching public participation and engagement as well as better management of public resources. Rutto and Yuda, (2017) see these initiatives as having achieved varied successes, despite the popular view that a minimal percentage of e-government systems in developing countries succeed. Yet still, other commentators see mixed results of either total or partial failures, Rutto & Yuda (2017). Therefore, the *raison d`etre* for global governments adopting e-governance is the increased interactions between the government and its clients.

In their interrogation of the value of e-governance to the public in Sri Lanka, Karunasema and Deng, (2012) state that "delivery of timely information and availability of government services", use of information and e-services provided herein, the efficiency and responsiveness of public institutions responsible for providing these services and information, including their contributions (public organization) to environmental sustainability are critical factors to be considered in the evaluation of e-government value to the public. E-government empowers citizens to overcome not only reduce the digital divide but also help reduce intermediaries and costs during the procurement of the services, Nkwe (2012).

The e-government implementation in African countries below the Saharan region is determined by organizational, political, socio-economic, human resource, and infrastructural factors, Nkohkwo and Islam, (2013). Infrastructural factors include digital infrastructure, system security, interoperability, data availability, power supply issues, internet access, and connectivity. Organizational Factors include determinants such as top management goodwill and leadership on the e-governance initiatives, paucity or sometimes weaknesses in laws and guidelines, scarcity of relevant skills in ICT personnel, poor change management, and lethargic human capital development.

Socio-economic factors include determinants such as citizens' illiteracy or ignorance, poverty levels, cultural beliefs about technology, population size, and corruption. Finally, human factors comprise determinants like awareness, attitude towards digital technology, learning/teaching resources, accessibility, public support, knowledge, and personnel, Nkohkwo and Islam (2013). While the above challenges impede the provision of government services to citizens electronically by the government, these citizens' incapacities impede them in accessing e-government services as a priority. These include inadequate ICT infrastructure, low levels of citizen participation, and participation, inadequate government funding of e-government projects, and inadequate awareness of the importance of e-government, Njenga (2014).

### 2.1.3 E-Government services implementation in Kenya

Traditionally, government offices were characterized by long queues, bureaucracy, cramped spaces littered with mounts of papers, full disorganized in-trays, and a lot of frustrations by the public. Such state of affairs culminated in inefficiency, corruption, and a high level of public frustration. The main bottlenecks in government service delivery can be identified as injudicious discretionary powers and lack of transparency in the processes which breed the practice of "speed payments" where government officers demand or receive, or expatriates and their representatives would offer payments willingly for expedited services. The old order of public service reeked of "lost files" and

“looking for files”, while others are perpetually told to “come tomorrow”. Technology especially in ICT is expected to provide solutions to this state of affairs.

In 2008, Kenya adopted the Vision 2030 roadmap for development. The roadmap has robust provisions on public service management and places technology at the core of this renewed development aspiration. Since then, Kenya continues to enjoy consistent growth in the telecommunication sector. National development plans have sought to take advantage of its explosion by promoting technology-based business approaches such as business process outsourcing (BPO) and IT-enabled services (ITES) to public and private sectors. To implement some of the provisions of the Vision 2030, Government established the Information and Communications Technology Authority (ICTA) under Legal Notice No.183 of 2013 with the mandate of coordinating the expanding ICT sector and marketing the country as an ICT hub or “a silicon Savanah” of Africa. Similarly, the authority was to harmonize the management of all government ICT institutions and perform other functions such as ICT sector policy development, overseeing ICT-related projects of the government, and setting e-government standards for adoption in public and private sectors. The Authority amalgamated three agencies namely, the Kenya Information, the Government Information Technology Services (GITS), Department of e-Government and Communication and Technology (KICT) Board, (GoK, 2013).

The government created an online portal which was later upgraded to a full-fledged one-stop-shop aimed at general public information and awareness initiative. In 2011, the Kenya Open Data project was launched to promote transparency in Government and facilitate the accessibility of business opportunities and employment to the public. Running on these heels, the Connected Kenya Master Plan (2012-2017), was set up with the vision of an economy that is anchored on knowledge and is competitive worldwide. This was expected to enhance and drive the ICT business and industry forward, (GOK, 2013).

In 2013, the Huduma Kenya program was launched to improve access to government services to all Kenyans, with the first center being General Post Office (GPO), Nairobi. The Huduma Kenya is understood in the context of an Integrated Service Delivery (ISD)

where several services are offered under one roof by juxtaposing several government departments and agencies, thereby reducing the time and expenses of visiting several offices in pursuit of services- in comparison to days when services were only available in government offices thereby demanding client to travel to either major cities or even in the worst scenario to Nairobi. As an under-roof shop, Huduma Centres, provide a mix of services such as physical government services under one roof, an online portal to avail services on a 24-hour basis integrating all other government services online, mobile phone services to citizens, and Huduma customer contact centre using a single dialing number that the public can use for inquiries. The center also operates a unified multi-channel payment gateway. The project also conceived a Huduma Card to facilitate easy receipt of Government payments for various services. The success of the Nairobi centre was later replicated in other large towns in Kenya.

Providing e-government services is to convert the government functions to a 24-hour economy. Ondego et al, 2016 see this as an extension of the 5Ws and 1H idea or the Who, what, where, when, why, and how of problem-solving. In the 24/7 economy, citizens can access government services round the clock and all week long irrespective of geographical location. Traditional government processes are characterized by manual transactions, physical filing of documents with back and forth correspondences, xeroxing, misuse of resources (paper); difficulty accessing, retrieval, and data management, prevention of loss of data leading to general lethargies in operations. Therefore, the Huduma Kenya initiative was aimed at changing the situation to a more efficient and responsive way of public services delivery.

Considering, the potential benefits to be achieved from the Huduma Kenya program, it is important to assess its implementation and the nature of the effect identified as either positive or negative effects.

### 2.1.4 Organizational determinants of implementing e-Government

Implementation of e-government encompasses both a technical and an organizational issue, Alshehri et al (2010). A good e-government strategy must also include mitigation

measures for these challenges. These organizational exceptions include lack of goodwill in support of e-governance, slow adoption of technology, deficiency of collaboration, and inadequate capacity of human resources. Effective and successful e-government implementation requires top government leadership support. This is in form of goodwill and the promise to accept, consume and adopt e-government systems.

Establishing the significance of organizational challenges facing the adoption of digital governance by various countries. A 2012 United Nations (UN) report, ranked Oman 64$^{th}$ globally in e-government preparedness, which was the lowest in comparison within the region. The study involved 25 executives' participants from five (5) organizations in the Oman government. The poor ranking was linked to leadership challenges. Further, the study identified four e-government essential leadership skills which are pivotal for successful e-government initiatives. Some of these skills are: (a) determined, (b) knowledgeable, (c) communicator, and (d) social, Al-Bulushi, (2017). Leadership offers a critical position in implementing e-government initiatives by coordinating and facilitating various players and activities. Leadership also ensures that an organization is performing in an efficient manner, where all departments are functioning coherently as a unit. The leadership provides a conducive environment where the population understands the vision envisaged. Another importance of leadership is to mobilize the people to value their work, by encouraging them to shift their interest from self-centeredness to the common good of all, and generating commitment and enthusiasm in the task allocated, Yukl (2010).

Various leadership qualities help to drive e-government programs to success. Such qualities exhibited through transformational and transactional leadership are important just as follower response to corporate social responsibility. Opportunities created by embracing E-government include a new level of transparency, driving changes, and addressing technological challenges to a hierarchical, bureaucratic, and task-oriented government leadership. This magnitude of goals requires leaders capable of spearheading change and committed to improving performance in an organization. Outstanding leadership creates value for customers and improves the quality of services rendered and products generated. Leadership must understand and apply pioneer models that generate

the desired changes as well as guide the masses to accept changes coming with e-government implementation. Groves et al (2011).

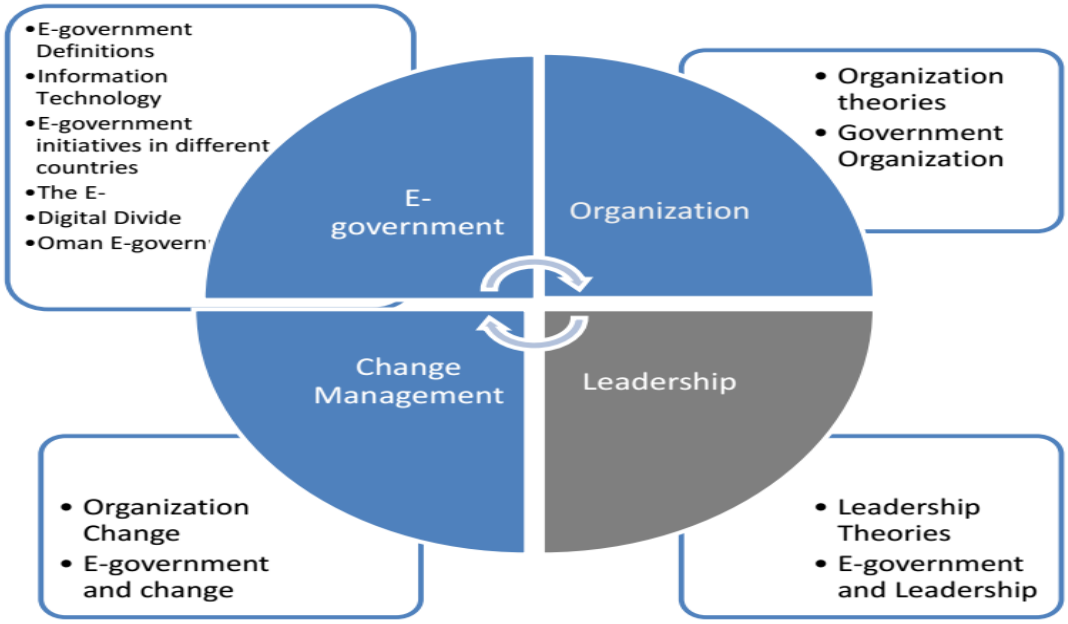



**Figure 2.1: Relationship among Themes, by Thematic Content**

***Source: Al-Bulushi (2017)***

The e-government success depends on several factors. These are tangible and non-tangible organizational factors such as the readiness of the organization in terms of planning; infrastructure preparedness; management preparedness through establishing appropriate structures and systems; organizational leadership and quality of human resources to steer the e-government agenda, Ahmad et al (2012). These organizational factors are critical determinants in implementing e-government in the republic of Jordan, Alrawabdeh, and Zeglat (2014).

Apart from the structural determinants for implementing e-government services, other determinants also exist such as judicial requirements, paucity of regulations on e-services, inadequate partnership initiatives between government agencies and private sectors such as private-public partnerships (PPPs), lack of IT personnel and lack

appropriate technology skills from the public and government officials, and ignorance about available e-governance by employees of the government and the influence public on the utilization of e-government platform(s) in the Arabian kingdom of Saudia, Al-Nuaim's (2011).

Kenya has implemented 18 e-governance projects through the Information Communications Authority of Kenya (ICAK) since 2005. Studies conducted before on the organizational preparedness in e-governance show that in Kenya, the main organizational factors which determine the rate of success in projects of e-Government include: functions of the organization, prioritization of deliverables from the program, and organizational culture in adopting e-governance, Makau et al (2015).

### 2.1.5 Access to Information Technology

The key contributing factors to a successful e-government implementation can be classified into socio-cultural and economic, technological, and organizational factors. These can be considered in three stages: access to ICTs including technical and budgetary accessibility of ICT; expertise and awareness in the use of ICTs. Ziemba et al (2013), outlines factors like ICT infrastructure, rule of law, national wealth, human capital, and support from the leaderships in speeding up the implementation of e-government programmes capability by a country.

In India, access to e-governance is hampered by large illiterate populations. Most of the rural population in India is not able to use Information Technology, thereby the e-Governance projects fail to be successfully implemented. For instance, schemes launched by the government like gyandoot, Bhoomi, e-choupal, etc. where rural people were to be its end users and they failed to use these types of facilities provided by the government, Aggarwal (2017).

In Nigeria, socio-culture is a vital determinant in the e-government implementation where parameters like age, gender, and ethnicity determine the speed of acceptability of e-government servicing by a population. Three main facets of the program (e-government) were highlighted as: openness, ease of usage, and usefulness, as influenced by age,

gender, and ethnic background had a prominent role on the satisfaction index of e-government adoption by the general public, Akinlenke (2015).

Although Internet usage in Kenya has increased in the last decade, a cross-country assessment established that internet usage is constrained by infrastructural and cost-related factors. Workers in some urban setups experience constraints while using the Internet and other technology-related services. The constraints include availability, acceptance, and security, Wyche et al (2013).

### 2.1.6 ICT Infrastructure determinants of Implementing of E-Government Services

Acceptability of electronic based Government initiatives and its implementation in Saudi Arabia is highly determined by infrastructure costs, IT literacy, accessibility, availability, personal privacy issues as well as system trust issues. Costs of e-government implementation negatively affect e-government readiness of agencies to adopt and deploy technology in service delivery. Overall, several challenges affect e-Government adoption and implementation from two perspectives: from government agencies related to installation cost overlay and from citizens and employees using e-Government services, Basamh et al (2015).

In Sri Lanka, the provision of e-government services is determined by ICT infrastructure. Factors like infrastructure application(s), system security and protection, data and content management tools, application development are key factors of successfully implementing e-government, Karunasena et al (2012).

In Indonesia, the success of e-Government services implementation, is ICT infrastructure, a critical element for using e-Government services. From the government's point of view, successful implementation of e-Government is dependent on e-Leadership and e-training for employees. Infrastructure is the intermediary element between government and citizens, Rokhman (2011).

In Cambodia impediments of implementing e-Government, may include wavering leadership support, non-prioritization of e-Government, insufficient ICT infrastructure, low ICT literacy, and high ICT staff turnaround, Sang et al (2009).

In Nigeria, the state of ICT infrastructure remains a setback to e-government implementation in the public service sector. Additionally, there is no adequate access to internet connectivity, no reliable power supply in most public offices, and other related factors. Such factors determine the rate of implementing e-governance in public service, Abasilim et al (2015).

In Zambia, poor ICT infrastructure, illiterate public service, resistance to change, and non-contextualization of e-Government practices; lead to slow adoption of e-Government initiatives, Basamh (2014).

### 2.1.7 Organizational Culture in e-Government Implementation

In the country of Jordan, cultural organizational affected e-government implementation for example constant reminder change resistance by older users. The elderly cluster influence the opinion of the masses by the virtue of being the head of the household(s) and the leadership in society, therefore when the older members of the society are not properly and thoroughly given public education, they will be wary of new initiatives. For successful e-government services implementation, users should be properly informed of the advantages of using the new procedures of accessing government services electronically. The reasons for resistance to adopting new technologies are that users do not understand the benefit of accepting new initiatives and fear the effect new technology could have on their lives, AL-Naimat et al (2013).

The quality of e-services has two aspects; technological aspects being delivered versus functional aspects of delivered e-service. The human factors greatly influence how service is being delivered. It is worth noting that systems, if not properly manned cannot guarantee their effectiveness, Rust et al (2009).

A study in Nigerian public service, emphasizes the human element as a critical determinant in implementing of e-governance. That research work noted that technology is driven by human beings thus the human interphase to use and consume it is important. So, their willingness to operate and run public affairs on new technologies is crucial to successfully implement e-governance in public service. The main cause is that humans could truncate any benefits and innovations of e-governance bear.

Public servants' reluctance to implementation of e-governance in their services delivery resulted in the low rating of the e-governance of implementation by the Nigerian public service and elsewhere. The resistance is informed by computer illiteracy, low-level staff training, and non-involvement of staff in designing, training, implementation of ICT infrastructure, installation, and maintenance. To remedy this, the initiator and implementer of e-governance need to carefully look into human concerns which manifest in nonchalant attitudes, and resistance to change, which are solely responsible for the lack of proper use of ICT facilities provided by governments specifically in Departments, sections, and offices that require e-governance in their operations, thereby sabotaging government efforts, Abasilim et al (2015).

To determine the achievement rate of e-government, perception of its citizens on its value, social awareness, and actual services delivered to citizens, efficiency, and time factor, accessibility to quality services, and available information need to be measured and procedurally documented. Overall, the advantages of taking up e-government have been advocated by various academicians by emphasizing the factors that relate to citizens: humans and users, Park (2008).

Limitations on human skills, resources, and uncertainty of the benefits to be derived from online services also slow down the absorption of E-government. Both citizens and the drivers of E-governance require adequate skills and competencies on the use of services available electronically. In any E-government implementation endeavor, periodical and regular training and education are a prerequisite. When people cannot use the latest technologies, they will not support or take responsibility for the quality provided, Kapurubandara et al (2009).

### 2.1.8 Client processing

Satisfaction by the customer is the result of the comparisons between what the customer expects versus what the customer perceives after receiving a service. Putting it differently, customer satisfaction, therefore, is a difference between the quality of service provided and the real experience by a customer, According to Tripathi et al (2011). Therefore, the impression a customer has and the level of satisfaction is highly dependent on client processing. Client processing is the process applied by a business to ensure reliability, responsiveness, assurance, empathy, and technical aspects such as price, situational and personal factors that come up during service delivery. Huduma Centres offer services of civil registration, that is new, renewal, and replacement applications services. Some of the renewal services offered at Huduma Centres include Driving Licenses renewal and the duplication of Identity Cards. Application services include aan applications for HELB funds amongst others.

Otieno (2015) argues that clients receiving services at the Huduma Centre facilities did appraise the quality of service received at the centres being better than traditional departmental offices. The clients indicated that they were treated with respect and they felt valued at the centres which is something that they had never experienced before. The high client processing standards at Huduma Centres and the modern service delivery model in Huduma Centres are solely responsible for this. The Huduma Centres service delivery model adopts the use of management of knowledge portals. The system of using tickets, virtual desktop Infrastructure, and queue management system as well as instant feedback devices. The timeliness for delivery of services at Huduma Centres is dependent on the client requirement processing that is adopted by Huduma Kenya.

Client processing models are aimed at ensuring that customer service is performed at its excellence (Tripathi, 2011). The desired objective of having an outstanding client processing model is to ensure that the Huduma Centre are trusted worth, gives value for money, has a high reputation, meets deadlines, has high superior quality of services, processes are easily understood, can respond to criticisms, encourages as well as

demonstrates passion towards customers. Client processing is a major determinant of service delivery.

## 2.2 Conceptual Framework and Theoretical

### 2.2.1 New Public Management (NPM) concept and Digital Era Governance (DEG)

The New Public Management (NPM) is a theory used in explaining the new public service management approach undergirded by economic rationalization, efficiency, and cost-effectiveness by governments to run public service functions, (Osborne, 2013). The approach was established by academics in the UK in their efforts to make government functions more like businesses and efficiently by adapting private sector management models. The NPM's main focus is making the citizens the central part of government operations as recipients of government services. NPM makes a major assumption that the public sector can run more efficiently just like a private entity. The NPM reformers experimented with the efficiency of the approach by using decentralized models that gave local governments the freedom in their mode of delivering services to the citizens.

The NPM seeks to provide a paradigm shift from the old public service order replete with rigidities, bureaucracies, and red tape-ism' in service delivery. The old public administration approach focused so much on procedural issues than on product delivery which is the service offered to the citizens. The focus of NPM is customer satisfaction by increasing accessibility of services rendered, responsiveness to complaints and inquiries, and opening channels of feedback. This is unlike the top-down old public management approach.

To Osborne (2013), The New Public Management Model is customer-focused as citizens are viewed as customers, and the civil service is viewed as the managerial body. The civil servants under NPM work under incentive-based motivation where they are paid for their performance and clear goals are set from the start. The goals are later assessed using performance evaluations. The NPM model is a contrast to the traditional public service model in which public service was guided by a regulatory framework, legislation, and ideas. New public management has adapted approaches such as disaggregation, customer

satisfaction, customer initiatives, and the entrepreneurial spirit to improve delivery. The public manager gives the customer a continuum of options to choose on how best they would be served including the option to opt-out completely. NPM adapts strategies from the private sphere and uses them in the public sphere. The approach uses market forces to determine the accountability of the public sector. For the approach to be successful, information must be available.

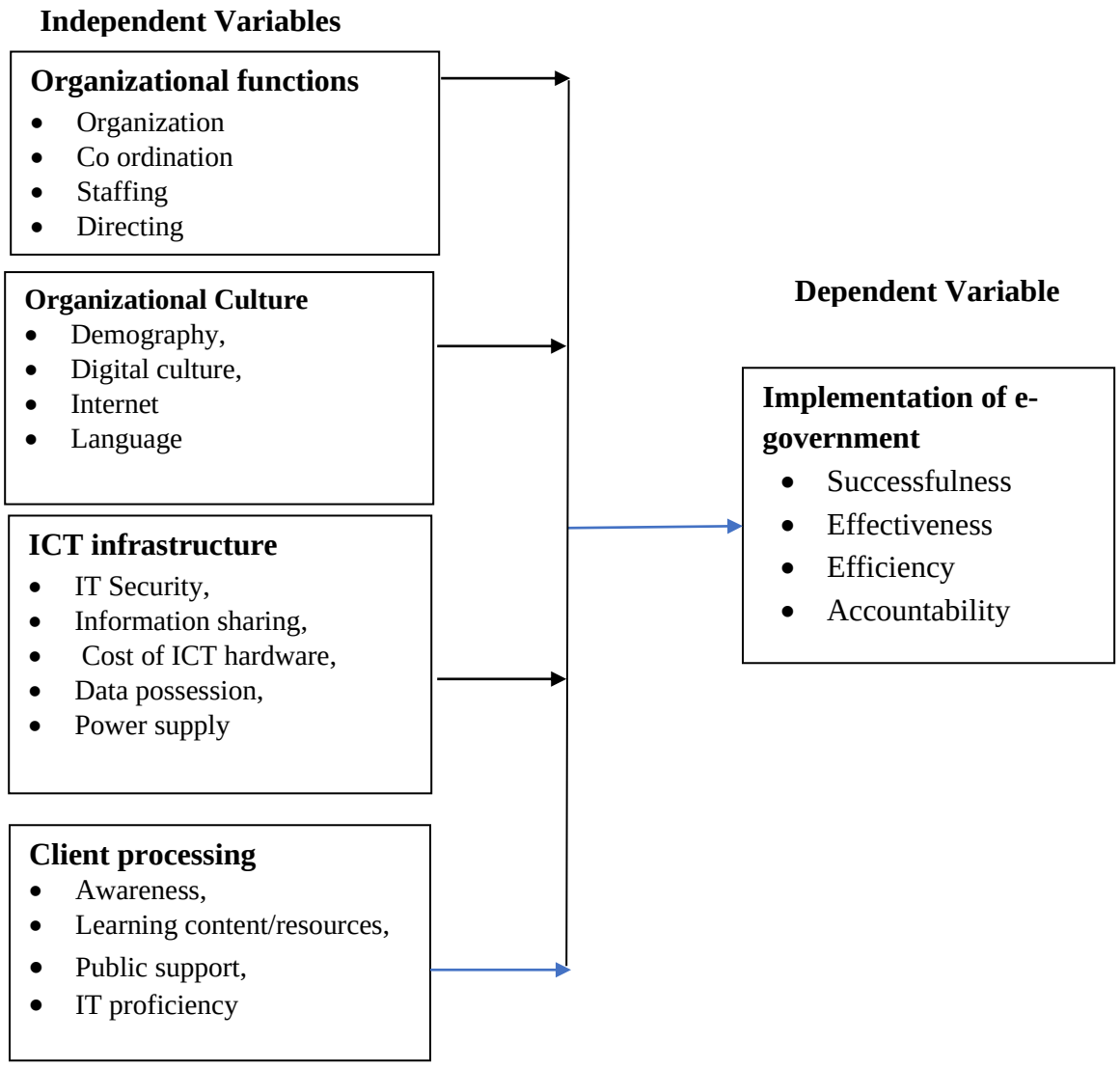
The New Public Management Model has been applied in advanced economies such as the UK and Scandanavia. The system has been successful as it has enabled the economies to perform to their maximum levels with minimum demands on taxpayers by reducing the costs of looking for services. Kenya is currently making efforts to modernize its public service delivery to enhance effectiveness and efficiency. The NPM model in Kenya is best demonstrated by public sector reforms as is the case of coming up with Huduma Kenya in general and specifically the Huduma centre(s).

Fitsilis, et al (2010) pointed out that the New Public Management theory as the new paradigm shift of public administration corrects the persistent failures and inadequacies that have been associated with public sector management over time. The NPM is supposed to address problems such as the size of the administration, mechanisms of accountability, wastage, and inefficiency in the use of public resources. The adoption of the NPM by developing countries is a transfer of policy from the developed to developing nations and it is an attempt by public enterprises to enjoy the autonomy and flexibility of the private sector which does not have a bureaucratic tendency of the public sector.

Following the success of the new public management approach, a new era of technology-based public management of government affairs emerged in early 2000. This came to be called the digital era governance. The digital era governance comprises the use of digital technology including the internet and the World Wide Web and a host of other enablers such as digital machines in the conduct of government business at all levels. Thus, DEG as an approach to government service management emerges as a direct affront to NPM which focuses on customer satisfaction more than how the satisfaction is achieved. DEG is about technology and its use in the running of government affairs.

Given the understanding of the two approaches, this study notes that both theories are relevant to the study since the theories make direct reference to the subject of study. We therefore will use both approaches in this study.

### 2.3 Conceptual Framework




**Description of variables**

**Figure 2.1: Conceptual Framework**

This study is conceptualized on two variables; independent and dependent variables. Independent variables include variables such as organizational functions and culture, ICT infrastructure, and client processing. These variables exist devoid of the dependent variable(s). The implementation of e-governance is the dependent variable of this research. This variable has elements such as success, effectiveness, efficiency, and accountability.

# CHAPTER THREE

# RESEARCH METHODOLOGY

## 3.1 Introduction

Chapter three of this study outlines the stages undergone by the researcher to get to the findings that are aligned to the objective of the study as well as address the stated problem. This section of the study delves into the research areas of design, population targeted sampling procedure, sampling frame, research instruments, piloting test, data collection procedures, and how the data so collected were processed, analyzed as well as how the research findings were presented.

## 3.2 Research Design

Descriptive research design was used in the course of this research project. A descriptive design includes inquiries on phenomena (survey) or association, Kothari (2012). A descriptive strategy was amalgamated with a survey design to comprehensively collect qualitative and quantitative data that added value to the findings of this research. This research design was chosen because the researcher collected and analyzed both quantitative and qualitative data concurrently during this research process and then merged both sets of results into a major interpretation. The qualitative phase focused on determinants of implementing e-government in Kenya through the Huduma Kenya programme in Nakuru town.

## 3.3 Variables

An attribute or quality of cases that are to be measured or recorded is known as a variable, Kombo et al (2006). An independent variable is a factor that the researcher perceives to explain variation whereas a dependent variable is the outcome characteristic that the researcher is attempting to predict.

Independent variables in this research were organizational functions, Organizational culture, ICT infrastructure, and client processing. The dependent variable is the e-government implementation. The study was conducted amongst its management staff, members of staff (front desk officers), and clients patronizing the office, with the aim of understanding determinants of e-government implementation specifically in Nakuru town.

### 3.4 Study Site

This research was undertaken in Nakuru town. Nakuru was selected due to its proximity to the researcher. One qualification of a suitable location to carry out research work is that it ought to be easily accessible by the researcher as well that which creates an opportunity for instant rapport with the informants, Singleton (1993). Nakuru County was selected also owing to its cosmopolitan composition, thereby the study stands to gain from the varied socio-cultural attributes observed by the staff in the implementation of e-government.

Nakuru Town lies 157 kilometers northwest of Nairobi. Nakuru town sits at an alevation of 1,850 m above the sea level. It is the fourth and latest city in the country. The town sprung up in 1900 as a resting camp by the Kenya-Uganda Railway construction workers before they started ascending the Rift Valley's Western or Londiani Escarpment. Nakuru has grown to become an important economic town with farming as the main activity. The town has a population of 307,990 inhabitants, thereby making it the highest densely populated urban centre in mid-west Kenya with Eldoret in Uasin Gishu County following closely behind.

### 3.5 Target Population

The cumulative total of all the elements from which the researcher intends to derive an inference constitutes what is known as the population**,** Cooper (2013). Target population describes an aggregate of individuals, institutions, or subjects that share similar or common traits of significance to the researcher. According to the Nakuru Huduma Centre management records obtained in September 2017, there are an averagely of 1250

customers who access services daily at the Centre. The report shows that there were 36 front desk members of staff, 24 supervisors and 2 managers manning the Centre. This meant that the target population comprised 1250 customers, 36 general staff, 24 supervisors, and 2 managers at Huduma Centre, Nakuru. The target population was further stratified according to the staff establishment structure to get as much mixed information as it was possible.

**Table 3.1: Target Population**

| Category | Population |
|---|---|
| Front desk Staff | 36 |
| Supervisors | 24 |
| Management Staff | 2 |
| Customers | 1250 |
| **Total** | **1312** |

### 3.6 Sampling Techniques and Sample Size

This area expounds on the technique of sampling as well as the size of the sample that was used during this study.

#### 3.6.1 Sampling Techniques

A sampling frame is a comprehensive schedule of all its viable sampling units from where a sample may be chosen. For this study, all the front desk members of staff, management staff, and clients seeking services formed the study sample. A simple random sampling technique was used in the selection of a sample for Huduma center staff. A simple random sampling technique is a selection approach that gives equal chances to each sample probability of being selected. Each individual of the total population had an equal opportunity of being chosen for the sample, Kothari et al (2014).

### 3.6.2 Size of the Sample

Because it's not possible to study all individuals of a population due to constraining on time and resources, a proportion of the population was selected. This is known as a sample size which refers to a section of the population used in a study for the sake of generalizing the outcome. During this study, the researcher deployed two sampling formulas for the sole purpose of enlarging the sample size, as opposed to using a single sample size technique which would have given an unfair representation of the members of staff.

**a) Determination of Customers Sample**

The sample size for respondents was calculated using the sample size formula below

$$n = \frac{Z^2 pqN}{e^2(N-1)+Z^2pq}$$

Where:

n = is the sample size for a finite population

N= population size that is the number of members

p = population reliability (or frequency estimated for a sample of size n), where p is 0.5 which is taken for customers' population and

p + q= 1

e: error margin considered is 10% for this study. Z α /2: normal reduced variable at 0.05 level of significance z is 1.96

going by the formula above, the sample size for customers is:

$$n = \frac{(1.96)^2 \times 0.5 \times 0.5 \times 1250}{(0.1)^2 (1250 -1) + [(1.96)^2 \times 0.5 \times 0.5]}$$

$$= 89.25385$$

$$= 90 \text{ Customers}$$

The size of the sample was equivalent to 90 customers, (Kothari, 2004: 179)

**b) Determination of Huduma Staff Sample**

The sample for Huduma staff was computed based on a recommendation by Gall et al (2003) of 50% of the population, that N (50%). Whereby, N is the study population.

In this regard,

i. Front desk members of Staff Sample = 42(50%) = 21 general staff
ii. Supervisors' Sample = 24(50%) = 12 Supervisors
iii. Manager and deputy manager= 4(50%)= 2 managers

This, therefore, meant that the sample for staff comprises 21 general staff, 12 supervisors, and 2 managers. That is 35 members of staff.
The sample matrix for all the respondents is as provided in Table 3.2.

**Table 3.2: Sample Distribution Matrix**

| **Category** | **Population** | **Sample Size** |
|---|---|---|
| Front desk members of Staff | 42 | 21 |
| Supervisors | 24 | 12 |
| Management Staff | 4 | 2 |
| Customers | 800 | 50 |
| **Total** | 870 | 85 |

Information was provided by the manager of Nakuru Huduma centre.

### 3.7 Instruments of the Research

The researcher deployed questionnaires to collect research data from the staff fraternity and their customers, whereas data from the management was collected by scheduled interviews. Primary data was raised from personally administered, semi-structured questionnaires and interview schedules. Kombo, postulate that: by use of questionnaires, data can be generated from a larger sample, within a limited time, thereby upholding confidentiality, in addition, eliminating chances of interview bias, Kombo (2006).

#### 3.7.1 Questionnaires

Data from the front desk of Huduma Centre's staff and customers was collected by the use of Questionnaires. The questionnaires for the staff were divided into 5 parts. Part A aimed at capturing the personal information of the respondents. Part B focused on organizational structure and e-government, Part C centred on Client processing, and Part

D on ICT infrastructure and e-government. Part E capture data on Organizational culture, while Part F collected information on the implementation of e-government at Huduma Centre (the dependent variable). The suitability of the questionnaires approach for data collection is its flexibility to the researcher to interact with a large sample within a short time as well as its assurance of anonymity of the information given by the respondents. This study questionnaire contained open-ended and close-ended questions that were graded on a 5-point Likert scale.

### 3.7.2 Scheduled Interview

Scheduled Interview was used to source information from Huduma Centre's management on the implementation of e-government as well as the managers' viewpoint on how organizational functions, Client Processing, ICT infrastructure, and Organizational culture determine the e-government implementation initiative at the Huduma Centre. Farooq (2013) defines an interview schedule being the guide a researcher uses when conducting a structured interview. The interview schedule, which is a single-page instrument, was made-up precisely of open-ended questions.

## 3.8 Study Piloting

Well in advance of plunging into real research, a test run is carried out to establish the appropriateness and accuracy of the design and instrumentation of the research, Saunders et al (2007). A pilot study was tested at Nakuru town Huduma Centre for 10% of the samples, which were 4 Huduma Centre front office staff and 9 customers. During this study, deliberate measures were taken to eliminate piloting participants in the main study. However, the outcome realized from the pilot exercise was considered in improving the quality of the overall research instruments.

### 3.8.3 Pilot testing

A data collection test run had to be carried out before the real collection of data began. The outcome of the piloting stage were utilised to determine the reliability of the questionnaire. As shown in figure 4.2, the reliability of the questionnaire was determined using Cronbach's alpha which was computed by using SPSS version 21.

**Table 3.3: Cronbach Alpha Results**

| Variable | No. of Items | Cronbach alpha |
|---|---|---|
| Organizational functions | 7 | 0.843 |
| Access to ICT | 6 | 0.757 |
| ICT infrastructure | 6 | 0.786 |
| Organizational culture | 6 | 0.743 |
| E-government implementation | 7 | 0.815 |

As displayed in the table above, the main variables of the study had a scale of above 0.7, a scale of above 0.7 is of acceptable consistency which meant that the questionnaire did not need to be adjusted.

### 3.9 Validity and Reliability

#### 3.9.1 Validity of Research Instruments

Before the actual data collection, the research instrument's validity has to be confirmed (Drost, 2011). The researcher conducted both construct and content validation whereby, content validity was established with the aid of an expert (University Supervisor) to determine the representativeness of items in the sample in the area to be measured. The researcher worked closely with the expert in maintaining the reliability of the instruments, in ensuring that all the research objectives were addressed from the information sought in the instruments. The findings of the pilot study went a long way in improving the questionnaire, thereby enhancing its dependability.

#### 3.9.2 Reliability of Research Instruments

The stability or internal consistency of the questionnaire is about the variables addressed known as its Reliability. For most studies, Cronbach's alpha was used to test the reliability of the measures in the questionnaire. The score thus obtained is correlated with others in the research instrument Sekaran (2006). The Cronbach's Coefficient Alpha was then computed to determine how items correlated. A value above 0.7 was the acceptable range. The questionnaire responses were processed by use of a statistical package for

social sciences (SPSS) and the Cronbach's alpha coefficient computed to assess reliability. The closer Cronbach's alpha coefficient is to 1, the higher the internal consistency reliability (Sekaran, 2006), therefore reliable for collecting data.

### 3.10 Procedures Data Collection

Research data was collected through researcher aided interview schedules and self-administered questionnaires. Both tools were responded to under the guidance of the researcher. A conducive atmosphere to the respondents was sought by the researcher, to enable the respondents to open up and respond to the questions honestly.

Before embarking on answering the questionnaires, the respondents attention was drawn to the purpose of the study as well as assured of the researcher's confidentiality for the information given. The researcher was committed and indeed kept the response confidential by avoiding seeking the identity of the individual respondents.

### 3.11 Data Analysis Procedures

The study generated quantitative and qualitative data. Quantitative data was raised through questionnaires whereas qualitative data was through interview schedules. The collected data was put into categories, edited, coded, then analysis was carried out. Editing was to make sure that the responses were given to all questions, accurate and worthy to conclude from. Questions whose responses were in the Likert scale were computed by assigning values in numbers to enable quantitative analysis. Later data was electronically captured and analyzed by the use of SPSS version 23 software.

Data realized quantitatively were computed for descriptive statistics (frequencies, means, and percentages) by the use of SPSS Version 23. Pearson correlation was used to establish the association between the independent variables and was subjected to a 0.05 test significant value. Such techniques indicate the direction and magnitude of the relationship between the independent variables and the dependent variable (Mugenda, 2008). To determine the significance of relationships between organizational functions, Client Processing, ICT infrastructure Organizational culture, and the dependent variable

(implementation of e-government) regression analysis was deployed to illustrate the extent to which these factors determine the implementation of e-government.

Qualitative data obtained from the open-ended items were analyzed thematically. The main patterns and themes in the responses were pinpointed and analyzed to determine the usefulness, adequacy, and consistency of the information. The results were represented in tables and charts form.

## 3.12 Management of Data and Ethical Considerations

### 3.12.1 Management of Data

Management of research data is a crucial part of the research process, and functions to improve the efficiency of the research process as well as meet expectations and standards set by the university, and legislation, Friedhoff et al (2013). It is concerned with the organisation of data collected from the field. Data processing is important for successful analysis.

To guarantee data security, safety and, decisions were made diligently about which software(s) are more appropriate, for this research, SPSS version 23 was selected. Qualitative and quantitative data were separated then captured into the program, secured in a permanent form in the external media as well as a hard disk. To enhance the stored data security, the storage has been subjected to limited access whereby passwords will be used and in future will only be shareable upon express permission from the researcher. Putting it differently, the data is safe from manipulation, corruption, contamination, or sudden loss, and backup storage was put in place. The data was stored in a stable form that will allow access and be comprehensible in the immediate, midterm, or distant future.

While storing data, the researcher put measures in place that stored the data in an accessible and stable format that would permit accessing and reading the data without manipulation. Various formats were deployed which include Textual data: Tabular data (including spreadsheets): CSV Databases (SPSS), PDF/A (Archival PDF), TXT (Microsoft word), and JPEG. The researcher understands that JPEGS are a ‘lossy’ format

that loses information when re-saved, so would only use them if they are not concerned about image quality). However, in this study the most appropriate formats.

### 3.12.2 Ethical Consideration

Upon completion of the post-defence corrections, the researcher was issued with an authorization letter by Kenyatta University paving the way for data collection. And in compliance with the laid down ethical consideration, the researcher obtained a clearance letter from the National Council for Science, Technology, and Innovation (NACOSTI). This letter was presented to the Huduma Centre management for authorization to conduct research at the premises. An introduction letter to the respondents stating the reason for the study as well as a declaration that information provided will be held in confidence was also made available and attached to each questionnaire. The main aim of the study was communicated to each respondent before embarking on seeking data. The respondents were given an assurance of confidentiality for the information provided by keeping individual identification anonymous.

# CHAPTER FOUR

# FINDINGS, DISCUSSIONS, AND INTERPRETATIONS

## 4.1 Introduction

The study examined the factors that determine the implementation of e-government services in Huduma Centre Nakuru. This was in light that the government of Kenya had decided to digitize most of the government services which can be accessed through Huduma Centres. The data was collected from a sample of Nakuru Huduma Centre employees and customers. 34 structured questionnaires were administered to Huduma Centre employees and 47 questionnaires were administered to customers. The chapter discusses and presents the outcomes of the study. The chapter is broken down into various sections including the response rate, the background information of the respondents, the descriptive analysis.

## 4.2 Response rate

Response rate is a specific number of respondents who were able to take part in the study questionnaires against the targeted respondents. It is important to determine the response rate for the consumers of the research to be able to determine the non-response bias, Wiseman (2003). The non-response bias is defined as the error that occurs when there's a huge gap between the population that responded and the population that was targeted. The response rate of this study is as explained below.

**Table 4.1: Participation Rate**

| **Category** | **Frequency** | **Percentage** |
|---|---|---|
| Participation | 81 | 95.2% |
| Non-participation | 4 | 4.8% |
| **Total** | **85** | **100.0** |

As displayed in the table above, out of the 85 respondents who were targeted, 81 respondents were able to complete the questionnaires and hand them over to the researcher. The figure translates to 95.2% of the target population. Mugenda and Mugenda (2003) posits that a response rate of more than 70% is excellent. The high response rate from the study significantly reduces the non-response bias.

### 4.3 Respondents Gender

Participation of the respondent was also factored in by looking at the gender stratification by either being male or female. As indicated in the table below;

**Table 4.2 Distribution of the customers by gender**

| Gender | Frequency | Percentage |
|---|---|---|
| Male | 31 | 54.4 |
| Female | 26 | 45.6 |
| **Total** | **57** | **100.0** |

**Table 4.3 Distribution of staff by Gender**

| Gender | Frequency | Percentage |
|---|---|---|
| Female | 13 | 38.2 |
| Male | 21 | 61.8 |
| **Total** | **34** | **100.0** |

As demonstrated in Tables 4.3, 45.6% of customers who sought services from the Huduma Centre were female while 54.2% were male while 61.8 percent of the staff who work at Huduma centre are male compared to only 38.2% who are female. From these statistics, it's evident that the views of both sexes are adequately represented in the report. The findings were also consistent with a survey conducted by the Public Service

Commission (2016) that revealed that about 70% of public service employees are male against 30% of employees who are female.

### 4.4 Age of Respondents

This research also considered the age bracket of the respondents, to gain a deeper understanding of the general population. To achieve this, the respondents' ages were broken into five groups. The outcome of the information is as demonstrated by table 4.5 and table 4.6.

**Table 4.4 Distribution of customers by Age Category**

| Age Brackets | Frequency | Percentage |
|---|---|---|
| 18 – 27 years | 31 | 54.4 |
| 28 – 37 years | 14 | 24.6 |
| 38 - 47 years | 7 | 12.3 |
| Above 48 years | 5 | 8.8 |
| **Total** | **57** | **100.0** |

**Table 4.5 Distribution of staff by Age Category**

| Age Brackets | Frequency | Percentage |
|---|---|---|
| 21-30 years | 15 | 44.1 |
| 31-40 years | 11 | 32.4 |
| 41 and above | 8 | 23.5 |
| **Total** | **34** | **100.0** |

As illustrated in the above findings, the largest number of respondents, both staff and customers were below 30 years. 54.4 % of the customers who responded to the study were in the range of 18-27 years. 44.1% of the staff who responded to the study were aged between 21 and 30 years. The study incorporated views from all age groups with the least represented age group being above 48 years for customers and above 41 years for staff.

### 4.5. Years of Service

The period that the staff had held their current position was examined. The reason for the examination of this period was to determine whether the respondent could provide accurate information regarding the current status of the position they held. The respondents were divided into four categories based on the duration they have stayed in their current position as shown in table 4.6.

**Table 4.6 Number of years in current work position**

| Years worked | Frequency | Percentage |
|---|---|---|
| Below 5 years | 24 | 70.6 |
| Between 6-10 years | 5 | 14.7 |
| Between 11-15 years | 2 | 5.9 |
| **Total** | **34** | **100.0** |

As demonstrated in the above table, the majority of the subjects (70.6 %) in this study had held their current position between one (1) and five (5) years. 14.7 % of the employees had worked in the centre for 6-10 years while only 2% had retained their position for more than 10 years. This demonstrated that 100% of the respondents of the study were in a position to respond to the questionnaire adequately.

### 4.6 Respondents highest education level

The highest educational attainment for the staff was also examined and results are as shown in figure 4.6.

**Table 4.7 Distribution of Respondents by Highest Education Level**

| Level of Education | Frequency | Percentage |
|---|---|---|
| Diploma | 10 | 29.4 |
| Bachelors | 24 | 70.6 |
| **Total** | **34** | **100.0** |

As illustrated in the above figure, majority of the respondents (70.6%) had obtained a first-degree level of academic qualification. The data is logical since the department is mostly run by ICT personnel who are highly technical and therefore require a high level of education.

### 4.7. Frequency of Visit to Huduma Centre

The number of times that the customers had visited the centre were also examined. This was to determine whether customers were served well enough to want to seek the services gained. The responses were categorized into four as tabulated below.

**Table 4.8 Respondents Distribution as per frequency of visiting the Huduma centre**

| Level of Education | Frequency | Percentage |
|---|---|---|
| First time | 9 | 15.8 |
| Regularly | 29 | 66.7 |
| Rarely | 19 | 33.3 |
| **Total** | **57** | **100.0** |

As determined in Table 4.7, many respondents (66.7%) were regular visitors to Huduma Centre. 15.8% were first-time visitors while 33.3 % rarely visited the centre.

### 4.8 Services Sought

The survey also examined the services sought by customers at the Huduma Centre. The main use of this data was to aid in determining the e-government services that attracted the most attention. The outcome is as represented in the following table.

**Table 4.9 What services do you seek from Huduma Centre**

| | Frequency | Percent |
|---|---|---|
| | 2 | 3.5 |
| Birth certificate | 10 | 17.5 |
| CRAB | 1 | 1.8 |
| CRB Services | 2 | 3.5 |
| Electricity services | 1 | 1.8 |
| Good conduct | 4 | 7.0 |
| HELB | 4 | 7.0 |
| ID replacement | 21 | 36.8 |
| KRA | 2 | 3.5 |
| License | 1 | 1.8 |
| NHIF | 6 | 10.5 |
| Pension | 1 | 1.8 |
| Stamp Duty | 1 | 1.8 |
| Various services | 1 | 1.8 |
| Total | 57 | 100.0 |

As illustrated in Table 4.8, the highest percentage (36.8 %) of respondents sought the service ID replacement. Other services that were frequently sought were birth certificates with a percentage of 17.5% and NHIF services with a percentage of 10.5%. HELB and Good conduct services were also fairly sought with 7% each, while all the other services had a percentile of below 5%.

### 4.9 Descriptive analysis

The section addresses the outcomes of descriptive analysis, whose aim was to examine the existing situation in matters of e-government implementation. This part has been organized according to the study variables.

#### 4.9.1 Implementing E-Government

Implementation of e-government services delivery was the dependent variable of this study. It was therefore imperative for the study to examine the existing state of the implementation of e-government services. Specifically, the study aimed to examine the effectiveness of the Huduma centre in implementing e-governance. To achieve this, the respondents of the study were presented with four statements relating to the implementation of e-government services and were required to indicate their agreement to each of the statements provided. The results are as summarized below:

**Table 4.10 Descriptive statistics for implementation of e-government services**

| | N | Mean | Std. Deviation |
|---|---|---|---|
| 1. Most of our services are accessible using electronic platforms such internet and SMS | 34 | 3.94 | 1.013 |
| 2. A large number of our services are delivered through electronic platforms. | 34 | 2.88 | 1.008 |
| 3. The number of customers seeking services in our service hall has decreased after the introduction of e-services. | 34 | 2.15 | .892 |
| 4. Most of the organizational functions such as finance and human resource management have been digitized. | 34 | 3.97 | .870 |
| **E-Government Implementation Aggregate Mean** | **34** | **3.24** | **.522** |

As illustrated in table 4.11, the implementation of e-government services was assessed by using four items. The item with the highest aggregate mean was item number 4 with an average score of 3.97 which implied that on average, the respondents agreed that most of the organizational factors such as finance, human resource management, and other functions had been digitized. The findings went in line with a study undertaken by Siddique and Mohamed (2015) in Malaysia that noted that the implementation of e-government services had improved service delivery and organizational functions and the ease of access of services by government employees. There was improved interaction between the government, its employees, and citizens after the implementation of e-government services. The findings also power up the NPM theory which argues that governments are likely to adopt new technologies which promote interaction between users (Hooker et al., 2015).

The item with the second-highest aggregate means was item number 2 with an aggregate score of 3.94. Averagely, the respondents agreed that most of the services offered at this Huduma centre could be accessed through electronic platforms such as short message service in SSD code format and internet. The findings agree with a survey that was conducted by the department of economic affairs of the UN (2014) which observed that Kenya and Morocco were the leading countries in the digitization of government services. The conclusion is drawn this study collaborated the findings of another study by Kariuki (2015) that noted that the proliferation of mobile phones in the country has led many government ministries to adapt SMS services and mobile applications to aid in the delivery of their services. The study by Kariuki also noted the adoption of online payment services such as M-pesa and the political goodwill whereby many politicians have supported the use of ICT in the governance of the country.

Item number 3 had an aggregate mean of 2.88 pointed out that the study found out that the majority of e-government services are delivered using electronic platforms. The difference between the aggregate mean of item number two and item number one suggests that though the government has digitized most of its functions, most of the functions are not being delivered through the online platforms and citizens have to visit physical offices to get those services.

Item number 3 had the lowest aggregate mean of 2.15. The statement that the respondents barely agreed with suggested that the number of customers had decreased since the implementation of e-governance. The findings suggest that many citizens are either unable to utilize electronic government services online due to limitations such as illiteracy or because they don't have online gadgets such as smartphones to access the services. Additionally, the findings might also hint that Kenyan citizens are stuck to the culture of visiting government offices physically to receive the services they so desire

The aggregate e-government implementation means was achieved by summing up the individual mean of all the four statements then dividing the mean by 4. As shown in Table 4.7, the aggregate mean was 3.22 against the highest possible mean of 5. This indicates that the respondents agreed that e-government implementation was successful.

### 4.9.2 Organizational functions

The organizational function was one of the other factors that the study presumed to have an impact on the implementation of e-government. The organizational function was a term used to refer to the technical expertise of the employees to carry out required government functions. To assess the organizational functions of the centre, it was imperative to assess the capacity of the centre. Concerning this, the research participants were presented with six statements and were required to indicate their level of concurrence with each of the given statements.

**Table 4.11 Descriptive statistics for organizational functions**

| | N | Mean | Std. Deviation |
|---|---|---|---|
| 1. Top management support | 34 | 4.06 | 1.179 |
| 2. Resistance to change to electronic ways | 34 | 3.12 | 1.122 |
| 3. Level of coordination | 34 | 3.74 | .994 |
| 4. Collaboration among the staff | 34 | 3.91 | 1.111 |
| 5. Lack of qualified personnel and training | 34 | 2.94 | 1.413 |
| 6. Directing function by the management | 34 | 3.38 | 1.393 |
| **Organizational Function 34 Aggregate Mean** | | **3.52** | **.987** |

As illustrated by table 4.11, the item with the highest mean score was item 1 with an aggregate mean of 4.31. This means that the respondents agreed with the top management giving adequate support to ensure that the implementation of e-government services was a success. Top management support among government employees is a major necessity for successful e-government implementation. As Alshehri *et. al* (2012) observed, top management support is necessary as it reduces the employee's resistance to e-government initiatives. Sefeena and Kammani (2013), observed that e-government adoption was highly influenced by the support junior employees received from the top management.

The item with the second-highest aggregate mean score was a collaboration among the staff which recorded an average of 3.94. The score suggests that a bigger percentage of the respondents concurred that where there was a collaboration among the staff and they were willing to work together, implementation of e-government services became easier and more effective. The item closely relates to item number 1 as it involves support and teamwork to implement the e-government services. The collaboration of the staff with each other has a major influence as employees need to work in teams and transfer data and information to each other to make implementation successful.

Item 3 had the third-highest aggregate mean of 3.74 which suggests that there was an average level of agreement among the respondents that the level of coordination played a pivotal role in ensuring the success of the e-government platform. The findings agreed to an earlier study conducted that concluded that coordination levels in a department play a big role in the success of initiatives undertaken in that department (Nurdin et.al, 2011). The study also suggested that: internal integration, which refers to effective coordination of different departments has to be efficient. Coordination can be realized when the employees are involved in the implantation of government initiatives.

Item 6 had an aggregate mean of 3.38 which suggests that the respondents disagreed that the directing function played a critical part in the implementation of e-government. Item 2 had an aggregate value of 3.12 which suggested that respondents didn't think that resistance to electronic ways of providing e-government services played a prominent role in the implementation of e-governance. The item with the lowest aggregate mean was item 5, with a mean aggregate of 2.94 which suggests that respondents barely agreed with the statement that lack of qualified employees and technical personnel reduced the effectiveness of e-government implementation.

In summary, the mean aggregate score for organization functions was 3.52 which suggested that respondents averagely agreed that organizational functions played a cardinal role in the implantation of e-government in Nakuru Huduma Centre.

### 4.9.3 ICT Infrastructure and E-Governance

ICT infrastructure was also another factor that was demonstrated to determine the implementation of e-government. To determine the extent of its influence, the study sought to examine the existing situation in regards to ICT infrastructure within the centre. In regards to this, the research participants were requested to rate their concurrence on a five-point scale according to the nine statements provided in the questionnaire.

**Table 4.12 Descriptive statistics for ICT infrastructure**

| | N | Mean | Std. Deviation |
|---|---|---|---|
| 1. IT Security (technology security and privacy measures) | 34 | 4.00 | .985 |
| 2. Network security concerns | 34 | 3.68 | .878 |
| 3. Collaboration and information shared across within agencies of the government | 34 | 3.85 | .657 |
| 4. Balance of sharing between different levels of government. | 34 | 3.44 | .927 |
| 5. Cost of ICT hardware | 34 | 3.59 | .957 |
| 6. Data possession | 34 | 3.76 | .654 |
| 7. Availability of relevant ICT infrastructure | 34 | 4.15 | .857 |
| 8. Power supply | 34 | 3.76 | 1.182 |
| 9. System functionality | 34 | 4.12 | .880 |
| **ICT Infrastructure Aggregate Mean** | **34** | **3.82** | **.580** |

As demonstrated in table 4.13, item 7 had the highest aggregate mean, suggesting that respondents recorded the highest mark of concurrence with this statement. Item 7 states that there's the availability of the relevant ICT infrastructure to run the centre. For e-governance to be successful, it requires the availability of desktop computers, laptops, tablets, and other related gadgets. The findings on the availability of the necessary infrastructure contrast with the findings of an earlier study done by Panos (2012) who asserted that the insufficiency of ICT infrastructure was the main barrier towards the implementation of e-governance. Additionally, the findings of this study defy the

findings of Gichova (2010) who found out that the public sector is characterized by insufficient ICT infrastructure and insufficient budgets and funds to run infrastructural projects.

Item 9 had the second-highest mean of 4.12 suggesting that respondents had a high agreement on that statement. Item 9 stated that the systems in the centre were highly functional. System functionality implies that the systems are well maintained. A highly functional system ensures ease of access to government systems and eliminates delays (Rose, 2012). IT security had an accumulated mean of 4.00 thereby indicating that most of the participants of this research concurred with the privacy measure to secure data and information stored on this centre. Information security and data confidentiality is required of the IT systems and software's as the centre deals with confidential information that could otherwise be misused.

Data possession had an aggregated mean of 3.85 and the collaboration of shared information outside the bounds of government agencies had an aggregate mean of 3.76. This implies that the respondents had an average level of agreement on the two statements. Data possession is an important factor determining e-government implementation. Possession of the right kind of information, whenever needed, is effective in ensuring that citizens can access any information relating to their needs at any given time. Information shared across the different departments in an organization should collaborate to ensure the smooth and effective operation of the centre as it reduces delays and discrepancies.

Network security concerns had an accumulated mean of 3.68 implying that respondents averagely agreed that they were concerned about how safe the information was as it was shared across boundaries. The cost of ICT hardware had an aggregated mean of 3.44 asserting that most respondents thought that the cost of ICT hardware did not greatly influence the implementation of ICT hardware:

**Access to ICT and implementation**

This research also sought to examine the influence of access to ICT on e-government implementation. The influence was assessed by providing the recipients with a set of statements from which they were supposed to rate their level of agreement on a five-point scale. Outcome was as represented in the following table:

**Table 4.13 Descriptive analysis for access to ICT and implementation**

| | N | Mean | Std. Deviation |
|---|---|---|---|
| Access to Next Generation Mobile Services (NGMS), generally known as 3G and 4G LTE services | 34 | 3.82 | 1.086 |
| Low level of Information and Communication Technology literacy | 34 | 2.88 | 1.452 |
| Limited web accessibility | 34 | 3.47 | 1.419 |
| Limited access to the internet (Connectedness) | 34 | 3.47 | .992 |
| Limiting knowledge of and the capacity to operate specific technologies | 34 | 3.09 | 1.264 |
| Accessibility to electricity (Acceptance of unequal distribution of power) | 34 | 3.00 | 1.326 |
| Uncertainty avoidance (members of society feeling uncomfortable about the use of ICT) | 34 | 2.65 | 1.152 |
| **Access to ICT Aggregated Mean** | **34** | **3.20** | **.717** |

As shown in table 4.14, access to Next Generation mobile services (NGMS), had the highest mean score suggesting that on average, a lot of respondents agreed that they had access to 3G and 4G LTE services. Limited web accessibility and Limited access to the internet had a mean score of 3.47 each which indicated that a lot of respondents averagely agreed that they did not have access to the internet and the web. This corresponds with the results of a study by Rose (2012), who discovered that a lot of Kenyans especially in

the rural locations lacked sufficient access to internet services and were barely connected to the internet (Rose, 2012).

Limited knowledge about and ability to operate specific technologies had a mean score of 3.09 which indicated that a lot of respondents barely agreed to this truth. The respondents, therefore, felt that they could be able to operate technologies that related to ICT infrastructure. Power distance, that is, acceptance of unequal distribution of power had a mean score of 3.00 suggesting that there was a relatively low level of agreement with the statement. As such, most respondents agreed that there was an equal distribution. Uncertainty avoidance, that is, members of a society feeling reluctant about the use of ICT infrastructure had an aggregate score of 2.65, this points out that there was a low level of agreement to the given statement. A low level of ICT literacy had a mean score of 2.88 implying that the respondents had a low agreement with the statement and that they believed that Kenyans had high levels of ICT literacy. The aggregate score for access to ICT and implementation was 3.20 out of the highest possible score of 5. This implies that based on the seven items on the scale, respondents rated access to ICT infrastructure and implementation towards e-government implementation relatively low, and agreed that most people have access to ICT in. infrastructure and implementation.

### 4.9.4 Organizational culture

Organizational culture was one of the determinants for implementing e-governance through Huduma Centre Nakuru. The term refers to the ease of accessibility of public services by the citizens and staff to deliver services. To establish the extent of influence organizational culture had, in this regard, the respondents were presented with a set of six statements where they would rate their agreement on a five-point scale. Results are as shown below;

**Table 4.14 Descriptive statistics for organizational culture**

| | N | Mean | Std. Deviation |
|---|---|---|---|
| Citizen Understands of the benefits of the new procedures | 34 | 3.38 | 1.155 |
| Periodical / regular training and education | 34 | 3.53 | 1.308 |
| Citizens' skills on the usage of existing E-government services | 34 | 3.76 | 1.281 |
| Technical skills and competencies of drivers of E-government | 34 | 3.76 | 1.208 |
| User's Internet knowledge and computer usage | 34 | 3.59 | 1.048 |
| Staff retraining and skill developments | 34 | 3.94 | 1.229 |
| **Organizational Culture Aggregate Mean** | **34** | **3.66** | **.987** |

As demonstrated in table 4.15, staff retraining and skill developments, had the highest mean score of 3.94 suggesting that averagely the respondents had a relatively high level of agreement that the staff need a lot of retraining sessions and skill developments so that they can be able to deliver the services even better, this is because on job retraining equips them with latest technical know-how, it also reduces the time for deploying new technology. As Alshehri *et.al* (2012) observed, retraining programmes among staff facilitate effective implementation of e-government services as it improves the ability of employees to deliver services. A study by safeena and Kammani (2013) discovered that staff retraining and development programmes improved their ability to deliver technology-aided services.

Citizens skills, technical capacity, and competencies had the highest mean score of 3.76 suggesting that respondents had a high level of agreement with the statement that, citizens skills on the usage of e-government services, technical capacity and competencies did determine the implementation of e-government services. The statement reinforces the earlier finding that access and capability to use ICT infrastructure played a

major role in the implementation of e-government services. The capacity of citizens to use the online platforms for e-government implementation is expected to have a great influence on the implementation of e-government.

Citizens' understanding of the new procedures has an aggregate mean of 3.38 suggesting that the respondents had a low agreement with the statement. Thus, most of the respondents thought that citizens lacked the understanding of the new procedures that have been put forward to enhance the implementation of e-government. Periodical training and education of users and staff had a mean score of 3.53 suggesting that most respondents barely agreed that there were periodical training of staff and citizens to create awareness.

The mean aggregate score for organizational culture was 3.66 out of the possible highest score of 5. This score implies that respondents had a low level of agreement that organizational culture had a significant determination of the implementation of e-government services in Huduma Centre Nakuru.

# CHAPTER FIVE

# SUMMARY, CONCLUSION, AND RECOMMENDATIONS

## 5.1 Introduction

The study was meant to understand the determinants of implementation of e-government through the Huduma Centre services in Nakuru Town. The data was collected from 34 staff members and 50 customers. The data realised was analyzed by use of descriptive statistics. This chapter presents the key findings of the research work in a summary form, the recommendations of the study, and an invitation for continued studies.

## 5.2 Summary

The following were the key findings of the study:

The study sought to understand the role that the organizational culture played in implementing e-government. From the descriptive analysis, the influence of organizational culture had an aggregate mean of 3.66. Staff retraining and development had the highest score of 3.94 while citizens understanding of the benefits of the new procedures had the least score of 3.38. This implies that educating the citizens on the benefits of new procedures in the delivery of government policies can greatly improve the delivery of e-government services.

The objective of this research was to determine the influence of access to ICT on the implementation of e-government services. The descriptive analysis of the study showed that access to ICT had an aggregate mean of 3.20. Access to Next-Generation Mobile services had the highest score of 3.82 while uncertainty avoidance had the least score of 2.65. The findings imply that e-government implementation can be more effective when members of the society are encouraged to use ICT infrastructure within their reach.

The third objective of the study was to determine the influence of available ICT infrastructure on e-service delivery by the Huduma Centre. From the descriptive findings, ICT infrastructure had an aggregate mean of 3.82. The findings implied that ICT infrastructure had a significant influence on the implementation of e-government. System functionality had the highest score and the cost of ICT hardware had the least score. These findings imply that e-government implementation can be more effective if the cost of ICT hardware was lowered thus improving the range of gadgets and platforms at the disposal of the members of the public.

The final objective of the study was to determine the part played by organizational function in the e-government implementation at the Nakuru town Huduma centre. Descriptive findings found out that respondents gave the organizational functions a mean score of 3.52. Higher-level management support had the highest score of 4.06 and lack of qualified personnel had the lowest score of 3.52. This finding indicates that the e-government services implementation would improve radically if the government appoints more qualified personnel to run the Huduma centres.

### 5.3 Conclusion

Knowledge drawn from this study led to the conclusion that organizational functions have a positive and statistically substantial influence delivery of e-government implementation by the Huduma Centre Facility. The strongest area that the centre has is in terms of staff retraining and development. Actions that support the citizenry's understanding of the new procedures of e-government implementation are likely to be highly effective in the implementation of e-government services.

Findings also led to the conclusion that Access to ICT and infrastructure had a statistically significant influence on e-government implementation in the Huduma Centre Nakuru. The strongest area the centre had in terms of access to ICT and implementation is the customer's access and usage of New Generation Mobile Services. The area that requires improvement in terms of access to ICT is uncertainty avoidance.

Regarding ICT infrastructure and e-government, the findings led to the conclusion that ICT infrastructure does have a statistically significant influence on the implementation of e-government services in Kenya. The study further indicated that the system was able in terms of system functionality. The study concludes that if the cost of ICT software was reduced, the effectiveness of e-government implementation in the Huduma Centre would be achieved.

In regards to organization functions, the study concludes that there is a positive and statistical influence on e-government implementation in the Nakuru town Huduma Centre. The study concludes that support by high-level management has had an influence that is positive on the implementation of e-government services while the centre needs more qualified personnel to run effectively.

## 5.4 Study's Recommendations

### 5.4.1 Organization culture

Regarding organizational culture, the descriptive studies indicated that it had the second-highest mean of 3.66. The aggregate mean suggests that there is a significantly good organizational culture that supports the e-government implementation in Nakuru town huduma centre. Staff retraining and redevelopment citizen understanding of the e-government services when well implemented can have the desired effect on e-government implementation by the Huduma Kenya initiative.

To improve on the implementation of e-government, the Huduma Centre should improve on citizens understanding of the new procedures. Another item that received a low score was the periodical or regular training of the employees. To improve on e-government implementation, the centre should educate its employees on operating different procedures of the e-government services. Special keenness has to be given to the users knowledge of the internet and their familiarization with it.

### 5.4.2 Access to ICT and implementation

About access to ICT and implementation, the item assessing uncertainty avoidance in whether the members of the society felt uncomfortable about using ICT had the lowest score. The findings suggest that customers and internet users may be reluctant about obtaining government services online. To improve the implementation of e-government services, the government should focus on encouraging citizens to use e-government services. Citizens should also be enlightened on the advantages of e-government programmes. More effort should be focused on ensuring that citizens are not reluctant to use e-government services on their own.

### 5.4.3 ICT Infrastructure and e-governance

In regards to ICT infrastructure, the greatest attention should be paid to the cost and functionality of the ICT infrastructure. This recommendation is because the item representing the cost of ICT hardware had the least score. To improve the implementation of e-government services, the costs of ICT infrastructure should be subsidised by the government, while the centre should continually upgrade its ICT infrastructure. There is also a need for the government to improve on centralized and decentralized information sharing. Another major concern that the government and the centre should look into is the security concerns on the networks used.

### 5.4.4 Organizational functions

On the organizational functions, the centre should work towards having top managers who are ready to commit more resources to the e-government implementation. Further, the Huduma Kenya should work towards deploying adequate and qualified personnel to improve the range and quality of e-government provided at the Huduma Centre. The item had the lowest score suggesting that respondents felt that there were insufficient personnel for the implementation of e-government services. The study also recommends that top managers within the centre should conduct regular reviews of the system of e-government to support e-governance.

Another area that the government should emphasize is the resistance to change and electronic ways by introducing platforms to educate users on the importance of e-government services.

Overall, the study established that ICT infrastructure and governance had the highest influence on e-government implementation. Therefore, for the Huduma Centre to effectively implement e-government services it should strengthen the ICT infrastructure available. The particular areas that should be focused on include lowering and subsidizing the costs of ICT hardware to ensure that there is adequate hardware to cater for e-government services and that mobile devices are affordable for e-government services users.

In addition, this research came to the conclusion access to ICT and implementation was the most deficient factor according to the overalls given by the respondents. The finding highlights a need for the government to improve society's perception and use of ICT infrastructure to access e-government services. Particularly, the Huduma Kenya initiative should focus on public awareness of the benefits of accessing government services online to reduce uncertainty avoidance.

### 5.5 Suggestions for Continued Studies

The current study examined the determinants of implementing e-government service in a case study of Nakuru town Huduma Centre. The main determinants that were examined include organizational culture, access to ICT, ICT infrastructure and organizational functions. The four determinants were comprehensive in explaining the performance of the Huduma Centre in terms of e-government implementation. Future studies can explain other determinants of e-government implementation.

The current study postulates that access to ICT and implementation has the least significance in implementing e-government services. The finding is not in conformity with other studies that suggest access to ICT has a significant determination on the delivery of e-government services. The inconsistency calls for further studies. Additionally, future studies should consider using a qualitative in-depth method to explore the reason for the inconsistency.

## REFERENCES


Abasilim and Edet (2015). E-Governance and its implementation challenges in the Nigerian public service. *Acta Universitatis Danubius Vol. 7, no. 1, 30 – 42*

Abdullah, N. Mansor, N. & Hamzah, A. (2013). Keeping ahead of the game: Innovations and challenges in e-government in Malaysia. *The Economic and Labour Relations Review 24(4)* 549–567.

Adeyemo, A. B. (2011). E-Government Implementation In Nigeria: An Assessment of Nigeria's E-Government Ranking. *Journal of Internet and Information System. 2 (1),* pp. 11-19.

Al-Bulushi, Y. (2017). *The Effects of Leadership Roles on e-Government Performance in Oman.* University of Phoenix

Almarabeh, Tamara and AbuAli, Amer (2010). A General Framework for E-Government: Definition Maturity Challenges, Opportunities, and Success. *European Journal of Scientific Research, vol. 39(1),* pp. 29-42.

Al-Naimat, A. M. Abdullah, M. & Ahmad M. (2013). The critical success factors for e-government implementation in Jordan. *Proceedings of the 4 the International Conference on Computing and Informatics, ICOCI 2013 28-30 August 2013* Sarawak, Malaysia. Universiti Utara Malaysia

Alshehri, M. and Drew, S. (2010). *Challenges of e-Government Services Adoption in Saudi Arabia from an e-Ready Citizen Perspective*. World Academy of Science, Engineering and Technology 66

Ayo, C. K. (2009). *Information Systems and Technologies.* Lagos: Mckay Educational Series.

Ayo, C. K. (2014). *Information and Communication Technology as a Lever for Innovation in Leadership.* In T. Abioye., C. Awonuga and A. Amuwo. Leadership and Innovation in Africa's Development Paradigm. Ota: Covenant University Press.

Basamh, S., Qudaih, H. and Suhaimi, M. (2014) E-Government Implementation in the Kingdom of Saudi Arabia: An Exploratory Study on Current Practices, Obstacles & Challenges. *International Journal of Humanities and Social Science, 4, 296-300.*

Bertot, J. C., Jaeger, P. T., & Grimes, J. M. (2010). Using ICTs to create a culture of transparency: E-government and social media as openness and anti-corruption tools for societies. *Government information quarterly*, *27*(3), 264-271.

Bwalya, K. (2009). Factors Affecting Adoption of E-Government in Zambia. *The Electronic Journal of Information Systems in Developing Countries, 38, 1-13.*

Fitsilis, P. Anthopoulos, L. & Gerogiannis, V. (2010). *An Evaluation Framework for E-Government Projects, Chapter of the Book "Citizens and E-Government: Evaluating Policy and Management".* In C. Reddick (Ed.), IGI Global (http://www.igi-global.Com/chapter/evaluation-framework-governmentprojects/42551, isbn: 9/8-1-61520-931-6)

Groves, K. S. & LaRocca, M. A. (2011). An empirical study of leader ethical values, transformational and transactional leadership, and follower attitudes toward corporate social responsibility. *Journal of Business Ethics, 103,* 511-528.

Kapurubandara, M. & Lawson, R. (2009). Availability of E-commerce Support for SMEs in Developing Countries. *The Electronic Journal on Information Systems in Developing Countries,* 1(1), 1-24.

Karunasena, K., & Deng, H. (2012). Critical factors for evaluating the public value of e-government in Sri Lanka. *Government Information Quarterly, 29(1),* 76-84

Kombo, D.K and Tromp, D .L.A (2006). Proposal and Thesis Writing. *An introduction.* Don Bosco printing press. Makuyu. Kenya

Kothari. C.R (2004). Research Methodology: *Methods and Techniques.* New Age International (P) limited publishers. New Delhi. India

Mutula M. S. (2008). Comparison of sub-Saharan Africa's e-government status with developed and transitional nations. *Information Management & Computer Security, Vol 16, no. 3,* pp. 235-250

Njenga, E. (2014). Factors affecting The Implementation of e-Government Policies in Nakuru County, Kenya. The University of Nairobi.

Nkohkwo, Q. and Islam, M. (2013). Challenges to the successful implementation of e-government initiatives in Sub-Saharan Africa: A Literature Review. *Electronic Journal of e-Government Volume 11 Issue 2,* pp 253-253

Ochara, N. M. (2010). Assessing irreversibility of an E-Government project in Kenya: Implication for governance. *Government Information Quarterly*, *27*(1), 89-97.

Ojo, J. S. (2014). E-Governance: An Imperative for Sustainable Grassroots Development in Nigeria. *Journal of Public Administration and Policy Research, vol. 6 (2),* pp. 77-89.

Omeire, E. & Omeire, C. (2014). New wine in old wine skin: an exploration of major constraints to e-government implementation in Nigeria. *European Scientific Journal May 2014 edition vol.10*, No.14

Ondego, B. and Moturi, C. (2016). Evaluation of the Implementation of the e-Citizen in Kenya. International Journal of Applied Information Systems (IJAI), Volume 10-No.4, 13 – 21.

Osborne, S. P., Radnor, Z., & Nasi, G. (2013). A new theory for public service management? Toward a (public) service-dominant approach. *The American Review of Public Administration*, *43*(2), 135-158.

Otieno, I., & Omwenga, E. (2015, May). Citizen-centric critical success factors for the implementation of e-government: A case study of Kenya Huduma Centres. In *2015 IST-Africa Conference* (pp. 1-9). IEEE.

Park, R. (2008), Measuring Factors That Influence the Success of E-government Initiatives. *Proceedings of the 41st Hawaii International Conference on System Sciences* – 2008.

Rabaiah, A. & Vandijct, E. (2011). *A Strategic Framework of e-Government: Generic and best Practice";* In Les Worrall (ed) Leading Issues in e-Government Research, Academic Publishing International Ltd. pp. 1-32.

Rust, R., & Lemon, J. (2009). E-Service and the consumer. *International Journal of Electronic Commerce, 5(3), 83–99.*

Rutto & Yuda, 2017). Huduma Centres Revolutionizing Service Provision in Kenya: Lessons for the Information Profession. *International Journal of Science and Research (IJSR), 6 (6),* 1133 - 1137.

Sharma, R., & Kanungo, P. (2011, September). An intelligent cloud computing architecture supporting e-Governance. In *The 17th International Conference on Automation and Computing* (pp. 1-5). IEEE.

Tripathi, A., & Parihar, B. (2011, June). E-governance challenges and cloud benefits. In *2011 IEEE International Conference on Computer Science and Automation Engineering* (Vol. 1, pp. 351-354). IEEE.

United Nations (UN) (2012). *United Nations Global e-Government Survey.* New York: UN.

Yukl, G. (2010). *Leadership in Organizations* (7th ed.). Upper Saddle River, NJ: Prentice Hall.

Ziemba, E. Papaj, T. and Żelazny, R. (2013). A Model of Success Factors for E-Government Adoption –The Case of Poland. *Issues in Information Systems, Volume 6 (4).*

Nakuru County:Location, administrative units and population

*https://nakuru.go.ke/nakuru-county/*

## APPENDICES

### Appendix I: The Letter to the I/C Huduma Centre

**Dear Sir / Madam,**

**RE: SEEKING FOR PERMISSION TO COLLECT ACADEMIC RESEARCH DATA FROM NAKURU TOWN, HUDUMA CENTRE.**

The above matter referred, currently I am engaging in studies at Kenyatta University undertaking a Masters of Public Policy and Administration (MPPA) degree.

I am seeking permission from your esteemed office to conduct academic research from members of staff at the Nakuru town, Huduma Centre.

All assistance accorded by your office will go a long way in aiding the completion of my academic degree and will be highly appreciated.

Thank you.

Yours Faithfully

Patrick Waweru Ngugi

## Appendix II: Introduction letter

Dear Sir / Madam,

This is part of my research for a degree in Masters of Public Policy and Administration (MPPA) at Kenyatta University. I am kindly seeking your input by completing a questionnaire for my research thesis. I appreciate your sacrifice in setting time aside from your busy schedule to provide your contribution in form of responses.

The thesis methodology is a case study of determinants of the implementation of e-government in Kenya through the Huduma Kenya programme, specifically the Huduma centres initiative. The information from the questionnaire will be analyzed and some of the key emerging themes will be explored further through interviews. I trust that this finding will also prove to be useful by highlighting diverse input in various areas of your engagement in the leadership of your department/ the Nakuru town, Huduma Centre.

The responses from these questionnaires will be treated anonymously and the identity of the respondent will not be asked, therefore no response can be pinned to an individual respondent throughout this thesis. The data collected will be stored in soft copy (electronically), for five (5) years after the completion of the degree programme, then discarded by way of deletion. The research findings may be used in presentations and publications as part of the dissemination of the research. In case you require any further clarification or explanation, please do not hesitate to ask.

Once again, my sincere gratitude for participating in this research.

Yours Sincerely,

Patrick Waweru Ngugi

## Appendix III: Research Questionnaire for Huduma Centre Staff

**Section A: General Information**

1. Gender

   Male [ ] Female [ ]

2. Please tick your age range?

   21- 30 yrs. [ ] 51-60 yrs. [ ]

   31- 40 yrs. [ ] Over 60 yrs. [ ]

   41- 50yrs [ ]

3. What is the period you have held your current position?

   1 - 5yrs [ ]

   6 - 10yrs [ ]

   11- 15yrs [ ]

   15- 20yrs [ ]

   Over 20yrs [ ]

4. Please tick your highest attained level of academic qualification

   Diploma [ ]

   Degree [ ]

   Masters [ ]

   PhD [ ]

   Any Other (s), (please specify) _____

5. Please describe your level of satisfaction with your current position?

   Very High [ ]

   High [ ]

   Moderate [ ]

   Low [ ]

   Very Low [ ]

**Part B: Organizational functions**

6. The following organizational structure aspects influence the speed of implementing e-government services at Nakuru town Huduma Centre. Please indicate your; level of concurrence, using the following scale.

Highly Agree 5 Disagree 2

Agree 4 Disagree Strongly 1

Averagely Agree 3

| | **1** | **2** | **3** | **4** | **5** |
|---|---|---|---|---|---|
| Senior management support | | | | | |
| Resistance to change to electronic ways | | | | | |
| Level of coordination | | | | | |
| Collaboration among the staff | | | | | |
| Lack of qualified personnel and training | | | | | |
| Directing function by the management | | | | | |

**Part C: Access to ICT and the Implementation of E-Government**

7. The following aspect of Access to ICT determine the implementation of e-government at Nakuru town, Huduma Centre. Please indicate to what extent you agree, using the following scale.

Highly Agree 5 Disagree 2

Agree 4 Strongly Disagree 1

Averagely Agree 3

| | **1** | **2** | **3** | **4** | **5** |
|---|---|---|---|---|---|
| Access to Next Generation Mobile Services (NGMS), generally known as 3G and 4G LTE services | | | | | |
| Proficiency in the use of Information and Communication Technology. | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| Accessibility to internet and web services | | | | | |
| Reliability of the internet services (Connectedness) | | | | | |
| Ease of accessing ICT knowledge and ability to operate specific technologies | | | | | |
| Accessibility of electricity power (Acceptance of unequal distribution of power) | | | | | |
| Uncertainty avoidance (members of society feeling uncomfortable about the use of ICT) | | | | | |

**Part D: ICT infrastructure and E-governance**

8. The following ICT infrastructural aspects influence the rate implementation (acceptability) of e-government at Huduma Centre, Nakuru. Please indicate to what extent you agree, using the following scale.

| | | | |
|---|---|---|---|
| Highly Agree | 5 | Disagree | 2 |
| Agree | 4 | Strongly Disagree | 1 |
| Averagely Agree | 3 | | |

| | **1** | **2** | **3** | **4** | **5** |
|---|---|---|---|---|---|
| Concern on IT Security (technology security and privacy measures) | | | | | |
| Network security concerns (confidentiality of the user) | | | | | |
| Collaboration and information shared across various government agencies | | | | | |
| Balance of information between centralized and decentralized government units. | | | | | |
| Cost of ICT hardware | | | | | |
| Data possession | | | | | |
| Availability of relevant ICT infrastructure | | | | | |
| Power supply | | | | | |
| System functionality | | | | | |

**Part E: Organizational Culture aspect**

9. The following Organizational Culture aspects influence the implementation of e-government service at Huduma Centre, Nakuru. Please indicate to what extent you agree with each statement, using the following scale.

5= Highly Agree,

4= Agree,

3= Averagely Agree,

2= Disagree,

1= Strongly Disagree

| | **1** | **2** | **3** | **4** | **5** |
|---|---|---|---|---|---|
| Citizen Understands of the benefits of the new procedures | | | | | |
| Periodical / regular training and education | | | | | |
| Citizens' skills on the usage of existing E-government services | | | | | |
| Technical skills and competencies of drivers of E-government | | | | | |
| User's Internet knowledge and computer usage | | | | | |
| Staff retraining and skill developments | | | | | |

**Part F: E-government Implementation**

10. The following statements relate to the implementation of e-government services at Huduma Centre, Nakuru. Please indicate to what extent you agree with each, using the following scale.

5= Highly Agree,

4= Agree,

3= Averagely Agree,

2= Disagree,

1= Strongly Disagree

| **Statement** | **1** | **2** | **3** | **4** | **5** |
|---|---|---|---|---|---|
| Most government services are offered through electronic means. | | | | | |
| A large percentage of our services are on a self-service basis using electronic platforms such as the internet and SMS. | | | | | |
| The number of customers seeking services in our service hall has decreased after the introduction of e-services. | | | | | |
| Most of the organizational functions such as finance and human resource management have been digitized. | | | | | |

## Appendix IV: Customers Research Questionnaire

I am kindly seeking your opinion on the statements given below. I extend my advance assurance that the responses given will be used solely for academic purposes and kept completely confidential.

Your taking part in this study will be highly appreciated.

**Section 1: Background Information**

1. Your Gender (please select by way of ticking)

   Female [ ]

   Male [ ]

2. Kindly tick your age bracket

   18 – 27 years [ ]

   28- 37 years [ ]

   48 – 57 years [ ]

   Above 57 years [ ]

3. How often do you visit Huduma Centre?

   First time [ ]

   Regularly [ ]

   Rarely [ ]

4. What service do you seek from Huduma Centre?

   …….

5. ICT includes different kinds of communication devices or applications. Please indicate which one (s) is easily accessible to you by ticking against it.

| **Communication devices or applications** | **Tick Appropriately** |
|---|---|
| Smart Phones | |
| Computer / Laptop | |
| Tablets/iPad | |
| Satellite phones | |
| Other (please state) | |

6. The following are some of the issues that make it difficult for you to use services recommended or advised by Huduma Centre Ltd. Please indicate to what extent the issues affect utilization of the services. Use the sale provided.

   Highly Agree 5

   Agree 4

   Moderately Agree 3

   Disagree 2

   Disagree Strongly 1

| | **1** | **2** | **3** | **4** | **5** |
|---|---|---|---|---|---|
| Lack of transparency and accountability | | | | | |
| Low internet penetration, | | | | | |
| Lack of awareness about e-government services | | | | | |
| Limited knowledge of information technology | | | | | |
| Cultural barriers | | | | | |
| Lack of clear direction on how to access certain services. | | | | | |
| Cost of internet | | | | | |
| Lack of computer literate staff | | | | | |
| Low-quality services | | | | | |

7. Please rate your level of satisfaction with the services offered at this Huduma Centre?

   Very High [ ]

   High [ ]

   Moderate [ ]

   Low [ ]

   Very Low [ ]

## Appendix V: Interview Schedule

1. What departments have been housed by Huduma Centre, Nakuru?
2. What is the range of services are offered at the Huduma Centre?
3. How would you describe the performance of Nakuru town, Huduma Centre?
4. How do the following factors affect the implementation of e-government at this centre?
   a) Organizational functions
   b) Client processing
   c) ICT infrastructure
   d) Organizational culture

5. What measures/strategies have been employed by the management to address the above issues in question 4

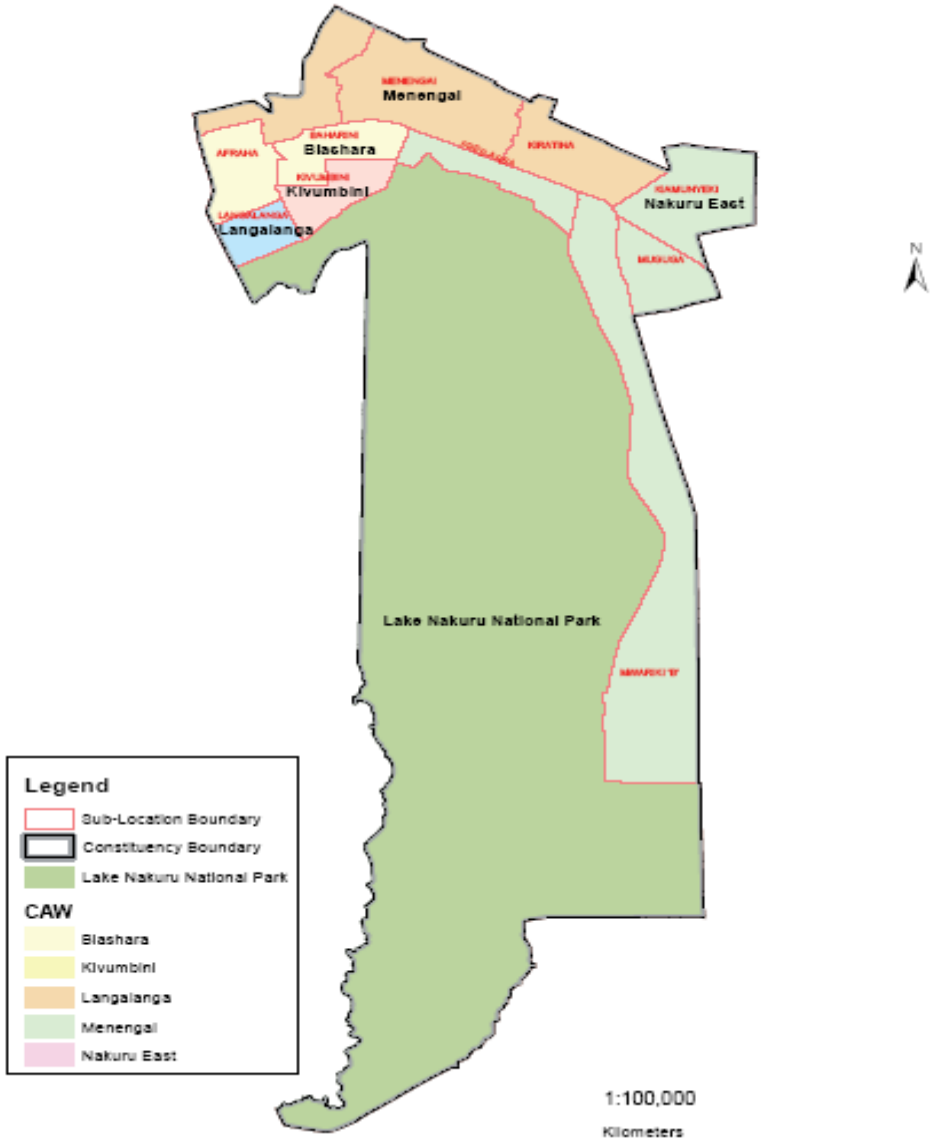
## Appendix VI: Work Plan

| | | Months | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Phase** | **Activity** | **1**st | **2**nd | **3**rd | **4**th | **5**th | **6**th | **7**th | **8**th | **9**th | **10**th | **11**th | **12**th | **Coordinator** |
| **1** | Literature review | | | | | | | | | | | | | Researcher |
| **2** | Writing the Proposal | | | | | | | | | | | | | Researcher |
| **3** | Development of Instruments for the Research | | | | | | | | | | | | | School Supervisor |
| **4** | Departmental Proposal Defense | | | | | | | | | | | | | School supervisor |
| **5** | Post Defense correction. | | | | | | | | | | | | | Researcher |
| **6** | Piloting | | | | | | | | | | | | | |
| **7** | Collection of Data | | | | | | | | | | | | | Researcher |
| **8** | Analysis of Data | | | | | | | | | | | | | Researcher |
| **9** | Writing the Thesis | | | | | | | | | | | | | Researcher |
| **10** | Presentation to the supervisor | | | | | | | | | | | | | Researcher |
| **11** | Thesis defence at the school level | | | | | | | | | | | | | Student and Supervisor |

## Appendix VII: Cost for the Research

| **Activity** | **Particulars** | **Volume** | **Cost (in shillings)** |
|---|---|---|---|
| Development of the proposal | Internet bundles | | 4,000 |
| | Printing | 7 Copies @ 500 | 3,500 |
| | Binding | 7 Copies @ 150 | 1,050 |
| | Printing of Research instruments | 10 pages @ 300 | 3,000 |
| Field Work (Collection of Data) | Stationery | Varied | 5,000 |
| | Travelling | Bus fare | 5,000 |
| | NACOSTI permit | 1 | 2,000 |
| | Stationery | Varied | 2,000 |
| | Telephone communication | Calls and SMSs | 3,000 |
| | Cost of Printing | Varied | 10,000 |
| Research Report preparation | Typesetting services | Examination Drafts 600 Pages | 10,000 |
| | Preparation | 15 | 7,500 |
| Additional expenses | Making copying | | 2,500 |
| | Computer usage cost | | 2,500 |
| | Final report production. | 7 books | 15,000 |
| Defence | Hire of the projector | 5 | 5,000 |
| **The accrued amount for the project.** | | | **81,050/=** |
| **Contingency (10%)** | | | **8,105/=** |

## Appendix VIII: Map of Nakuru Town




Courtesy of google map