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A Study on Implementation of E-Government for Public Service Performance in Kenya:
Framework of Opportunities and Challenges

2019년 2월

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이 논문을 정치학 석사학위논문으로 제출함
2019 년 02 월

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시몬의 석사학위논문을 인준함
2019 년 02 월

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Abstract:

E-Government (electronic government) involves the use of Information and Communication Technology (ICT) in order to enhance the functions and service delivery of the government to the citizens, employees, businesses and various other stakeholders. Adoption and implementation of e-government by the state gives the citizens an opportunity to be involved in the decision-making process, get access to government functions in a swift manner and thus enhancing transparency, effectiveness, openness, inclusivity and revenue facilitation among others. The use of E-Government application services has tremendously risen in developing countries over the last two decades. Kenyan government being part of the developing nations has also made strides by enhancing the use of Information and Communication Technology (ICT) platforms across all the government related services delivery ends such as administration, socio-political and economic institutions among others within the public sector.

Before the nineties, the governments from across the world just like the business entities used the e-services to run the backroom operations.
Little interest was placed on the customer-oriented operations such as delivery of services or a means of distributing information to the citizens. However, with the wake of nineties, there was a shift from basic e-functions in the backroom to a more citizen-oriented services. The shift to internet related services and administrative framework was due to its efficiency and an enabling environment favoring openness, transparency and accountability. The establishment and initial foundations of e-government services has been taking stage in Kenya. However, some sectors have been faced with various challenges during the process of implementation. On the same ground, very few studies have been able to critically analyze the challenges and opportunities, correlation among the electronic-government implementation and performances in the public sector of the republic of Kenya.

The use of Information Technology systems in the operations of the government is seen as a tool to spur the growth and development and as a result of that, it determines the competitive edge of a country. South Korea for example, which is the benchmark country for this study attributes her success to sophisticated e-government applications. Reports from the UN e-Government development index has placed the Republic of South Korea in the lead for a record time of 3 consecutive years from 2010, 2012 and 2014.

This study focused on a general objective to analyze the opportunities and the challenges of e-Government implementation as well as the performance in the public sector within the context of developing countries and particularly the units of administration in the Kenyan government as the object of observation. Key tenets and best practices were adopted from the south Korean e-government system. This study further narrowed down
to establish the relationship between the infrastructure of Information and communication technology and the performances in the Kenyan government. This was mainly to ascertain whether the use of the electronic-enabled system applications have any relationship with the performances in the public service. Also, the study was to examine whether there was any relationship between the legal approaches and framework in the e-government setup and the performance by the employees in the public sector.

The foundation of this study was established using various theories that relates to governance process. First, the theory of Management Information Systems (MIS) served as the basis for this research. Other relevant theories were applied as the supplementary theories. The use of the theory of Resource Based View was relevant especially in relation to the set hypothesis. Furthermore, the adoption of the technology related theory Unified Theory of Acceptance and Use of Technology (UTAUT) was equally relevant for this study on the e-government implementation in Kenya. This study adopted an comparative case study (Yin, 2003) and using South Korea as the benchmark for best practice in e-government system. Qualitative approach in comparative case study was mainly used. However, primary data acquired through focused group interviews was also used specially to gain an insight on the objectivity of the opportunities and challenges of the e-government adoption in Kenya. The main targeted population was the Kenyan students studying in South Korea. The choice of participants was very relevant in the sense that almost all of them represented the various ministries in the country and that the e-government services are actively used in those ministries.

From the study, the conclusion made was that, the framework of
electronic-government has an impact on the service delivery and performance in the public service. Also, the study reveals that the role of government legal system has a relationship with the e-government performance in the public service of Kenya. With regards to the challenges facing the e-government system today in Kenya, the study recommends that there should be a well-regulated approach in-order to ensure its full effectiveness in all the key institutions of the government. Finally, this study recommends that there should be well diversified scale of Information and Communication Technology (ICT) knowledge within the ministry of Information and Communication Technology of Kenya so as to make good use of the trending current technology which will be adopted in the Kenyan e-government systems. Also, the management stakeholders responsible for strategizing e-government in Kenya should ensure that there is an efficient access to the information and materials by the consumers at the areas responsible for service delivery.

**Keywords:** E-government, Public Sector, E-participation, E-citizen, Service delivery

**Student Number:** 2017-20905
Table of Contents

Abstract: ................................................................................................................................. i
List of Figures .......................................................................................................................... vii
List of Table ............................................................................................................................ viii
List of Abbreviations .............................................................................................................. ix

CHAPTER 1: INTRODUCTION ......................................................................................... 1
1.1 Study Background. ............................................................................................................ 1
1.2 Model of e-government .................................................................................................... 4
  1.2.1 Stage 1: Cataloging ................................................................................................. 5
  1.2.2 Stage 2: Transaction .............................................................................................. 6
  1.2.3 Stage 3: Vertical Integration ................................................................................... 7
  1.2.4 Stage 4: Horizontal Integration .............................................................................. 9
1.3 Problem Statement .......................................................................................................... 11
1.4 Research objective. ......................................................................................................... 14
1.5 Justification and significance of the study ....................................................................... 15
1.6 Historical dimensions of e-government ......................................................................... 18
  1.6.1 An overview of e-government strategy in Kenya. ................................................ 18
  1.6.2 An overview of E-government strategy in South Korea ........................................ 22
1.7 Research Questions ......................................................................................................... 30
1.8 Assumptions and Limitations .......................................................................................... 30

CHAPTER 2: LITERATURE REVIEW .............................................................................. 31
2.1 Terminologies .................................................................................................................. 31
  2.1.1 Government ........................................................................................................... 31
  2.1.2 e-Government ...................................................................................................... 31
  2.1.3 Citizen .................................................................................................................. 32
  2.1.4 Community .......................................................................................................... 33
2.2 Theoretical Framework ................................................................................................. 35
  2.2.1 The Theory of Management Information Systems (MIS) .................................. 36
  2.2.2 The Theory of Resource Based View (RBV) ...................................................... 37
  2.2.3 Unified Theory of Acceptance and Use of Technology (UTAUT) ...................... 39
  2.2.4 Actor Network Theory (ANT) ............................................................................. 40

CHAPTER 3: METHODOLOGY ...................................................................................... 42
3.1 Research Philosophy ....................................................................................................... 42
3.2 Research Design ............................................................................................................. 42
3.3 Case study ...................................................................................................................... 44
3.4 E-government in South Korea (From Back-office Operation to Internet enabled administrative framework) .............................................................. 44
  3.4.1 Preparation Stage ................................................................................................. 46
  3.4.2 Diffusion Stage .................................................................................................... 47
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.4.3 Maturation Stage</td>
<td>48</td>
</tr>
<tr>
<td>3.5 Research Method – Qualitative</td>
<td>49</td>
</tr>
<tr>
<td>3.6 Study Population and Sample</td>
<td>50</td>
</tr>
<tr>
<td>3.6.1 Sampling</td>
<td>50</td>
</tr>
<tr>
<td>3.7 Measures</td>
<td>50</td>
</tr>
<tr>
<td>3.8 Strategy of Inquiry – Skype Group Interview</td>
<td>51</td>
</tr>
<tr>
<td>3.8.1 Group interviews</td>
<td>52</td>
</tr>
<tr>
<td>3.9 Data Analysis (Interpretivism)</td>
<td>52</td>
</tr>
<tr>
<td>3.10 Ethical Considerations</td>
<td>53</td>
</tr>
<tr>
<td>CHAPTER 4: FINDINGS AND DISCUSSION</td>
<td>55</td>
</tr>
<tr>
<td>4.1 Infrastructural challenges</td>
<td>59</td>
</tr>
<tr>
<td>4.2 Administrative challenges</td>
<td>59</td>
</tr>
<tr>
<td>4.3 Financial Barriers</td>
<td>60</td>
</tr>
<tr>
<td>4.4 Legislative Barriers</td>
<td>61</td>
</tr>
<tr>
<td>4.5 Social Challenges</td>
<td>62</td>
</tr>
<tr>
<td>4.6 E-government opportunities</td>
<td>64</td>
</tr>
<tr>
<td>CHAPTER 5: CONCLUSION</td>
<td>66</td>
</tr>
<tr>
<td>5.1 Limitations</td>
<td>68</td>
</tr>
<tr>
<td>5.2 Future Research</td>
<td>69</td>
</tr>
<tr>
<td>Bibliography</td>
<td>71</td>
</tr>
<tr>
<td>Appendix 1</td>
<td>77</td>
</tr>
<tr>
<td>Request for Permission to Interview</td>
<td>77</td>
</tr>
<tr>
<td>Appendix 2</td>
<td>79</td>
</tr>
<tr>
<td>Interview Questions</td>
<td>79</td>
</tr>
<tr>
<td>Abstract (Korean)</td>
<td>81</td>
</tr>
</tbody>
</table>
List of Figures

Figure 1: Dimensions and stages of e-government development .......... 5
Figure 2: Penetration and subscription rate of mobile use in Kenya ... 16
Figure 3: Kenyan counties under the new constitution: ..................... 19
Figure 4: Focal domain of government initiative: ............................ 33
Figure 5: Process of MIS implementation .................................... 37
Figure 6: The Resource-Based View ............................................ 39
Figure 7: The role of e-government .............................................. 65
List of Table

Table 1: Stages of e-government development in South Korea ........46
Table 2: Kenya's e-government data from 2010-2018 ....................63
**List of Abbreviations**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACN</td>
<td>Administrative Computer Network</td>
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<td>ANT</td>
<td>Actor network Theory</td>
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<td>BPS</td>
<td>Business Process System</td>
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<td>CDC</td>
<td>Change Data Capture</td>
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<tr>
<td>DBRAIN</td>
<td>Digital Budget and Accounting System</td>
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<tr>
<td>EDPS</td>
<td>Electronic Data Processing System</td>
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<tr>
<td>EGDI</td>
<td>e-Government Development Index</td>
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<td>G2C</td>
<td>Government to Citizen</td>
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<td>G2E</td>
<td>Government to Employee</td>
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<td>G2B</td>
<td>Government to Business</td>
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<td>G2G</td>
<td>Government to Government</td>
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<td>ICT</td>
<td>Information and Communication Technology</td>
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<td>NHIF</td>
<td>National Hospital Insurance Fund</td>
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<td>NSSF</td>
<td>National Social Security Fund</td>
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<td>MIS</td>
<td>Management Information Systems</td>
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<td>OTN</td>
<td>Optical Transmission Network</td>
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<td>RBV</td>
<td>Resource Based View</td>
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<tr>
<td>UTAUT</td>
<td>Unified Theory of Acceptance and Use of Technology</td>
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<td>UN</td>
<td>United Nations</td>
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</tbody>
</table>
CHAPTER 1: INTRODUCTION

1.1 Study Background.

E-government is a powerful tool for human development and essential to the achievement of the internationally agreed development goals including the Millennium Development Goals (United Nations Department of & Social Affairs, 2010). The use of e-government is the main basis for reforms and also modernization as the administrative government is facing the need to adapt to the needs of the effective service delivery and the demands in the era of information and technology (McLean et al 2003). E-government is also configuring the public in order to reconsider their expectations so as to allow for the opinion leaders and the citizens to re-think the social economic and political problems affecting them. Most of the countries across the world have come to understand the need and importance of E-Government in terms of service delivery to the citizens. E-Government, which is the short form of “electronic government” is a concept which dates back to early nineties when the world shifted to the fast use of Information and Communication Technology to enhance government processes after the first launch of World Wide Web (www). E-government is taking over across the industrialized nations and developing nations as well (Hwang, Choi, & Myeong, 1999). To most of the countries that includes South Korea and Kenya, the use of e-government is not only a paradigm shift in the administration process but is also a weapon of mass competitiveness of the government both for benefitting economic and non-
economic reasons. According to the world Bank\(^1\), E-Government is the use of Information and Communication Technology (ICT) to improve efficiency, effectiveness, transparency and accountability in governance process. Making good use of the ICT is necessary to enhance the structures and functions of government bodies (Davis 2005). With the advent of Information, Communication and Technology (ICT), people, governments and the businesses are able to easily access information and thus widening the prospects of democratization within the public sphere. This has made communication network possible and created an enhanced governance and decision-making process.

E-government is structured to making use of other fundamental aspects within the domains of the public sphere such as E-Participation, openness, perceived awareness, effectiveness in policy formulation, quality of service and transparency. Many governments worldwide in the pursuit of an enhancement of these features have been channeling much of their resources towards E-Government. However, some of those countries do not meet those stipulated goals as they anticipated and hence regarded as failed states (Gil-Garcia, 2012).

The structure and the model of E-Government is made in such a way that it takes care of four fundamental key areas which includes: Government to Government, abbreviated as G2G, Government to Business, abbreviated as G2B, Government to Citizens abbreviated as Government to Citizen G2C and finally Government to Employee G2E (Benbasat & Zmud, 2003). The above structure creates an interlinked network which

ensures that the government facilitates a concerted effort to work with all the stakeholders to the realization of its stipulated goals and objective.

The use of e-government has steadily evolved in developing nations. The shift from primary forms of government is due to its nature of a more efficient, transparent, effective and accountable service delivery. The administrative processes across the world are embracing the use of e-government from the local authorities to the national government. This explains the rapid nature and its effectiveness. In 2012, it was declared by the UN that, the focus of E-government was the provision of effective handling of the information which was of public interest and to enhance a good service delivery to the people as well as creating a serene environment to get involved in the processes of decision making.

This study is within the context of developing nations and close focus to Kenya as a representative where e-government’s growth is currently taking shape rapidly. Most nations are adopting the use of E-government to run all its processes and functions and this explains beneficial impact in terms of enhancing competitiveness, revenue collection as well as marketing the government prospects across the world in all her the public sphere. The approval of e-government initiative by the Kenyan government through the directorate of e-government in 2004 was the milestone of setting the framework of good governance and effective service delivery to the citizens. Through the Ministry of Information and communication technology, the national ICT policy was approved two years after the E-government was launched. Moments later, the government has embarked on the E-government processes that will see the transformative move in democracy, transparency and effectiveness. Also training programs for
ICT related milestones were put in place.

Despite government’s effort to invest in training programs for ICT officials and the general public on the effective use of e-government as a channel for effective service, transparency, openness and inclusivity, e-government implementation has not been an easy process. As a result, the core mandate and stated vision has not been fully implemented. A source from research surveys, literature and reports from the e-government records stated that, out of all the projects that are funded and initiated by government through e-government process in developing countries, only 15% is success whereas 35% and 50% are total and partial failures respectively. This thesis therefore, aims to critically evaluate and analyze the underlying challenges that inhibits the full implementation of e-government in these developing countries.

Furthermore, not many researches have been done to document the perennial challenges affecting the implementation of e-government process. This study therefore seeks to have an in-depth assessment onto the key challenging avenues as well as pointing out the opportunities that comes along with the protocol of e-government. The success story of South Korea which has seen it become the world leader for three consecutive years will serve as the benchmark of this study.

1.2 Model of e-government

A functional e-government is implemented in four stages (Layne & Lee, 2001) The first stage in implementation is the cataloguing process. The second stage involves the transaction process, the third and the last process involves the vertical and horizontal integration respectively as shown in the figure below.
1.2.1 Stage 1: Cataloging

The initial stage of e-government is called cataloging because the primary functions involves creating a foundation where the online presence of the government will be achieved. In this stage, the government through her Ict experts develop an administrative website. This is where most of the government information which are not actively involving are placed on the site. The main driving force for the government doing this is mainly the people from outside and also the competition from the other actors such as the non-governmental institutions as well as the private sectors. When it comes to the Government to Citizen (G2C) services, this stage has got little to offer. Also, sometimes this information is sold to the 3rd parties and hence the need for policy decisions when coming up with the site.

Figure 1: Dimensions and stages of e-government development
Source: Government information quarterly 18 (2001) 124
Given the limiting scope at this initial stage, there are several challenges that come along. Maintenance and the assignment of responsibilities is one of the challenges when it comes to this first stage of a functional e-government. Often times, during this stage, unqualified personnel is assigned the duty of site management and maintenance which becomes a hindrance to performance in terms of resourcefulness and time management due to the leakage time during try and error procedures. Also, website management systems involve a lot of answering the questions in order to meet the customer needs. This mainly in terms of answering e-mails and so on. Sometimes the questions being attended to are way beyond the ability of the personnel involved to handle and thus becoming a major hindrance to the overall performance of the department. A necessary procedure must be established in order to make sure that these challenging situations are addressed.

1.2.2 Stage 2: Transaction

The second phase involve merging the internal functions of the government to have an online presence where the members of the public and the general citizens are able to transact their businesses and affairs on an online basis. During this phase, the plans by the government involves installation of online databases to the friendly online interfaces where the citizens are able to carry out their functions effectively. These is where the interactive interface of the government website lies. The citizens are able to raise their concerns where necessary concerning the overall performances in the administration. They are also able to air out their complains in cases where their demands are not met. On the other end of operation, the government through her officials is able to respond on timely basis.
Alongside the direct communication to the authorities, citizens are able to run transactions such as payment of fines, application and renewal of the licenses, and also preliminary application of Identity cards or Passports. As the demands for these e-services increases the administration of the government is forced to develop an online platform which is directly linked to the operations of the government systems with a least human interaction.

The use of this type of technology-rich services promises an avenue for better service delivery and efficiency in the public sector. In this phase, the online administration of the government assumes a better respondence portfolio and provides a two-way communication mechanism where citizens on the other side assumes an active role. The transactions of the citizens is basically the filling out of the forms and the government on the other side respond by affirming the submission of the services as well as issuing of the receipts to the citizens. Given the nature of the information collected by the government from the citizen, an ideal security measure is set in place so as to ensure that the details of the citizens are secured at all the times. Some of that information may be politically sound and its sensitivity requires that they are treated with the utmost high security possible. Also, in the cases of confidential matters and authentication issues, the policy measures by the government ought to be put into consideration.

**1.2.3 Stage 3: Vertical Integration**

As the dynamics and the demands of the citizens changes, it pushes the government to further implement changes which are primarily acquired through the integration of the underlying procedures. This is across the levels and the functions of the government system. It is in the deep desire
of the citizens to view their government system having a one-stop shopping. This is where they are able to have an access all the information they need through a one-click process. This is a phase whose in aim is to transform the services of the government and shift from the traditional digitalization and automation of the systems which were already in order and operational. The process of e-government is not solely concerned about the lifting the already existing services to the online platforms but rather need the restructuring and reconceptualization so as to fruits of that move will be realized. When the services offered by the government become predominant, the citizens will tend to raise their hopes and needs from their government which in turn result to an overall mutual trust between the government and citizens and vice versa. Also, the services offered by the government units will be delocalized so that the responsible agencies will find it easier to monitor their operations within the required time limits. A natural tendency to set the government’s separated systems by one way or the other will then be integrated and the all work together in harmony. This way the expectation is that the vertical integration will take place first because of the reduced disparity between the different levels of the government. The facets of the governance within the same administration unit will tend to interact with each other more than with those of other departments and within the same administrative units.
1.2.4 Stage 4: Horizontal Integration

Horizontal process entails the service provision and the full functionalities of the government. The peak of the Information Technology system in the administration of the government and from the view of the citizens is manifested from this stage. During this stage, the drawbacks of the functioning units of the private and the public sector will be so evident. This is because more of the public officials will start to see the vision which is vested upon the use of e-services during the process of administration. Basically, the citizens require more than one service at once from the government end and to solve this issue, some departments of the government offer more than one service from one end of the government. For example, in Kenya, with the use of IT services, the government have embarked on creating a one-stop service centers with the brand name of Huduma Kenya. Its main aim is to change the face of the public service so that the citizens are able to acquire various services from a one-stop shop system. For example, when one is applying for National Hospital Insurance Fund (NHIF) card, National Social Security Fund (NSSF) card, application for identity cards, issuance of birth certificates, issuance of initial Identity cards and/duplicate cards among other e-services.

The various administrative units of government in the horizontal integration will always communicate to each other through a single database and

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2 One stop services centres in Kenya which was launched during the presidential term of Uhuru Kenyatta in November 2013. Huduma Kenya Programme is a Kenya Vision 2030 flagship project captured under the Mid Term plan for 2013 – 2017.
that means that all the required information across all those levels will be easily acquired. Additionally, the citizens are able to carry out their businesses effectively across an extensive range of necessary things. When reassessing in terms of the need of information, some of the administrators may feel that their departments are more important and prestigious than the rest of the institutions. Additionally, with the use of the internet and the e-services, such loopholes render the administration process and service to the citizens to be ineffective and non-friendly to the end user.

As a result of different amounts of complexities between the horizontal and the vertical processes, the later will be achieved first before the other one. The horizontal and vertical dimensional processes of e-government represent the actual scenario for the citizens through the mode in which they access the information from a central point of it. The idea of managing the government employees may be relevant at this point so that the officials will be vetted on their performances and the service delivery to the citizens. Fundamentally, horizontal integration gives the citizens an opportunity to access the government services more easily. However, it will be very vital for the citizens not to view the same integration as a way of gleaning the crucial information about a particular person. Even though with the internet hacking and other security threats is unforeseeable feature, it is very necessary that a policy framework is created so as to safeguard the data of an individual being fed to the internet so that cases of manipulation may not arise.


1.3 Problem Statement

With the advent of technology, the adoption and implementation of E-government systems have led to a wide improvement in peoples’ lifestyles from across the world. The shift in communication and administrative mechanisms to a larger extend have transformed the overall processes of government to the individuals, employees and various agencies whose functions are directly or indirectly related to the government (O. Lee & Gong, 2004). The transformation from the previous manual handling of government details that relates to citizen’s services and other relevant data to the use for electronic means to store them have steered the rapid employment and implementation of the E-government. This rapid evolvement have attracted the many governments across the world with great concern on the key positive impacts to the recipients (Sharma, 2007). According to Davison, however, governments have a tendency to slow down in their administrative processes and as such the transitioning to the scale of internet usage is not unusual that it assumes a slow rate (Davison, Wagner, & Ma, 2005). Additionally, contrary to the private and commercial bodies, the governments are usually conservative to assume the new changes. This is in the view of bureaucracy and in terms of institutional framework that has to be put in place. In practical terms, it is necessary to know whether the governments want to adopt the E-government or not. Davison also pointed out that there are some of the limitations that are associated with the E-government such as the security and privacy of the citizens, unmatched number of government employees as well as lack of will by the government to e-government.

Fundamentally, in the developing countries there is the issue of accessibility. Some of the people have the ability to access the internet while
others are not. This is considerably miserable in the society when some of the people want to access the e-government services but cannot due to such barriers. Additionally, some are not educated and are not aware of how to run the government transactions and communications online. E-government also suffers the challenges of communication limitations, similar targets and purposes among the government agencies (Lam, 2005). With the absence of a particular set of ideas, confusion among the government agencies is prone to happen and as such resulting to conflicting responsibilities. The myriad of all these complexities combined in developing countries calls for some studies to reveal the problems to the core and possibly suggest the way forward for a successful implementation of electronic government. It comes about as a result of the pursuit sufficient institutionalization framework that will yield to successful implementation, the objective assessment as well as the repeated adaptation.

The public sector in Kenya Just like other developing nations in Africa have the interest to adopt the methodology of e-government in order to widen the reach to her people so as to promote the e-participation as well as e-communication in decision making processes. A number of e-government processes have been initiated but they encounter some challenges at during the process of implementing it (Benington, 2009). From the report by the united Nations E-government 2008, the countries were categorized into 4 main limits namely: The e-government with the highest limit (index = 2 ~3.25), e-government with average limit limits (1.60 ~1.99), e-government with the lowest limit (1 ~ 1.59) and at the lower levels we have e-government lacking limit (less than 1). The republic of Kenya is considered to be having very low stake in e-government and with an index of
0.76. This is way down as compared to other African countries in classification such as Burkina Faso, South Africa and Rwanda in the. From the survey which was conducted by the United Nations, Kenya showed a hundred and twenty eighth position out of the a hundred and eighty two countries which were surveyed based on the electronic readiness index. (United Nations Division for Public & Development Management. Content, 2008).

Even though this statistical analysis shows the e-government implementation, there is a likelihood that the end-user will resort to some form of reaction because of the non-appealing aspect of the digital government processes. As the integration and the usage of these government systems increases, there is also potential for an increase in the negativity by the citizens. This could be in form of collecting information that are likely to cause mayhem, continuous monitoring as well as the misuse of the personal information. Considering that the state is the sole and the responsible custodian of the citizens’ information, the fears among these citizens becomes a reality with respect with the information they give out and with regards to the general fulfillment in the services that they get.

Going through the various research which has been advanced by the various scholars, there is a consistent element of e-government adoption. Also, there are systematized approaches under which the e-government adoption and implementation can be comprehended. Scholars have also shown a pool of statistics indicating the good and poor performances of the e-government services in the public sector (Badran, 2004). However, no related studies have taken into consideration the lead to carry out the research on the e-government implementation in the public service sector.
Even though it is common that the ultimate needs of the end-user consumers differ to a concrete amount of degree with the service providers in relation to the fundamental key areas such as the flexibility of use, privacy, legal frameworks and securities among other things, the strategies for accreditation.

1.4 Research objective.

Even though Kenya has achieved some milestones in employment of electronic-government to vent its commitment to provide services to the citizens and other stakeholders in order to enhance transparency, openness and effective service delivery, such milestones have the potential to encounter challenges thereafter. This is because, the research done on the public sector performances indicates that organizations that are tied with electronic government are not using those platforms to widen the reach of their functions but for convenience purposes.

For that reason, therefore, a harmonized relation between electronic government platform and the performances articulation calls for regulation. Furthermore, the influence of the e-government implementation in Kenya from across other stakes of public service have had some deficits due to the challenge of less research studies done on the same (Kane, 2010; Simenda, 2009). Additionally, within the framework setup of e-government in Kenya, there is no clear reach of the strategy of electronic government and the relation with the performances within the Public sector.

This research study will therefore assess the strategies of electronic government in Kenya and on how it correlates with the public service sector impact.
1.5 Justification and significance of the study

Currently in Kenya, most governmental units are working on establishing online platforms in order to facilitate and improve on the distribution of governmental electronic services to the people. For the last over two decades the world wide web in Kenya has greatly improved and currently most of the government operations are done online. Following the move to zero rate the taxes on the Information and communication technology facilities as part of the initiative to realize the Kenya vision 2030, a number of the Kenyans are now able to access the ICTs. Policies have also been made so as to ensure that the ICTs are availed to the citizens through the various projects such as installation of the ICT centers both in Primary and Secondary schools. There has been tremendous implementation of digital Kenya through the adoption of various e-government services in Kenya. For example the adoption and the use of ICT services to facilitate the online submission of taxes and custom duties through a process known as I-tax system and custom duties, Digitalized voting and submission of election results, digital application of Public service jobs, use of ICTs to track the most crucial documents such as the Passports and the Identity cards, the use of ICT systems by the Kenya National Examination Council to register, transmit results and selection of students to various schools and Universities. Registration of businesses has also been made easy through quick use of these services and there is less need of the manual services. All these services are not only limited to the use of computers but there has been a rapid growth of mobile technology which is not limited to communication alone but also access to the government services and
information. According to the report by CCK\(^3\), there is a high penetration rate of 83\% and thus many Kenyans can have an access to the online services through the use of their mobile phones due to their cheap prices and also affordable internet data charges. The report also placed Kenya at the top in the share traffic of internet through the use of mobile phones which hits over 40 million in 2017, followed closely by Nigeria which was previously leading\(^4\). The fig below shows the penetration and subscription rate of mobile use in Kenya.

Figure 2: Penetration and subscription rate of mobile use in Kenya
Source: Jumia Kenya mobile report 2018

The report also pointed out that the booming mobile use is due to the cheap and affordable prices from Asian countries particularly from China.

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\(^3\) Communication Commission of Kenya
\(^4\) Innovationtrail.org, https://www.jumia.co.ke/mobile-report/
Despite the success and rapid development of e-service use to enhance good governance frameworks, there has been challenges on the same. Due to the complex nature of e-government, research studies have shown that some of the projects fail at the implementation stage and some are left half-way. The failure of e-government is due to inability to point out the underlying challenges and tabling out the beneficial effects. E-government is the backbone of a country’s governance system. The success of all the administrative processes of the central government is interlinked to e-government framework. Considering the need to have an elaborate network of oversight mechanism and citizen-centric approach, the challenges facing the initiative forms the crucial part of the whole process. This is because it offers a guiding platform on what ought to be taken into consideration by the policy actors in government versus the actual actions.

This study will not only offer a foresight on the need to have a bottom-up approach in governance mechanism but also offers a laying field for policy makers to keep in mind the challenges and opportunities of e-government. The purpose of this thesis is to present the endemic challenges and opportunities of e-government implementation in developing countries using Kenya as a case study subject. It also draws reference to Governance and service delivery. The use of ICT to enhance government processes in a more sophisticated manner has not been so sufficient in most of the developing nation. The relatively low skilled levels and other consideration saw the need to look into to access the challenges and opportunities of e-government implementation in those countries.
1.6 Historical dimensions of e-government

1.6.1 An overview of e-government strategy in Kenya.

Africa is a continent with great potential. Unfortunately, inefficiency and corruption in the public sector remains as prominent obstacle to growth, both in Political, Economic and Democratic dimensions. There are over a hundred thousand files to be processed and they are being handled in a manual way. Most of these crucial documents in the process of handling are faced with compromising challenges by those who are handling them. It takes weeks, months and/or sometimes one does not get the document they want to have it processed because when it is misplaced, it becomes very hard to get it. The bureaucracy of dealing with the citizens also plays part in inefficiencies as some of the people have to spend long times in the queues for them to get served at the appropriate times. This poses a great challenge to the administration and the overall management of the public offices. In case of fire or any other calamities such as breakage of the water pipes, important documents might get lost forever and hence poses a great administrative issue to the government and the authorities concerned in those departments. When they are computerized within the digital means, they are all intact and chances of getting lost are highly minimized.

The road transport department for instance in Kenya handles a sizeable number of Kenya revenue authority customers and the priority is on customer services. To achieve this, they had to automate their processes so as to have an efficient way of dealing with the customers. It used to take a long time like weeks or months but after the automation it could now takes a day maximumly. Also, decentralization of services to the administrative
units in the 47 counties of Kenya shown in fig 1 below has led to a quite improved service to the citizens. This reduced the human interaction and as such this reduced the cases of corruption that are prevalent in the procurement department.

Figure 3: Kenyan counties under the new constitution: Source: infohub.co.ke
E-government in Kenya was established in 2004 following the executive proceedings in the parliament. This was after the National Rainbow Coalition government took over power from the then incumbent Kenya Africa National Union government, who had been in power for 24 years. The newly formed body was mandated with the duty to formulate a plan of action for Information and Communication Technology implementation for all government related processes.\(^5\) Just like many other developing countries, Kenya embraced the use of e-government applications to facilitate a fast flow of information and service delivery to its citizens and other stakeholders within the various units in the country.

The survey done on e-government by the UN in 2014\(^6\) placed Kenya Position 119 out of the total 193 countries in e-government development index (eGDI) and also Position 33 out of 193 in terms of e-participation index. During the same period of time, Kenya was ranked Position 9 among the African countries. Tunisia took the lead in Africa and with a global ranking of position 75 out of 193. e-government development index is arrived at by measuring the mean of the 3 control ratings which are in the 3 high proportions of e-government. Kenya is in the phase of implementing other platforms that can be used and accessed through the mobile technologies and this include the ecitizen and the huduma centres. The Kenyans are able to access the services and the information they need it so swiftly.

The use of mobile communication saw a penetration of over 70%
reach to the people who could not get access to the traditional networks of communication. In some regions the incorporation of social media handles such as twitter saw an effective governance mechanism and mobility in regional security within some parts of the country. This saw the need for community policing and as such gave rise to other likely development dimensions in the same area.

The agitation for a more dynamic country which is more democratic and citizen centered have since saw the rise of e-participation and Public opinion. Citizens are now able to air their grievances through the mainstream communication channels as well as the social media channels. All this together have put the country in an endless need for a just and equitable society. The government, however, despite its ability to handle all the complains, desires and the needs of the citizens they have not been fully able to implement the strong mechanisms that ensures that the voices of the citizens are addressed. This is partly because of the absence of an elaborate framework and mechanism of addressing the challenging social infrastructure and other domains within e-government system.

Even with the early establishment, the ICT authority in Kenya continues to face some challenges with regards to implementation such as ICT infrastructure, poor project management and design (wamoto, 2015). These challenges coupled with the e-government leadership and low management of results as well as limited IT capacity and the commitment by the employees determine the perceptions of the performance in e-government (Soonhee, 2010). Clarity of the avenues where these pressing issues emanates from is likely to pave way for cautionary measures to be taken and as such come up with successful designs of e-government in Kenya.
Currently, there is an ongoing emphasis on the attainment of Kenya Vision 2030 by the Kenyan government. This is in order to raise the worldwide competitive value and as well as taking the lead in the region through the achievement of the National Development goals (NDGs) which is stipulated by the Kenyan Information authority \(^7\). Among mega-projects relating to e-government which the government of Kenya has put in place includes the establishment of Huduma centers from across the counties in the country\(^8\) and the centralization of data by central Government authorities which is responsible for keeping the government information safe and that which can be retrieved from time to time\(^9\).

### 1.6.2 An overview of E-government strategy in South Korea

#### 1.6.2.1 History and Best practices

In the year 1967, South Korea registered a fundamental milestone in the e-government platforms\(^\text{(Cho, 2017)}\). It was during then that the use of a computer for processing data was introduced. Before that period, the government officials and all other responsible personnel in the various fields used to write down on a piece of paper all the crucial information that was necessary for the smooth running of the public institution. This not to mention the use of several carbon papers to make copies. Almost 50 years later, this form of documentation has been lost and has been over-

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\(^7\) Information and Communication technology authority in Kenya www.ict.go.ke

\(^8\) Huduma centre is a Swahili word for Service centre which is strategically located to ensure that all the services of the government to the citizens are put in one place. Citizens do not have to move from one ministry to another in search for services: www.hudumakenya.go.ke

\(^9\) mict http://www.ict.go.ke/data-centers-to-be-centralised/
taken by the introduction of the digital techniques such as the use of computers and internets. Today, the implementation of national policies across all the sectors of economy and within the public institutions highly rely on the computer-based applications. Later in 1969, the government of south Korea embraced the use of Change Data Capture computers (CDC) 3300 which were considerably large and were capable of handling a diverse information data sets which was then supplied all throughout Korea. The use of these heavy scale machines enhanced the installation of the Electronic Data Processing System (EDPS) which was responsible for such functions such as the planning of the governmental budgets and distribution, financial management for all the export related affairs, administration of the custom duties and so on (B. K. Kim, 2017).

The sole purpose of e-government is to enhance managerial efficiency in every sector of government activity. South Korea is among those countries who have capitalized on the good use of e-government strategy in order to enhance its functionality.

Since the 1990’s, South Korea has introduced diversity government services which allows the citizens to currently enjoys one of the world’s best e-government systems. This has enhanced transparency and transparency of public administration, allowing the citizens to enjoy convenience and the high-quality services and also improving the national competitiveness. Studies shows that currently Korean government provides some 19,246 varied services to its citizens (Choudrie & Papazafeiropoulou, 2006). The introduction of the e-government services in Korea has seen a lot of effects rising from social, economic to political dimensions (Cho, 2017). To improve on the improved efficiency of the Public Administration, the Korean Government developed the multiple systems. This includes the
“On-nara BPS(온나라)” which processes the government work online, a digital fiscal information system (dbrain) which is mainly responsible for integrating all the government financial activities for management and the government integrated data centre which performs the integrated management and operation of IT resources on a real time basis(Im & Seo, 2005). By using those systems, South Korea has digitalized government processes and expanded the information sharing which has resulted to tremendous course, manpower and time saving and work efficiency.

In the meantime, public official and citizens do not need to meet in person and for procurement and custom services anymore. Instead they save time using online services since this is online process and open to the public it further reduces the chance of corruption. And e-Participation portal called e-people was also developed to improve communication with citizens on policy issues. This helps give citizens an opportunity to participate in policy making as well as improved transparency of Public administration.

Other systems developed include: an online portal for G4C services called (main one 24 and Internet tax system called Home tax and an intelligent transport system called (ITS)(Suh, Chang, & Lee, 2011). With these systems, citizens do not have to visit Public office buildings and wait in long lines They can only use the online services whenever it is most convenient for them. These changes provide greater convenience for citizens and allows the government to be more effective and more helpful to the citizens.
1.6.2.2 Cases of enhanced Efficiency of Public Administration.


1. On-Nara Business Process system BPS

In the past, Public officials in Korea were challenged by the unreasonable and inefficient procedures. Often time they would have to repeat the same work using multiple forms or even line up for enperson reports (J. Lee, Kim, & Ahn, 2011). On-nara BPS which manages the way government work standardizes and integrates the business procedures of central and local government using the BRM business reference model. It manages all administrative procedures online, shares the progress and the results in real time and records every step in the process accurately and timely.

On-nara BPS has multiple functions. Document management is one of the most widely used on on-nara BPS. The public officials can create, share, report and approve documents online. This speeds up decision making within the organization and implementation outside the organization.

- With the memo report function, stakeholders can share information and their perspectives on in internal affairs without having to go through the approval process. Opinions can also be easily collected using this function.
- With the schedule management function, users can upload important schedules in advance and record the management performance.
- The meeting management function allows the members to register agendas, hold online meetings and record offline meetings.
- The directive management function lets government workers register directive they have received and facilitates real time updates and management of their work on these directives.

Nation-wide usage

On-nara Bps has 850,000 users from over 230 central and local government organization. On-nara Bps is gaining popularity and adding new users each year. It’s capacity to process business promptly and efficiently has cut down the average time required for Public officials to handle a standard documentation workload. It has decreased from 6hrs 32secs to less than 3 and half hours. It also enables Public officials to record and share the policy making process in real time and manage all the government work online and in public view. This contributes to enhancing transparency and efficiency of public administration.

On-nara Bps was selected as one of the top 10 e-government services in the 2007 world e-democracy forum, France. Today, 5 countries including Indonesia are considering the use of South Korea’s On-nara Bps in their countries. On-nara Bps is a short cut to transparent and efficient work.

2. dBrain(Digital Budget and Accounting System)

In the mid 2000s, Korea suffered from a lack of efficiency and transparent in handling government expenditures (D.-H. Shin & Kim, 2008). This deficit along with rapid changes in global economy generates
urgency for Korea to develop a financial information system that could manage national financial activities more transparently. This national financial information system was developed and is called dBrain (digital budget and accounting system). dBrain is a system that integrates and manages the entire range of government fiscal activities from tax revenue management to budget formulation and execution, settlement and performance management; all on a real time basis.

One of the most widely used services of dBrain is: Budget management which integrates all the fiscal activities from budget formulation to execution and settlement to performance management into a single system. dBrain also allows instant sharing of information on Public finances like revenues, expenditures, national assets, public debts (I. Song, 2014). Public officials are assigned to current projects and are responsible for recording all financial information in dBrain. This information includes budget formulation, project progress, background and Past progress. With real time updates, all users can track projects, information at a glance.

dBrain also enables online management of national financial activities through electronic bill presentment and payment (EBPP) and electronic funds transfer EFT.

The greatest benefit of introducing dBrain is that it increases efficiency and managing national finances and operations. This efficiency is enhanced by dbrain’s interconnection with 63 other systems from 46 institutions. Like the Public Procurement service, the national tax service and the Bank of Korea for affairs regarding contracting, tax collection and Fund transfer.
dBra...
The first thing that Gidc did was relocate all the service hardware to one place. Gradually it integrated the software and now even provides customized services to users. GIDC integrates, manages and operates over 47000 hardware and software components for 44 central government ministries. Such a large scale system is managed on a real time and basis using end tops which is an integration and operation system developed with Korea’s own technologies. GIDC protects national IT resources from various cyber threats by using e-ANSI Sung and integrated security system development internally GIDC is able to block hacking attack attempts, viruses, D-dose attacks and other forms of cyber threats from accessing e-government system.

GIDC developed a resource pool through integrated purchase of all IT resources that each government organization needs. Simultaneously it developed a cloud computing environment where government organization can borrow hardware or software through the internet (S. Shin, 2012). Integrated operation of e-government systems significantly reduces the average monthly failure time per piece of equipment decreasing it from 67min before GIDC was built to only 4min in 2014. Also integrated security measures make it possible to protect against cyber threats from D-Dos attack detection to blocking it only 20minutes.

Now that government ministries don’t tap to develop and operate their own system but can rely own system but can rely on systems put into place by e-government and access information resources as needed the cost for development and operation has decreased by 30%

GIDC is being evaluated as an ideal e-government model by the international community. It won the future government in the area of data center
in 2010 and the IT government excellence award from IT service management in 2011.

1.7 Research Questions
This thesis seeks to answer the following questions:

1. What are the most prevalent challenges facing e-government implementation in Kenya?
2. What are the opportunities of e-government implementation Kenya?
3. How does the implementation of e-government in Kenya relates with the Performances in the Public Sector?

1.8 Assumptions and Limitations
(i) Information acquired through the data collection is deemed appropriate and valid and thus will be relevant to the for analysis

(ii) The study expects cooperation from among the Kenyan interviewees studying in South Korea. It is therefore assumed that the participants during this study will be cooperative and avail the required data.

(iii) The study will only be within the scope of the end-users and the producers
CHAPTER 2: LITERATURE REVIEW

In this chapter, the applicable studies which have been advanced by various scholars is going to be discussed. Also various theories relating to e-government, technology and governance which will support of research problem is discussed highlighting the greater perspective of e-government is discussed.

2.1 Terminologies

2.1.1 Government

Government is a word which originates from Greek Κυβερνήτης (kyvernites), and whose meaning is "steersman", "pilot" or "rudder". A government has the mandate to create and to implement laws within the state either in the academic field, religious institution corporate, civil or any other. In this regard, the process of governing has got a lot to do with the administration or supervision. It can either be over the state, a particular group of individuals or over a collection of assets (ibid). Government has got many classifications, it can either be a democratic government, Aristocratic government, Republic, Monarchical or dictatorial government.

2.1.2 e-Government

E-Government (electronic government) involves the use of Information and Communication Technology (ICT) in order to enhance the functions

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10 Wikipedia https://www.wikipedia.com
of the government and service delivery to the people and the businesses. (United Nations Department of & Social Affairs, 2010) Adoption of e-government gives the citizens an opportunity to be involved in the decision-making process, get access to government functions swift manner and thus enhancing transparency, effectiveness, openness, inclusivity and revenue facilitation among others. e-Government can also be used to mean the use on the digital platform of information to render the services to the citizen (Caldow, 1999).

2.1.3 Citizen

According to Mintzberg, there is a very big variation between a citizen and a client and/or subjects and customers. He identified that a person must not be regarded as the customer so as to be granted them a well treatment or have a design of products which are customer oriented. The clear point of diversion is that whereas Clients pay for the services rendered to them, customers pay for the goods served. It is however worth noting also that the citizens have the rights that are far much above those of the customers and the clients—have duties, as stated by the laws of the land, to participate in the national building processes such as payment of taxes, abide by the rule of law (or otherwise face the punishment). Mintzberg pointed out that to imagine or to think that the citizens have the weight as the customers undermines the relationship under which the government have with their citizens (Mintzberg, 1996)
2.1.4 Community

The people in the society are not only the citizens of a particular government but they also take the role of employees, investors, non-profit organizations, Business owners, employers, students, customers, clients, parents and so on as shown in the fig 3 below. These together forms a community of individuals in a particular society and are tied together through various relations such as a common interaction. The interlink of all these ties together forms part of an interactive society whose interaction with the government from the top-down and bottom-up approach is acquired. The traditional connectivity of these systems is being enhanced through the use of technology which has resulted to the effective performances in terms of services delivery (Figure 4: Focal domain of government initiative Source: E-government for Development)

E-government is relatively new body of knowledge which cuts across a series of disciplines and whose impact and contribution to the success of a nation cannot be underestimated. It’s evolution and establishment
dates back to early 1990s, when the world wide web (www) was introduced. The use of e-government by most of the countries in the world is seen to have risen and made huge political, social and economic impact over the past few decades. This has attracted a pool of scholars from across different fields and disciplines to study the dynamics of the discipline. Most of which emanates from the Information and Communication Technology sector, Political Science, Business and Public administration among others. Research has shown that those countries with the highest number of Publications in the field are seen to produce a relatively better governance structure, effective and inclusive government networks. Today, e-government has been recognized as a research and Public policy field from across the world including the European Union and member states levels(Wimmer, Codagnone, & Janssen, 2008). The use of internet-enabled systems to run the affairs of the government has resulted to better performances in service delivery, transparency and openness to the members of the Public, businesses and various stakes within the government units.

As the world is changing and transforming from time to time, new forms of government and improvement in information and communication technology is also taking shape and advancing. E-government is a concept which originated in the Public administration of Industrial countries(Schuppan, 2009). Before the 1990s, the federal government in the united states were using the information technology systems for the back-end services and it did not have any attachment to the front customer-oriented services such as dissemination of the relevant information as well as service delivery. It has been acknowledged widely that e-government is indeed the cornerstone of the development and it forms the major part in
the future progress of a country (Chemutai, 2018) The use of information and communication technology to steer development agenda of the country has been the top priority of most of the governments. The success story of the miracle of Korea to relish economic growth within a very short period of time amounting to less than 5 decades is attributed to a deep rooted network of e-government systems. Over the past three years, the results from the polls done puts Korea in the lead for 3 consecutive times in EGDI index.

The use of e-government in the developing nations and more especially sub-Saharan Africa is seen to be still struggling. A lot has to do with with literacy levels, education on the use of internet technology and high cost of internet from most parts. Also akin to this is the vandalism of the cables responsible for the internet transmission brought about by the rise in unemployment rates.

2.2 Theoretical Framework

In Social science research a theory is a statement that involves the relationship between the concepts of study and that which is within a certain framework of constraints and the assumptions (Bacharach, 1989) and it usually commences when we establish a topic of interest during the study. The use of theories help us to understand a particular phenomenon in a more meaningful way that elicit a prompt relation from among the objects of observation.

The theory of Management Information Systems (MIS) will serve as the basis for this research. However, some other relevant theories will be adopted as supplemented theories. The use of the theory of Resource Based View for example will be relevant especially in relation to the set hypothesis. Furthermore, the adoption of the technology related theory
UTAUT will be equally relevant for this study on the e-government implementation in Kenya.

2.2.1 The Theory of Management Information Systems (MIS)

Management Information Systems (MIS) theory was advanced by Weber (1986), and the main fundamental principles that relate to the electronic government are discussed. This is in order that it corresponds to electronic and information framework in generality. In this theory, Affisco and Soliman (2011) pointed out that the E-Systems contains end-point facets that are responsible for keeping the information. It also has links that can disseminate information as well as information activators that respond when need be. For example, whenever there is information that are citizen centric, these platforms will allow an effective distribution of such data to be used by various organizations. This to mean that the people who are within the organization are part of the entire framework as opposed to merely being the actors in that particular setup. Because the actors are involved in the framework and because the framework is randomly selected between the actions and related variables of research, Management Information system may well be categorized as the individual function system.

The top-ranks in the platforms in the individual function systems in management portfolios do not appear discretely. However, it just appears to be a distraction that becomes relevant to attach the variables and actions of various individuals within the unit of study.

Management Information Systems theory shows that the motivation within the short span of time is to distribute the absolute figures to the
correct people involved and within a specified period. For the cases of long-span of time, the idea is to help the potentiality within an institution of authority by giving a strong basis decision-making as well as coordination of information so as to allow the developments within an institution.

![Diagram of MIS implementation process]

**Figure 5: Process of MIS implementation**  

### 2.2.2 The Theory of Resource Based View (RBV)

In this theory, the possessions that are owned by an individual, institution and/or organization serves as the basic contributing factor whether they are going to succeed or not. The endowments could be in form of the physical machinery, manpower or in terms of technology Conner (1991). These possessions give a company, institution or government a cutting edge in its competitive ability. For example, in the case of government
performance, the key determinants to its success is in terms of its ability to serve its citizens effectively and in a transparent manner. Also, this can be in terms of revenue allocation and funding of the various sectors of the economy within the country.

According to Sheng and Tam, the scholars in the areas of strategic management, have continually fail to appreciate the stand that, the ability to compete well within a system, for example in e-government ecosystem, depend on the strategic facets put in place from within and on other conditions from without (Sheng & Tam, 2014). However, for the past 15 years the Resource Based Theory viewpoint has evolved, and as such matching the correlation between the institutional capabilities, possessions and the implementation of electronic government is a surety comparative advantage in the public sector performances.
2.2.3 Unified Theory of Acceptance and Use of Technology (UTAUT)

This theory which was founded by Davis (1989) emphasized on the elements that correlates with the forecasted actions aimed at utilizing technology within an institutional setup. The Unified theory of acceptance and
use of technology is made up of 8 modalities which are hypothetic in nature. Davis pointed out that the Unified theory of acceptance and use of technology controls those modalities using the 4 determining guidelines of the intention to use technology (e-government).

Additionally, the Unified theory of acceptance and use of technology is seen to be reliable than the use of 8 modalities which are hypothetrical in nature. It also has the ability to provide the biggest index of variables in intentions to adopt technology.

2.2.4 Actor Network Theory (ANT)

Actor Network Theory (ANT) is a theory which was proposed and advanced by the social researcher John Law and Science & technologist Bruno Latour and Michel Callon (Muniesa, 2015). Actor Network Theory poses a strong divergent state from other theories given its solid nature of having people at play and also it has institutions and objects taking the place of actors in the process of social research. ANT has a heterogenous nature and its solid foundation plays around with non-similar components. This gives it a wider view and understanding of a social phenomenon as opposed to most of the theories which deals solely with one unit of observation. Furthermore, the said networks are of technical and social framework. When transacting any function, say searching for a job advertised through the government agencies for example, the actor-network would involve the advertiser (government) and the job seeker as well as the job registry, computer system, internet as well as coded messages involved. It
may also include other less obvious things such the log in details of the job seeker without which the process will not be complete.

The challenge of selection in Actor Network Theory is bound to happen in the sense that it involves the identification of the varied elements that are involved. The theory holds unto the position that every actor involved in the social network whether human, objects or any form of technical standardization is equally important player in the process. The ability of the Actor Network Theory to relates with material things and concepts makes it to assumes the technical name of “material-semiotic” in social research (John Law, 2012). ATN is a structural way of putting in focus the key players in the technological advancements such as in the Information and Communication Technology (ICT) sector, social stratum across others. It also grants both the human and the objects such as the case of the artifacts to have an agency state in the social dimensions (J. Law & Singleton, 2013)

Actor Network Theory opposes the idea of socially determining the piece of knowledge that can be scientifically proven. The thought behind this assumption is that for any scientific knowledge, there is a relationship among the human and non-human actors. The position of this theory makes it take a unique state from other theories (Callon, 1991).

As a result of the actor network operating swiftly, social order can be witnessed. For example, any attempt to remove the core important facets of an ideal society such as the internet connectivity, Television networks, the banks or even the president may lead to a decline in social order. All those actors are as good as when they are there.
CHAPTER 3: METHODOLOGY

This chapter highlights the research methodology and assigns the suitability of the type that correspond to my research purpose and objective. Research purpose falls mainly into 3 categories: Exploratory, descriptive and also explanatory (Yin, 1994).

3.1 Research Philosophy

A positivism approach was applied during this research. Positivists hold that a phenomenon is stable and can only be observed and described objectively without being interfered with. They regard that a reality should be separated and a series of observations should be made (Levin, 1991). Usually, this includes the alteration of the reality with the use of a changing independent variable in order to acquire the regularities and also to find the correlation between the elements of the observation. The positivism approach was very relevant in this study because it offered the clarity between the procedures of e-government and execution (Mungai, 2017).

3.2 Research Design

This research adopted the use of comparative case study design (Stuckey, 2016) and the Republic of South Korea was used as a benchmark for the implementation of e-government in Kenya. The use of comparative case study is a very important tool to analyze a particular occasion in order to achieve a greater knowledge of both the explicit and implicit social dimensions (Crasnow, 2011). Also, the application of case studies to carry out the research ensures that there is a wide variety of the data and which is flexible to use. Furthermore, comparative case studies are very
important for gaining an understanding on how a particular context influences the success of an intervention and how best to format the intervention into a particular context so as to acquire the desired results.

South Korea’s e-government system was chosen as the benchmark for the comparative study on implementation of e-government and public service performance in Kenya. The choice of South Korea as the benchmark was inspired by her competitiveness and e-government success portfolio as indicated by the UN e-government index which place Korea in the lead for a successive three survey periods from 2010, in 2012 and also in 2014\(^\text{11}\). Besides case studies, a focused group interview was carried out. In this case a group of 84 Kenyans studying in South Korea were interviewed in a group setting within a period of 1 month and that which was administered through skype. A predetermined questionnaire composing of structured questions was used. The choice of the interview questions was achieved through a comprehensive literature review on the same subject. The data were then analyzed through descriptive and interpretive statistical analysis.

The results from the interviews provided the user-experiences on the e-government services that has been used in Kenya over the long period of time since it was officially launched in 2004. The main purpose of the interview was to identify the limits under which the e-government platforms in Kenya have had on the lives of the Kenyan citizens over the last decade. The interviewees were asked about their experiences and the challenges they have ever had during the use of e-government services and also

the extend under which e-government services have had on their lives. Thus, the study expanded beyond highlighting the opportunities and the challenges in the same field. Beyond everything else, this study also analyzed the relation between the actors in the field such as the policy implementers and the citizens themselves in the same category.

3.3 Case study

South Korea was chosen as the appropriate selected country for comparison in this study. The choice of the was prompted by a continuous series of successes in e-government development index. According to the report by the United Nations e-government Development index (EGDI), South Korea has recorded a top Performance in e-government for a successive report period in 2010, 2012, and 2014. The parameters used by the UN-EGDI are very strict and as such placing South Korea on the lead has a lot to do with a strong framework of e-government policies and ICT-enabled services which has proven to be effective over time. Alongside South Korea, other countries such as the United States, Canada, Netherlands, United Kingdom and Northern Ireland among others have also recorded a top performance on the e-government development index.

3.4 E-government in South Korea (From Back-office Operation to Internet enabled administrative framework)

Comparing the performances of the countries is very hard. This is because of the complexities involved which includes and not limited to infrastructure in information technology, economic capabilities, the type of government systems, the frequency of internet use among other aspects
of comparison. The rate of transparency and open mindedness toward the information and communication technology also fluctuates. Also all these systems together vary because of the type of the market system (West, 2005).

Placing all those factors together, South Korea was ideal for benchmarking and comparing with the e-government scenario in Kenya because ten years ago, the republic of Korea having a structured framework on the e-government system established a top speed ICT network and the optical transmission network (OTN) in over 140 zones world-wide. The wide promotion of the network also made it possible for the swift access index of the internet from across the globe. Dating back to pre-internet use for administrative use, south Korea went through a series of Socio-political and administrative problems and at times made worse by a series of developmental crisis. Information and Communication technology was still low and the also there was no budget to cater for the ict needs. Korea however overcame all these myriad of crisis through institutionalization of various acts, reforms and formulation of success-oriented plans (Zhang & Kim, 2016).

Korea’s e-government falls into 3 stages of development as indicated in the table below. The country has registered an improvement in e-government process for over the last 20years. According to the UN e-government survey from 2010-2014, South Korea was ranked top both in e-government development index and e-participation. The movement towards digitalization of the administrative process in south Korea began in the late 80’s and with a massive revolution of the internet technology ¹²

<table>
<thead>
<tr>
<th>stage</th>
<th>Period</th>
<th>Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 PREPARATION STAGE</td>
<td>1987~1995</td>
<td>-Back-end administration – Public management, funds management, Academia and research, national army etc.</td>
</tr>
<tr>
<td>2 DIFFUSION STAGE</td>
<td>1996~2002</td>
<td>Front-end management e-government services enhancement. Government to citizens operations, social insurance management. Procurement service provision and so on</td>
</tr>
<tr>
<td>3 MATURATION STAGE</td>
<td>2003~NOW</td>
<td>Emphasis on the full execution of e-government services.</td>
</tr>
</tbody>
</table>

Table 1: Stages of e-government development in South Korea  
Source: E-government for women empowerment in Asia and the Pacific

### 3.4.1 Preparation Stage

During this stage, simple framework for Public administration was transformed into the digital platform. The services which were taking place in the back end was of the administrative system were converted for the proper public management. The initial move towards this digitalized
dream was established through a committee on the promotion of Administrative government through the use of internet in 1975. The committee came successive 4-year plans beginning 1978 through to 1996 whose main objective was on the construction of an Administrative Computer Network. It was during that period that the A C N enabled the automation of the process of administration, establishment of networks across all the government agencies and also provision of the basis for services provisions done online in 1990. The key areas focused in this type of administration included the following: online registration of the citizens, registration of the assets owned by the individuals, online registration of the automobiles, employment-related registration services, tax related and business-related registrations. All of these services were related to the residents in one Way Or The Other\textsuperscript{13}.

3.4.2 Diffusion Stage

A year after the transformation of the framework for Public administration was transformed into the digital platform in 1995, the initial plan for the promotion of the informatization framework was formed. The subsequent ones which includes the same informatization was also formed later in 1999. The purpose of these establishments was so as to have an informed nation so as to raise the competitive edge of the country. In line

with this dream, a series of goals and objectives were also formed. This included emphasis on the industries which are guided by the use of ICT so as to come up with technology-based products. This was also in order to match the levels of the OECD member countries, expansion of the internet-based infrastructure and also to improve on the quality of services to the citizens.

This initiative realized the role played by the government in the promotion and improvement of the productivity of the country and also her capacity to compete in the world markets. The use of online patent registration and systems related to taxes and tariffs, the internet for the management of port activities were also introduced.

3.4.3 Maturation Stage

This happened from 2003 to date. During the administration by Roh Moo-Hyun, continuation of the previous e-government strategies were exercised. Also, the same period of time witnessed the expansion of the initiatives by the government and enhancing the process of digitalization. This together resulted to an improved access to the necessary information by the citizens. The National Government Organization Act (NGOA) underwent through a series of transformation in 2004 which saw it transferring the functions of the e-government from the ministry of ICT to the ministry of Government Administration and Home affairs. This was so as to ensure that services by the e-government are separated from those of National information centers. The resulting fruits of this move included the following: Advanced integrated database of Public administration, widening the government to citizen services, online channel development
for ease of complains management, a shift to a digitalized network of work processes among others.

The year 2011 in South Korean marked the establishment of smart e-government platforms. This was in order to extend the services of the government by making good use of the Information Technologies. The rise in mobile technology also saw an increased index of service delivery through the use of mobile gadgets. This altogether has improved the degree to which the citizens get the access to the required services which are offered by the government, thus improving the decision making process.

3.5 Research Method – Qualitative

This study adopted the anti-foundational ontological positions, which argues that the real world does not exist independently of our knowledge of it. Thus, reality is rather socially constructed not discovered and varies between individuals/groups. A reality constructed socially is therefore shaped by social and cultural processes and also the meaning individuals attach to their actions (Furlong and Marsh 2010). However, in epistemological terms (and with regards to anti-foundational ontological positions), the study will find out the relationship between individual understandings and the meaning each individual attach to reality of the world. How the individual interprets the meaning of a social phenomenon will therefore form the basis of “interpretivism” (interpretivist theory of knowledge). Educational levels will be taken into consideration in understanding the viewpoints of each participant.
3.6 Study Population and Sample

A group of Kenyan students, business personalities and members from the Kenyan government body in Korea were the targeted population to participate during the focused group interview process. The choices were guided by the principles of the sampling process (Cochran, Mosteller, & Tukey, 1954) and also the fact that most of them have at one point had the services of e-government for the sole purpose of either applying for the passports, Identity Cards or any other online procedures.

3.6.1 Sampling

This study adopted a purposive sampling from various individuals from Kenya and have used the services of e-government at one point in their lives. Interviewees included males and females all of which were formally prior informed on the interview process in a group setting. To have a gainful insight from this comparative case study, a maximum of fifty members were interviewed in a group setting of five members in each group. Eight groups had three males and two females each, while two groups had three males and one female each.

3.7 Measures

The interview questions in the group setting aimed to capture feedback from the interviewee on the questions which are not limited to the following:

1. What is the perception on the current e-government state in Kenya across the public sector and among other stakeholders that take massive use of the service to enhance their day to day lives?
This question intends to receive a feedback on the state of mind of participants with respect to service delivery using the internet-guided protocols. This laid the bases for understanding their response to the second question.

2. To what extent can e-government guarantee transparency and effectiveness with the quality of service both to the government, citizens, businesses and employees in the public sector and what is the future potential of the same? These guiding questions were adopted from West’s study on the e-government and the transformation of service delivery and action attitude (West, 2004) in order to ascertain the impact of e-government in the digital age. West uses both website content as well as Public assessments to ascertain his view.

3.8 Strategy of Inquiry – Skype Group Interview

According to (Brinkmann, 2014), an interview is a conversation between people in which one is the researcher. They are relatively the simplest way to collect data from people (C. Gratton & Jones, 2004). Interviews also allow the researcher to investigate a target group to find out their own experiences in their words. Interviews provide grounds for rapport and trust building between the researcher and the participants (Chris Gratton & Jones, 2010) They also provide detailed responses and allow participants to reflect on events(Herring, Barab, Kling, & Gray, 2004). While there are different forms of interviews in social research, this study adopted the qualitative semi-structured interview method. The qualitative semi-structured interview is relevant for the study because it provides greater interest in interviewees’ view-points and gives insight into what
they see as important (Becker, Bryman, & Ferguson, 2012). The qualitative semi-structured interview will therefore be used as the method of collecting data on e-government performance in the case of Kenya and also the future of the digital democracy.

Regarding the study, the qualitative semi-structured interview done involved the following:

3.8.1 Group interviews

A group interview of fifty Kenya citizens living in South Korea for various undertakings was done. The groups were made up of cross-gender with male participants being more than that of the female participants. Individual interviews allow the researcher to better understand interviewees from their view point through an online face-to-face discussion (Chris Gratton & Jones, 2010). It also builds rapport and trust with the interviewee that allows for detailed discussions and personal perspectives about a phenomenon. The group interview schedule included biographical information, involvement in e-government processes, and impact of those services on the individual. All interviews were recorded and a summary of the discussions was transcribed and presented.

3.9 Data Analysis (Interpretivism)

Interpretivism explains that social phenomena cannot be understood independently of our interpretation of them (Furlong & Marsh, 2010). Interpretivism also gives room to the researcher to provide explanation of the relationship between social phenomena which is based on the interpretation of the meaning individual/subjects involved given their actions (Furlong and Marsh 2010). While the purpose of the research is to gather the
opinions of participants on e-government implementation and performance in Public sector in Kenya, it is important to note that the interpretivist approach will provide grounds to gain an insider’s (Kenyan nationals) perspective from within their geographical context (Heeks & Bailur, 2007). This is in line with (Schwandt, 1994) who noted that interpretivist approach provides deep insight into “the complex world of lived experience from the point of view of those who live it” (Furlong & Marsh, 2010) explained that, there is no objective truth with regards to the interpretivist approach but rather base on social constructions of individuals involved. This will therefore provide the grounds to explore and provide explanations with regards to the importance of perspectives on e-government. Following the interpretivist approach and its relevance to the research, the study used the qualitative research approach to understand and explore the viewpoints of participants. Thus, the qualitative research strategy of inquiry and method of data collection such as interviews (Creswell, 2009) was used for the study.

3.10 Ethical Considerations

Permission to conduct this research was sought from Seoul National University after the approval of my research proposal by the professors in charge on the same topic. An informed consent of the participants was used so as to ensure confidentiality and anonymity of the research process. A written consent which entails research information was presented to the participants prior to conducting the actual research. This provided participants with complete information to understand the purpose of and his/her role in the study (Kitzinger, 1994). Information regarding partici-
pants was preserved and held in high regards. While the research will conform to the laid down ethical considerations at the Seoul National University, integrity and professionalism was ensured to maintain high standards of the research.
CHAPTER 4: FINDINGS AND DISCUSSION

This chapter highlights and summarizes in details the results and subsequently the discussions from the findings from the case study between the case of Kenya and South Korea. Also, a descriptive analysis from the primary data collected through a semi-structured questionnaire administered during the focused group interview of the fifty Kenyan nationals residing in South Korea is discussed. This with the view of answering the previously highlighted research questions and the objectives of this particular case study. From the literature review, case analysis, comparative case study and group interview, a series of observation were identified. This will guide this research if formulating recommendations and offer a basis for further research undertaking.

As it was highlighted in the methodology of this particular study, the set questions contained in the semi-structured questionnaire was set based on the guidelines arrived at from the careful assessment of the literature review. Through the group skype interviews and through careful analysis of the documented secondary data on the e-government implementation in Kenya, the study identified challenges that will be tabled out in this findings section. There were also some positive signs of positive direction in the process of the project implementation.

From the world view analysis and from the UN e-government development index surveys\footnote{United Nations e-government development index survey 2008}, it is evident that the administrative systems of the governments that implement e-government systems achieve a higher sector performance in the various fields. This is consequently followed by a high satisfaction index in terms of service delivery (S. Kim & Kim, 2003).
The opportunities in which a country acquires through the implementation of the electronic government are huge ranging from, increased service delivery, reduced cases of corruption, availability of the better services to the public (Ndou, 2004).

From the discussions arising from the interviews, several respondents agreed that, one of the key achievements of e-government since its establishment in Kenya has been a good infrastructure in the Information and Communication technology. This is a crucial element for the reason that, the success in e-government implementation in developing nations need first to put all the required infrastructure of ICT in place in order that all the people will have an equal access to the relevant services (Dada, 2006).

There was also a clear indication on the mobile penetration in the Kenyan setup and which shows that the citizens are moving toward industrialization. Despite this move, some slow growth is still witnessed in most parts of the country. Several respondents during the group interview pointed out the literacy levels among the users. Most of those targeted by the e-government services have little or no technical know-how on the usability of the internet related services. As a result, they prefer carrying out the long manual process instead.

From the observation made by Schware, most developing countries has largely failed to adopt the e-government services to a greater percentage amounting to about 80% whereas total and partial failures amount to about 35% and 50% respectively (Schware & Deane, 2003). These statistics shows that the most of those nations fail to implement at all. South
Korea was face with the same predicament towards the end of 90’s immediately after the International Monetary Funds (IMF). The government of Korea was faced with the challenge of institutional and social transformation with respect to the technical know-how in ICT. In response to that, a drastic informatization was initiated so as to move to ICT-focused society so as to ensure the competitive edge of the country. A series of all these evolutions have earned Korea a global reputation as one of the countries with the best e-government systems in the world\textsuperscript{15}. Korea’s e-government system has since been exported and used by other countries such as in Indonesia who are extensively using the digital budget and accounting systems (dbrain).

The international actions by various policy makers in the field of e-governance and has shown that the nations who embrace e-government functions acquire more satisfaction index. This is with the view that all the opportunities that comes along with e-government can lead to the maximum utilization of transparency, equality and the use of flexible services among others (Ndou, 2004). One of the greatest achievements of e-government in Kenya was the formation of an elaborate Information and Communication Technology systems. Because for e-government to evolve, it is first of all necessary to have the infrastructure well in Place (Dada, 2006). The use of mobile technology is seen as well to have penetrated successively in the Kenya ICT sphere. This has become a major boost to the government functions from time to time. The households with this usage have continued to grow over time.

\textsuperscript{15} ibid
From the interview, most of them pointed out the idea that, Kenyan e-government system has evolved considerably. However, pressing challenges continuous to be a hindrance in implementation. In fact, the national strategy program has allowed the formulation of the key legal strategies. This is so as to help in the decisions related to e-government practices. The application of these e-services is provided by the application of a one unit of e-government portal. This is in order to ensure that e-services are increased.

Towards November 2013, there was a considerable rise in the e-services framework which was mainly carried out through the e-government platforms. This enhancement saw an increase in the number of users and service provision was achieved. The government of Kenya through the ambitions of Kenya Vision 2030 Created Huduma centres. These platforms were mainly for the purpose of offering a one-stop shop for the citizens. All the government services were placed in one unit and the citizens will just seek various services all at once. This move saw a reduction in time wasted going from one department to the other. It also allowed the citizens to a reduced spill of time. The most common e-government services included License related such as renewal of the driving licenses, application of passports, preliminary application of the marriage certificate and so on.

From the analysis of the results, it showed, that even though Kenyan e-government system continues to make progress, there was an indication of various challenges as compared to those of strong e-government systems. These includes the following:
4.1 **Infrastuctural challenges**

The respondents stressed on the information gap that exist in Kenya. Most of the developing nations affected by the digital division and Kenya is no exception. Deployment of the relevant Information and communication technology infrastructure remains an issue also in this developing countries (Ndou, 2004). The existence of these gaps has a direct impact on the e-government performances. E-services have been mainly deployed in the capital, Nairobi and besides being the hub of government action, it remains affected by non-extensive systems.

4.2 **Administrative challenges**

Currently, it is a true to say that the achievements of South Korea had the political support by the head of state and also making good use of the e-government ideology. Firstly, it came up with different and unique committees. These individuals also set aside funds (IPF) to aid in the implementation process. Also, the government of Korea occasionally carry out the evaluation because the government function is not done on one-time basis but a series of events. To deal with such an administrative challenge ought to borrow a leaf from Korea and implement such administrative protocol. Even though nations are different, generalization allows to come up with an ideal model of administration that will guide the performance in the e-government set-up. Such efforts towards the improvement in e-government system is ideal for productive output (Indeok Song & Bucy, 2008).

One of the respondents highlighted that the formation of e-government in Kenya began with massive computerization and alignment of the ICT systems from within and with the absence of coordination lowered the transparency by the actors of the state. Also, one interviewee observed that an
individual coordination has been fundamental in reducing the challenges that are from within.

4.3 Financial Barriers

Whether policies are good or not, it will serve no good if their feasibility is dwarfed. To make it reliable the budgetary allocation must be enhanced. It was with the view of this realization that the government of Korea came up with ideal budgetary allocation to fund e-government processes. This way it allowed the formation of an extensive networks of Information and communications systems. The same is a great lesson that Kenya as a developing country and in the process of implementing e-government should learn and adopt so as to make good use of such procedures. Most e-governments in developing nations depend on the foreign aid (Dada, 2006) and this feature is quite observable in Kenya. In relation to the e-government projects in Kenya, the government bodies depend on their financial capabilities and also get funding from the funding of the state budget. They also acquire financial support from grants and foreign state institutions. However, this kind of directive as pointed out by the some of the interviewees forms an uncertainty. This is because of the lack of a centralized funding system that will allow for the continues flow of funds needed for the implementation of the functions of the e-government. Currently, the allocation of funding in Kenya are not made Public and the information is only found in the reports and the financial records of the financial bodies that regulate the implementation of the project. To have a successful e-government implementation, there has to be a clear record of the sources of funding and the way in which those finances are to be distributed.
4.4 Legislative Barriers

The standpoint of any government process relies on the legal processes. Any implementation has to undergo through the legal proceedings before it is finally brought to public use. E-government in the same way follow the same suit. Adoption and implementation of the e-government relies on the institutional base as on the key important issue. (Holmes, 2001) suggested that to have an effective e-government system, the state must endeavor to remove the barriers and take the lead by example. In other words, it should create a legal platform necessary to push the agenda of a country. Holmes further argued that the state ought to look into it that it removes unnecessary regulations that are detrimental to digital development and digital innovations of the citizen.

In line with the above argument, most of the respondents during the group interview argued that the government of Kenya have created a lot of legal restrictions relating to the online usage. This undermines the freedom of speech and expression as well as the decision-making process. It is true to say that, allowing such online platforms to freely operate will grant the government to clearly understand the views of the citizens in a more elaborate way and thus coming up with decisive means of dealing with them. Others suggested that, such regulations should be amended because a lot of them were passed into government bill before e-government came into place. This therefore, did not factor in the future trends in e-government. They added that, “today it is very sad you can acquire a service that you want from the government within a period of 30days or more, yet with the use of e-service, the same can be achieved within a day.” Asking of why that is the case, they argued that it is in the written law and government
officers work within the guidelines of that law. That is why the decisions of the minister of ICT in Kenya has to pass the bill on such discrepancies to be amended if the state aims at realizing her vision.

It was also found that public participation and consultation was key to realizing the dream of the country.

4.5 Social Challenges

Besides the infrastructure of Information and Communication, there are some other various important factors which are key towards effective development and good use e-government. Good education and knowledge of ICT is a requisite to building a highly competitive and inclusive society with information (Lyon, 2013). Therefore, to have a highly competitive society and which is economically sustainable rest upon have a knowledge-based society.

The citizens should have an access to quality learning, direct from kindergarten all the way to tertiary institutions. This not only applies to the formal learning processes but also through vocational training and education as well as life skills (Un, 2016). In regards to these views, the education capacity of the tertiary education is not only good for citizens development and growth but it creates a top-notch employment portfolio which is a key asset in the 21st century. This is because the competitive edge of a country rest upon the knowledge index of her citizens. It is for that reason that South Korea registers the best e-government according to the United nation survey (Nations, 2014).

Also, from UN survey done as indicated in the table below, Kenya’s EGDI and e-participation is high that most of the countries within
the region. However, even though this is a positive indication, the survey indicated that the gross enrolment in the higher institution which is the most crucial towards human development is comparatively low. Some of the respondents during the study revealed that the high levels of non-enrolment to higher education is attributed to the high cost of education and that most parents cannot afford. They also noted that the government of Kenya has done a great move by offering free education for primary and secondary school going student. But even with that, there are some other necessary fees needed which most of them do cater for it. Therefore, as the higher learning forms part of the human capital, the government of Kenya should consider the serious social challenges attributable to low gross enrolment.

<table>
<thead>
<tr>
<th>Year</th>
<th>2010</th>
<th>2012</th>
<th>2014</th>
<th>2016</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGDI</td>
<td>0.3338</td>
<td>0.4212</td>
<td>0.3805</td>
<td>0.4186</td>
<td>0.4541</td>
</tr>
<tr>
<td>E-Participation</td>
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<td>0.0526</td>
<td>0.6471</td>
<td>0.5254</td>
<td>0.5337</td>
</tr>
</tbody>
</table>

Table 2: Kenya's e-government data from 2010-2018
Source: UN E-government survey

The Knowled gap between those who are digitally sound and the rest is an issue that creates a disparity among the various groups. The e-government system may not thrive if the government does not actively educate its citizens on the value of e-government (Dada, 2006). The government of Kenya is making efforts especially in the application of the Information and communication technology in academia as well as in service delivery ends.
Referring to South Korean case, there a highly heated campaign in 1994 stating, “let’s lead the world in information society, although we were late in industrialization.” This attracted a high-level feedback from the various citizens and stakeholders. Many institutions and Non-Governmental organizations ran campaigns towards the achievement of a particular targeted approach(S.-H. Song, 2007).

4.6 E-government opportunities

The prime goal of e-government adoption is to attain good governance through the use of information and communication technology (fig below). The use of e-government is not necessarily the upgrading of the quality of service delivery, efficiency and effectiveness but also to become accountable and raise the level of public participation. Some of the respondents mentioned the need for an accountable system whose citizens lay their trust at all times. Talking of e-government, they mentioned the absence of human interactions in the operation and therefore, the minimum requirement out of the system should be transparency and accountability at all times.
Figure 7: The role of e-government
Source: Korea Association of Policy Studies.

The application of e-government gives the citizens the opportunity and mandate to take part in decision making process and this gives them room to give their own ideas through the use of online and offline platforms (Ndou, 2004). During the 21st century, the most effective way that the government can reach to the citizens is through the use of e-government. Kenyan government ought to pick lessons from the Korean example used in this study in order to create an open information society and that which allows the citizens to exercise an active online participation.
CHAPTER 5: CONCLUSION

From the study, the conclusion was made that, the framework of electronic-government has an impact on the service delivery and performance in the public service. Several respondents from the focused interview showed a significant impact that e-government growth in Kenya has been taking place with a considerably low rate. Also, worth noting is the fact that even though there is a wide network of e-government functions, a lot has to be put in place in order to ensure that the intended functions of the e-government are met within the stipulated time period.

Also, the study reveals that the role of government legal system has a relationship with the e-government performance in the public service of Kenya. With regards to the challenges facing the e-government system today in Kenya, the study recommends that there should be a well-regulated approach in-order to ensure its full effectiveness in all the key institutions of the government. Finally, this study recommends that there should be well diversified scale of Ict knowledge within the ministry of Information and Communication Technology of Kenya so as to make good use of the trending current technology which will be adopted in the Kenyan e-government systems. Also the management stakeholders responsible for strategizing e-government in Kenya should ensure that there is an efficient access to the information and materials by the consumers at the areas responsible for service delivery.

The comparative case study between Kenya and south Korea have indicated clearly that during the implementation of e-government, the very fundamental functions and provisions of the e-government need to be enhanced and that optimizing the projects which were already there is not
necessary. It is however of essence that since the technology is of a greater impact, the backlash is that the e-government in the context of Kenya may turn out to be in contrast with the intended functions and the goals in the long run. There is a possibility of challenges of hierarchy, centralism and the corruption issues are bound to happen when such issues as political and administration consideration which are not properly addressed. The implementation and development of e-government reaches it maximum potential and the threshold when some of the necessary preconditions are met and within the right dimensional approaches. On several occasions, the lack of the proper infrastructural institutionalization and policy framework makes it difficult to change the administrative situation over a short period of time. Also, the e-government environment and strategies ought to provide room to discuss the challenges such as the high level of illiteracy in terms of the information and communication technology by the locals, the lack of majority of IT Officials who should be responsible for implementation processes among others. There is also a myriad of rural poor connectivity in which contrary to the performance of the ICT in Korea, Kenya is still faced with connectivity barriers and so on. Generally, the movement of e-government ideals from the highly performing nation such as South Korea and others to Kenya needs more than structural implementation. There is issue of acceptance index which has to grow among the denizens over a period of time. There has to be an improved acceptance where the people decide to shift from the traditional communication indexes to the modern means of communication and service deliveries among others.

Although it is true to say that the E-government rhetoric emanating from Kenya and other developing countries is often the same with those in the developed nations, the challenges which need to be addressed by the e-
government is often times not the same.

Because of the extensive bureaucracies and institutional conditions in the Kenya, arrangements which takes longer time are expected and this lowers the expected performances across all the country. The projection that the e-government projects in Kenya fail is basically basing on the comparison and the experiences of the developed countries. Good development of e-government focusses mostly on the capacity building.

Adoption and implementation of the e-government by the Kenyan stakeholders ought to look into the applicable competences and that which are beyond the scope of the Information and communication technology systems. The government of Kenya offers a huge potential for e-government manifestation and that which is futuristic in stake. From the comparative perspective and with the views of the Kenyans in the Korea, making use of the e-government platforms in Kenya is multi-dimensional. The political leaders have a key role in determining the direction of e-government systems in. Strong institutions guided by strong rule of laws provides the opportunity to choose what best suits the citizens and under what conditions. This also has to do with the affinity to technology and the related areas. If this is what contributes to good governance, transparency and effectiveness in service delivery, then the government should mainly focus on such important platforms.

5.1 Limitations

This study aimed at looking at the implementation of e-government in Kenya with regards to the framework of opportunities and challenges in Kenya. It also aimed at benchmarking on the Korea’s best e-government
system. Even though the study has been successful in the scope there are limitations.

First of all, the firsthand data collected allowed the documentation and descriptive analysis of Kenya’s e-government system since the information was acquired from the reliable sources. However, more detailed data, wide enough would have been achieved had it involve a wide range of personalities and users of e-government services in Kenya. But because of financial and time constraints, mainly scholars and some business expatriates took part in this survey. Secondly, the secondary sources that was used in this study is relating to the past years and may not necessarily relate the current actual developments in the Kenyan e-government system.

Thirdly, this research only captures the data from end-users and consumers of e-services and e-government services but did not involve the government officials and the policy implementers responsible for the e-government implementation. That would have contributed an important aspect of this research as well. Lastly, the observations made for this research is related to the Kenyan e-government system and may not be generalizable and applied to other countries. As for the theoretical framework and some other aspects, they can equally be applied elsewhere.

5.2 Future Research

The future research has to incorporate the members of the government body who are directly linked to the e-government or are in charge of the Information and communication technologies. This will help to gain a better understanding of a proper fragmented government system. This
study has found out the challenges facing e-government implementation in Kenya. However, the root cause of such challenges has not been given priority during this research. This therefore gives prospects for further studies in the same subject. E-government is increasingly becoming a key interested subject to most scholars. It would also be a fundamental aspect to consider the carrying out a research on determinant factors towards the realization of an effective e-government system.

In summary, this study has shown that the e-government is not the only current model government’s use of information and communication technology to reach out to the citizens, stakeholders and other employees in the common basic interaction and daily communications, but a self-assuring means of enhancing the formulation of a good governance. Therefore, a well-designed political will, strong institutions and government matched with collaborative deeds will eventually result in an effective realization of the dream of a country.
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Appendix 1

Request for Permission to Interview

An individual permission to participate in the group interview was send to all the participants and with the following contents:

Dear Sir/madam,

My name is Simon Kirui, a student of Political Science, master’s program at Seoul National University, South Korea. I am carrying out a research on the subject “A Study on Implementation of E-Government and Public Service Performance in Kenya: Framework of Opportunities and Challenges”

Using South Korea as the benchmark of my study, I seek to find the depth of e-government implementation in Kenya with regards to the opportunities and challenges. I am therefore, humbling requesting for your convenient time in any of the listed days below so that you can participate in a group skype interview alongside with other members. This interview forms an important part of my research. A list of thirteen (13) semi structured questions will be exhaustively discussed so as to capture the key interested part of my research. The choice of questions was chosen after a careful literature review on the similar subject. I believe that your contribution, knowledge and experience will be a valuable towards this study.

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This is to also confirm that your personal information and responses will be kept confidential and will not be used for any other purposes except for the sole purpose of this research.

Your contributions will highly be appreciated.

Your Sincerely,

Simon Kirui
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Political Science Major
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Gwanak-ro, Gwanak-ru, Seoul 151-015, Korea
E-mail: kirusimo@snu.ac.kr; simonkirui4@gmail.com
Appendix 2

Interview Questions

SECTION A: Demographics

1. Please provide your details

   a. Name:

   ______________________________

   b. Age Group:

   [ ] 21 – 25  [ ] 26 – 30
   [ ] 31 – 35  [ ] 36 – 40

   c. Gender:

   [ ] Male  [ ] Female

   d. Occupation:

   ______________________________

   e. Duration spent in Kenya:

   ______________________________

SECTION B: Group Lead Questions

1. How often do you use the internet?
2. What are the main sites that you use the internet for in Kenya?
4. In your internet use, do you use e-government services? If yes, List down some of the e-government sites that you use mainly visit.

5. What is your view on e-government implementation in Kenyan? Should they implement more or less.

6. Why do you think that the Government of Kenya should have e-government services to the citizens?

7. In your own view, are there opportunities on e-government implementation? If yes, Kindly list some of the opportunities?

8. In your own view, are there challenges on e-government implementation? If yes, Kindly list some of the challenges?

9. In your view, what’s the level of e-government and ICT sphere in Kenya?

10. How would you rate the coordination of e-government in Kenya?

11. The global e-governments shows that at times the project fail due to financial constraints. What do you think in relation to the Kenyan case?


13. Do Public consultations take place before adoption of any e-government platforms.

14. Kindly list down e-Services or e-government practices you think should be adopted by the government. For example, Payment of tax, access to government services etc. (You may list as much as you can)

15. During the past few years, the various international bodies and UN stresses on the importance of considering language items, e-literacy, physically handicapped, usage trust by the users and transparency of the systems and social classes while designing the e-government. What will you say about those issues in Kenyan case.

16. Kindly provide your suggestions or comments with regards to the electronic services and the future of e-government in Kenya.

Your personal views, opinions, and contribution will be confidential and will only be used for the purpose of this research

Thank you for your participation and cooperation.
Abstract (Korean)

전자 정부 (전자 정부)는 시민, 직원, 기업 및 다양한 이해관계자에 대한 정부의 서비스 제공을 향상시키기 위한 정보 통신기술 (ICT)의 사용이 포함된다. 전자 정부의 채택 및 시행은 시민들이 의사 결정 과정에 참여할 수 있는 기회를 부여하고 정부 서비스에 신속하게 접근하여, 투명성, 효과성, 개방성, 포괄성 및 수익 증대를 향상시킨다. 전자 정부 서비스 이용 및 응용 능력은 지난 20년 동안 개발 도상국에서 많이 향상되었다. 개발 도상국 중 하나인 케냐는 공공 부문 내의 행정, 사회 정치 및 경제 기관과 같은 모든 정부 관련 서비스 제공 완료에 걸친 정보 통신 기술 플랫폼의 사용을 향상시킴으로써 크게 성장하였다. 90년대 이전에는 전 세계 대부분의 정부가 비즈니스 조직과 마찬가지로 측근 운영을 위해 전자 서비스를 사용했다. 서비스 제공이나 시민들에게 정보를 배포하는 수단과 같은 고객 중심의 운영에 대해서는 별로 관심이 없었다. 그러나, 90년대를 계기로, 측근의 기본 전자 기능에서보다 시민 중심의 서비스로 전환되었다. 인터넷 관련 서비스 및 관리 프레임워크로의 전환은 효율성과 개방성, 투명성 및 책임성을 선호하는 환경으로 인해 이루어졌다. 케냐에서는 전자 정부 서비스의 설립 진행 및 기반이 다지어지고 있다. 그러나 일부 분야는 시행 과정에서 여러 어려움에 직면해오고 있다. 같은 맥락에서 케냐 공공 부문의 전자 정부 구현 및 공연과 관련된 도전과 기회를 비판적으로 분석한 연구는 거의 없다.
정부의 운영에 정보 기술 시스템을 사용하는 것은 경제 성장과 개발을 촉진하는 수단으로 간주되며, 이는 결과적으로 국가 경쟁력을 결정한다. 예를 들어, 본 연구의 벤치마킹 국가인 한국은 행정의 모든 측면에서 정교한 전자 정부 응용 프로그램에 성공을 거둔 것으로 평가된다. 유엔 전자 정부 개발 조사 보고서에 따르면 대한민국은 2010 년, 2012 년, 2014 년의 3 년 연속 최고 기록을 세웠다. 본 연구는 개발 도상국 및 특히 관찰 대상인 케냐 정부의 행정 단위와 관련하여 공공 부문의 성과뿐만 아니라 전자 정부 시행의 기회와 도전 과제를 분석하는 일반적인 목적에 중점을 두었다. 핵심 원칙과 모범 사례는 한국의 전자 정부 시스템에서 채택되었다. 본 연구는 케냐 정부의 정보 통신 기술 인프라와 성과 사이의 관계를 확립하기 위해 더욱 좁혀졌고, 이는 주로 전자 기반 시스템 응용 프로그램의 사용이 공공 서비스의 성과와 관련이 있는지를 확인하는 것이었다. 본 연구의 기반은 거버넌스 프로세스와 관련된 다양한 이론을 사용하여 수립되었다. 첫째, MIS (Management Information Systems) 이론이 본 연구의 기반이 되었다. 다른 관련된 이론들은 보충 이론으로 적용되었다. 또한 기술 관련 이론의 채택 및 활용 기술에 관한 이론 (UTAUT)의 채택은 케냐의 전자 정부 구현에 대한이 연구와 마찬가지로 적절했다. 본 연구는 비교 사례 연구 (Yin, 2003)를 채택하고 한국을 전자 정부 시스템의 우수 사례 벤치 마크로 사용했다. 비교 사례 연구에서 질적 연구 방법이 주로 사용되었다. 그러나 초점을 맞춘 그룹 인터뷰를 통해 얻은 1 차 데이터는 특히 케냐의 전자 정부 채택의 기회와 도전에 대한 객관성에 대한 통찰력을 얻기 위해 특별히 사용되었습니다. 주요 대상 연구는
한국에서 공부하는 케냐 학생들이었다. 참여자의 선택은 거의 모든 국가가 해당 국가의 다양한 분야를 대표하고 전자 정부 서비스가 해당 분야에서 적극적으로 사용된다는 점에서 매우 관련이 있다.

본 연구에서 전자 정부의 기본 틀은 공공 서비스에서의 서비스 제공 및 성과에 영향을 미친다는 결론을 내렸다. 또한 이 연구는 정부 법률 시스템의 역할이 케냐의 공무 수행에 있어 전자 정부 성과와 관련이 있음을 보여준다. 오늘날 케냐의 전자 정부 시스템이 직면한 문제와 관련하여 본 연구는 정부의 모든 주요 기관에 대한 완전한 효과성을 보장하기 위해 잘 규제된 접근 방식이 있어야 한다고 권고한다. 마지막으로 본 연구는 케냐의 정보 통신 기술부 내에서 정보 통신 기술 (ICT)에 대한 지식의 다양화가 이루어져야 케냐의 최신 기술을 적극 활용할 것을 권고한다. 정부 시스템, 또한 케냐의 전자 정부 전략 수립에 책임이 있는 관리 이해 관계자는 서비스 제공 분야의 소비자가 정보 및 자료에 효율적으로 접근할 수 있도록 해야한다.

키워드 : 전자 정부, 공공 부문, 전자 참여, 전자 시민, 서비스 제공
학번 : 2017-20905