ACHIEVING PUBLIC SERVICE REFORM THROUGH E-GOVERNMENT INITIATIVE
THE CASE STUDY OF NIGERIA

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DECLARATION

I Abdullahi Umar Sani, being aware of my full liability, hereby declare that all the texts, diagrams and tables in this thesis, save for parts referenced in accordance with the applicable requirements, are original and exclusively the product of my work and do not originate from any other documents or contributor.
ABSTRACT

E-government initiatives are emerging continuously in developing countries. Many researchers and professionals in this field have agreed on its potential to increase effectiveness, efficiency, and transparency. Furthermore, its potentials can improve institutional capacity, citizen participation, and transparency which will enhance economic growth in general. The Nigerian government has not adequately integrated ICT into public administration, which will boost the relationship between government and the citizens. ICT has transformed the process of governance into the digital era governance, which has stimulated public management for the benefit of the citizens. E-government has become an essential element of public sector reform; it has the ability to change the way public sector operates. United Nations as the front advocate of E-governance have emphasized that it is the key to achieving sustainable development in third world countries.

Despite the adaptation of E-government, countries like Nigeria are yet to benefit its capabilities fully. There are so many areas in government activities where the impact and potentials of E-government have not been fully achieved in Nigeria. Numerous studies have shown that there is a limitation on the successful implementation of E-government in Nigeria, which results in various debates and research on the reasons it lacks progression. The research argues that E-government has a transformational impact on public administration, and it has influenced governance and public service delivery in the country efficiently.

The research method used is a qualitative case study for data analysis; administrative burden was used as the criteria to measure performance. Using standard cost model, the author measured the level of administrative burden before and after the implementation of E-government applications. Also, the author uses Cape Verde as a best practice, to examine those factors affecting E-government development in Nigeria.

The research findings showed that E-government has a lot of potentials, and it can quickly transform public administration when adopted the right way. The comparison between Nigeria and Cape Verde identify the barriers affecting E-government development in Nigeria, and it describes the reason behinds Cape Verde’s massive achievement over the last four years. Therefore, the author suggested that the leadership in Nigeria needs to do a lot better, by defining a clear vision and goals on E-government initiative. The government also needs to design policies that will improve the level of knowledge and skills especially that of ICT.
The government needs to also invest in all the necessary infrastructures that are essential for citizens to access E-government applications. Also, the government needs to initiate the ‘once only’ and strategy and the one-stop portal to boost efficiency and effectiveness.
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<tbody>
<tr>
<td>AB</td>
<td>Administrative Burden</td>
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<td>ABR</td>
<td>Administrative Burden Reduction</td>
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<td>CAC</td>
<td>Cooperate Affairs Commission</td>
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<td>EGDI</td>
<td>E-government Development</td>
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<td>E-government</td>
<td>Electronic Government</td>
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<td>G2B</td>
<td>Government-to-Business</td>
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<td>Government-to-Citizen</td>
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<td>G2G</td>
<td>Government-to-Government</td>
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<td>HCI</td>
<td>Human Capital Index</td>
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<td>ICT</td>
<td>Information and Communication Technology</td>
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<td>IDI</td>
<td>ICT Development Index</td>
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<td>ITU</td>
<td>International Telecommunication Union</td>
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<td>NeGSt</td>
<td>Nigerian E-Government Strategy</td>
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<td>NITDA</td>
<td>National Information Technology Development Agency</td>
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<td>NPM</td>
<td>New Public Management</td>
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<td>NPR</td>
<td>National Partnership for Reinventing Government</td>
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<td>OECD</td>
<td>Organization of Economic Co-operation and Development</td>
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<td>OSI</td>
<td>Online Service Index</td>
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<td>PA</td>
<td>Public Administration</td>
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<td>PAR</td>
<td>Public Administrative Reform</td>
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<td>SCM</td>
<td>Standard Cost Model</td>
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<td>TII</td>
<td>Telecommunication Infrastructure Index</td>
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<td>UN</td>
<td>United Nations</td>
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<td>UNDP</td>
<td>United Nations Development Project</td>
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<td>WSIS</td>
<td>World Summit on Information Society</td>
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CHAPTER ONE: INTRODUCTION

1.1 INTRODUCTION

In recent years there has been growing importance towards public service reform in the world. According to UNDP (2015), Public Administration Reform can be very broad, which includes process changes in areas such as organizational structures, decentralization, personnel management, public finance, results-based management, regulatory reforms and public service delivery. This thread has led to so many countries implementing reform initiatives, such as the new public management, structural adjustment reforms, and E-government. PAR according to United Nations is the key for government to achieve sustainable development, especially for developing countries such as Nigeria (UN, 2016). This trend is driven by citizens who are continuously asking for good governance; citizens want the state and its public administration to act as social and economic promoters, who can provide equal distribution, equitable opportunities and cost-effective management of resources UNDP (2015).

E-government has become a vital component of public sector reform; it is an instrument for so many countries, to transform their public sector in order to enhance citizen’s participation, monitoring and evaluation, government accountability and transparency, better service delivery and the transfer of information from one sector to another. According to OECD (2003), E-government provides the capacity to reform the way public administrations operate, which can result in more customer-focused and responsive government. It can also be described as the use of information and communication technologies (ICT) and in particular the web, as a tool to achieve better governance. E-government can be applied to almost all public policy areas, from the consultation and communication by the stakeholders, to strategy development to address critical issues such as administrative burden reduction, and as a means to initiate better policies, implementation of best practices across the entire levels of government. That is why E-government is regarded as an essential support tool for public sector transformation.

According to OECD (2003), the ability of researchers to study the impact of ICT in public sector, using private sector models, have contributed to the to the usage of ICT in government. It has also contributed to the formation of E-government guidelines that are driven by efficiency, managerial values and economic gain, (OECD, 2010). Some element of
the post-NPM era of the public management is established by what happened before, which contains an element that has worked and has the potential to develop and also eliminating those that haven’t worked and reversed what was left out by NPM (Dunleavy et al., 2006). Therefore we can say that the unique and distinguishing features of the current changes in the organization and management of the public sector revolve around ICT growth and development. ICT has been an essential element that brings changes to the public administration for so many decades. The first wave of ICT started with automated data processing, abolishing so many clerical positions and significant alterations in administrative decision processes (Dunleavy et al., 2006). The waves of ICT change that occurred before the late 1990s had an insufficient transformative impact, office automation were adapted and fitted into the pre-existing organizational culture of the government agencies.

Public administrators have within the last decade realized that ICT is a valuable tool that can help the government to achieve their aims and objectives, (Oni et al., 2016). Governments around the world have continued to embrace and implement ICT in the public sector because it is clear that ICT is a handy tool that can enable public institutions to change. From routine-based, command and control organization that is focused on Administration to knowledge-based, networked, learning organization that is extremely focused on better services, Omeire (2014).

The incorporation of ICT in government has been advocated by scholars and international organizations like the UN. It is one of the crucial aspects of the UN sustainable development goals, towards achieving better service delivery, through “one-stop-shops” online, or through other systems that allow public services management, making it easier for people to interact with PA and to get responses to their inquiries and needs, UN (2016). This particular reason has led many developing countries including Nigeria to imitate various E-government policies to improve development and transformation, by allowing better and faster service delivery, efficiency and cost-effectiveness.

The development of the internet, email, and World Wide Web has provided an opportunity for the government to provide better services to citizens in an inventive way, Olufemi (2012). It brought about a fundamental transition from paper-based to electronic record keeping, the implementation of website and communication network within organizations, electronic
procurement systems, and a medium to provide information to the public, thereby improving openness and transparency on the day-to-day activities of the government.

Information is open and can be accessed at any time of the day from every location that has access to the internet. The most crucial element of the E-government is the ability of the citizens to conduct most of their business with the government electronically, and transact with various departments, units and agencies of the government simultaneously, thereby saving time and administrative burden of both the citizens and the public managers. Someone who is applying or renewing his international passport could use the government platform to obtain information about the processing fees and all the requirements for the application (Adeyemo, 2013).

The study is within the context of Nigeria, which is part of the developing countries around the world where E-government is evolving rapidly. So this research will focus on examining the impact of E-government on public administration. It is hoped that the findings will encourage governments around the world to better understand the importance and invest more in its development.

1.2 Research Problem and Motivation

The concept of E-government has become an integral part of transformation efforts undertaken by countries around the world. As claimed by the UN, E-government promises that it offers the opportunity to make the impossible possible for the developing, (UN, 2016). Perhaps E-government will be adopted universally in the end, yet its impact will differ among countries with differences in organizational, societal and administrative systems. OECD (2013) believes that expectations regarding the impact on citizen-centric services drive an E-government idea, and not entirely focused on economic efficiency gains, can improve a more responsive public service delivery, (OECD, 2010).

According to UN (2016) E-government survey 2016 Nigeria is the 143rd country in the E-government development index ranking, and it is among the countries that are under the category of middle EGDI. The reports further reveal that Nigeria is ranked 21st among the 53 African countries. As observed from the year 2003 to 2016 Nigeria has only moved two places on the E-government development index, from 145th to 143rd. According to Yusuf (2006), the activity of E-government is deficient in Nigeria. Most ministries, departments, and Agencies websites are in the publishing stages; they serve as information board, which
provides organizational and political information to the public, and they are not frequently updated. Only a few of these websites have reached the interactive and the transactional stage.

It was proposed by Chatfield (2009) that E-government can achieve transformation by making public administration to move from bureaucracies and traditional government-centric public service which is ineffective and lacks efficiency. But there is a growing debate on whether E-government has the transformational impact on governance, performance, and public service delivery or not. Furthermore, achieving reform through E-government is relatively risky and complicated because of commitment required from policymakers, public servants, and management. Given the complications of achieving reforms through E-government, there is no doubt that scholars of E-government have had a mixed result regarding E-government impact on public service transformation.

Even though the progress with developing countries is relatively slow and uneven, Nigeria could have done better with the number of abundant resources at its disposal. According to Olufemi (2012), there are so many areas in government activities where the impact and potentials of E-government have not been fully achieved in Nigeria. Many studies have shown that there is a limitation on the successful implementation of E-government in Nigeria, which results in various debates and research on the reason it lacks progression. Aneke (2009) emphasizes that E-government can only grow through investment, learning, and development of guidelines and standards to successfully meet citizen’s expectations. The primary inspiration for this research is to observe if E-government is working in Nigeria and understand the relationship between public service reform through E-government and government performance.

1.3 Aim and Objectives

This research aims to study and check if public service reform can be achieved by the implementation of E-government, by understanding the relationship between public service reform through E-government and service delivery.

The primary objectives of this research are

- To identify the effect of E-government with regards to public service reform in Nigeria.
To evaluate the cost and benefit of E-government towards public service delivery.

To understand the extent to which E-government is responsible for the change in the public service.

To develop a theoretical model that will examine the factors affecting the development of E-government in public Administration.

To highlight the importance of E-government as a fundamental tool to improve government performance, and to obtain knowledge on how Nigeria can adopt a lead from the countries where it is successful.

1.4 Research Questions

The Master’s thesis will focus on the following research questions:

1. Does E-government have a transformational impact on public management in Nigeria?

   a. What are the factors that hinder the transformational powers and development of E-government in Nigeria?

To answer the first research question, which is seeking to understand if E-government has a transformational impact on public management? The research will tend to provide evidence on improving government performance and also to prove that the use of ICT in public service is responsible for the performance improvement. Therefore the research will use administrative burden reduction as criteria for measuring government performance with emphasis on efficiency and effectiveness. Measuring the level of reduction in administrative burden as a result of ICT usage in public administration will decide whether the modernization of the public administration was as a result of the implementation of E-government. Furthermore, this modernization will provide digital services for citizens and save cost across the public sector.

The sub-research question, which is focusing on the factors that are affecting the development of E-government in Nigeria, this question would be answered by drawing a comparison with other countries, E.g., Cape Verde, which have achieved 100 percent implementation of E-government. The review of best practices will explore the concept of E-government outside Nigeria and use it as a foundation to analyze problems and
recommendations. The study will analyze how Cape Verde’s E-government works, its foundation and some examples of where it has been useful. The country will provide a fair comparison regarding differences and similarities. The author believes that learning from ‘best practice,’ would provide a considerable experience to Nigeria and it would maximize benefit and reduce the risk of E-government implementation in the country.

1.5 Research Outline
The research outline for this thesis is based on academic standing and requirements of the institution. Below is a detailed description of the thesis structure and what exactly should be expected from each chapter.

Chapter 1: Introduction
The first section of the thesis will provide a background of the research topic, and also the necessary introduction on the type and reason behind the research problem. It also discusses the historical background of E-government and the motivation behind the study. Furthermore, the aims and objectives are stated; followed by the research question and its description.

Chapter 2: Literature Review
This chapter presents detailed explanation on E-government through the review of relevant literature on E-government and public administration. It provides a theoretical framework, which has to do with the evolutionary stages of E-government and dimension of E-government services in the country of study ranging from G2G, G2C, G2E, and G2B. It is then followed by an argument on information society which is a vital part of E-government and its development.

Chapter 3: Methodology
This chapter represents the data theory; it provides the platform to test and validate the theoretical concept that was proposed under the literature review. The literature review is fundamental to the research because it establishes background knowledge for the research which allows the author to understand and identify the problems. This chapter provides a research method that would be a platform to test and analyze the research problem. The qualitative analysis would be used for the research, together with a case study protocol. Also, standard cost model would be discussed, and a broad description of the method will be given. Moreover, the research design process is also highlighted, and the motivation for choosing the
relevant method would be specified. Finally, the method of data collection would be identified and explain.

Chapter 4: Analysis

This chapter discusses the case study. As a result, data analysis and findings were discussed from the case study on the main idea of the research which is the transformational impact of E-government to public administration. Also using the survey of best practices and the relevant information from that, the relevant factors that are hindering the development of E-government in Nigeria will also be analyzed.

Chapter 5: Conclusion and Recommendation

This is the final chapter of the thesis; it provides an outline of the research overview and findings. This chapter will highlight the author’s contribution to the topic of E-government, both theoretically and practically. The chapter will use the outcomes from the analysis chapter to review and make recommendations on the E-government development and the right way to improve its impact on the public administration.

1.6 Conclusion

E-government provides the capacity to reform the way public administrations operate, which can result in more customer-focused and responsive government. It can also be described as the use of information and communication technologies (ICT) and specifically the internet, as a tool to achieve good governance. The research argues that E-government will evolve if government around the world knows the importance and impact that it brings to public administration. The study is within the context of Nigeria, which is part of the developing countries around the world where E-government is evolving rapidly. So this research will focus on examining the impact of E-government on public administration with the hopes that the findings will encourage government around the world to better understand the importance and invest more in its development. It is believed that this research will offer a better understanding of E-government and the potential gaps that may exist when it is not implemented. This chapter provides the background of the study. This chapter presents the research questions and the motivation behind the study. The next chapter will cover the review of the related literature from which the study will take its shape.
CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction
This chapter will focus on literature background, with an explanation of the concepts and characteristics of E-government. The objective of the chapter is to review existing literature that was written by different researchers and academicians from around the world. In the recent years, the amount of services that are being driven by ICT has tripled, resulting in a more technological and internet-centric society.

E-government is defined in different ways; some perceive E-government from a narrow point of view, in which ICT and internet are exploited to improve efficiency and effectiveness of government systems, while others view it from a broader point of view which has to do with government reform and procedural change (Al-Shafi. 2009). Al-Shafi (2009) added that E-government definition is usually focused around ICT, public administration, users (citizens), procedures and functional perspectives. E-government is defined as the deployment of information and communication technology by the government in delivering services to the public and its usage in running and networking among government departments, units and agencies. Researchers also describe the concept of E-government as a multi-discipline approach because it combines the characteristics of information technology and public administration with a common goal towards customer satisfaction (Otubu, 2009).

According to OECD (2003), E-government should allow users to access government information and services when, where and how they want it through a favorable channel. However, this principle has made researchers realize that benefit of web-based service depends on how they are organized and provided to users not just on the availability of those services (OECD, 2010). Globalization has made the world to move from the age of industry towards that of information (Othman and Rahmat, 2006). Thus we have recently seen public sector adapting the concept to electronic business into their day to day activities, and this saw the development of electronic government. The evolution of E-government is a continuous transformation, in which ICT has played an essential role in changing and shifting from a traditional bureaucratic model of public administration into a citizen focus E-government model. Given the bureaucratic nature of government tasks, the use of ICT provides a strategic way to perform tasks, procedures, and interdepartmental processes a well as cost-effective and an easy way to interacts with citizens.
Indeed, in the last 20 years, ICT introduction in the public sector has increased efficiency in government activities and also accountable to citizens. The latest development in E-government has shown that ICT can play an essential role in innovation, economic growth and social development (Patrick et al., 2006). According to Othman and Rahmat (2006), utilization of ICT is vital to governments, because so many applications are designed to enhance the citizens to access government services and also to perform online transactions. However, the benefits of E-government have been observed since from the early stages of its existence; failures have been observed too, mainly with regards to implementation. It has been observed by (Heeks, 2006) that 35% of the applications associated with E-government encountered failure in most developing countries, while 50% are labeled as a partial failure and conclusively only the remaining 15% are successful. Heeks (2006) went on to conclude that most of the developing countries have adapted ICT with the aim of improving service delivery, but only a few developing countries are successful in doing that. E-government development enables countries to reduce corruption, which can lead to increase in competitiveness and welfare promoting better economic development.

The significant expectation of E-government in the public sector is to enhance service quality and citizen satisfaction, to provide efficient and effective services to citizens, through better communications and feedback, also access to online information. As stated by Fang (2002), the leading idea of E-government is to provide information to people and government departments efficiently. It also includes internal and external government interaction, better service delivery, improving democratic processes, and broader administrative improvement. E-government could be used by a government institution to perform their functions in different ways. ICT might not have the capacity to change the wrong way of doing something to a right way, but one of the essential features of E-government is that it can be used to develop and manage public policies (Desta & Yoon, 2017).

Desta & Yoon (2017) further stated that the significant setback of E-government is that workers realize that adoption of E-government is a threat to their position, which makes them have a fear of losing their jobs. For E-government to be acceptable by workers, they have to understand the importance of E-government and to make sure that it won’t endanger their positions. It could be done through tailored fit retraining and skill development, which will provide much higher opportunity for the employees in different roles. Fang (2002) believe that when it comes to E-government implementation leaders have an essential task of finding the sources of conflict and creating a way to neutralize them.
2.2 Historical Background: Evolution of E-government

Since the start of the 20th century, governments around the world have made so many efforts to use ICT as a source of efficiency in the public sector. To accomplish this, they have continuously implemented more structured approaches to the use of ICT, by increasingly putting information online and developing more transactional online services to the citizens (OECD, 2017).

There was a revolution in the private sector in the 1990s, which introduced the concept of E-commerce in the private sector (UN, 2008). The usage of the E-commerce has given people around the world more experience with the online services offered by the private sector and has changed their views on what they expect from the public sector (Al-Shafi, 2009). Citizens began to want their government to provide services just the way the private enterprises does. These factors, together with public expectations regarding service delivery, transparency, and more citizen participation made the government adjust and adapt the concept of E-government to the public service.

The development of E-government in the USA started when there was a need for an electronic platform within which the government can interact with the citizens (Ashaye 2014). In 1994 president Clinton included a set of internet-era goals to his NPR, which was a substantial commitment, (Dunleavy et al., 2006). Thousands of federal websites blossomed and overgrew, even though internet information was poorly provided, the barriers between federal and state were poorly bridged, and issues with regards to ‘digital divide’ were not addressed. After four attempts to establish a government-link portal, ‘firstgov’ (www.first.gov) was successfully established in 2000.

Majority of the developed countries have achieved successful adoption of E-government, while many developing countries like Nigeria who are still in transition into E-government have formulated plans, visions, and a timeframe to achieve this global trend (Ashaye, 2014). E-government development in Nigeria took off in 2001; E-government development has been spread through the arms of government with a substantial difference in method, scope, and speed due to the size of administration and resources dedicated to E-government. Aneke (2009) have observed the fact that no growing economy can be sustainable without the integration of ICT with its development strategy. This particular reason has made the
government of Nigeria adopt and integrate ICT into the public sector with the aim of attaining sustainable development.

E-government was declared a national priority in Nigeria which led to the formulation of policy for information technology in 2001. In 2007 the Nigerian government established the National Information Technology Development Agency through the enabling law of the national assembly known as “National Information Technology Development Act 2007”, (Adeyemo, 2010). NITDA was formulated to support, develop and promote the use of ICT to modernize and transform public administration and improve the relationship with citizens. NITDA has established the platform for ICT development and set up the basis for E-government initiative in Nigeria. NITDA sees the use of ICT in the public sector as one of the most important policy areas to be developed as a booster to improve public management, transparency, and access to information, making public service delivery more efficient and convenient.

The Nigerian government also created a private-public partnership, which is a joint venture called ‘National E-government Strategies Limited’ (NeGST). The joint venture must “create practical strategy and architecture to guide the evolution of E-government solutions with standards, platforms, and applications across agencies and government systems,” (Adeyomo, 2010). Despite the making of E-government a national priority and efforts made in recent years with regards to growing demand coming from the citizens, Nigeria has struggled to make notable progress in digital government performance.

2.3 Evolutionary Stages of E-government

Different stages have been identified in the evolution of E-government services around the world. According to the United Nations, in the last two decades, governments around the world have embraced E-government services, starting from a simple web-based presence that offers one-way communication, to two-way communication with an additional function of the transaction with users (UN 2008). The transition of government administration went on to become a more integrated online presence that added value to the citizens. Every successful E-government implementation cannot be seen as a one-step process; it is evolutionary, which passes through different stages before attaining its full potential (Olufemi, 2012). There are different models developed which explain the stages of E-government implementation. Figure 2.1 shows the United Nations model, which is the most popular and have been adopted by various researchers and academicians in the field of E-government.
These models have some similar stages, and also differ in the number of stages and functions. Some of these models include Lee's four-stage model (Layne & Lee, 2001), Murphy’s four-stage model (Murphy, 2005) and Howard’s three-stage model (Howard, 2001). Looking at the models from the researcher’s point of view, we can conclude that development of an E-government solution requires a staged process, where it begins from ‘immature’ to the ‘mature’ stage. The latter provides full integration into the public management leading to a better service provision and effectiveness (Irani et al., 2008).

Having mastered different E-government models, researchers have different views on how many stages of maturity could E-government have. Some researchers believe that only three stages are essential while others believe that four and even five stages are required (Al-Shafi, 2009). The author accentuates that it is difficult to find mutual understanding among scholars, on the number of stages that E-government should pass through and whether the early stage should be a prerequisite for moving on to the next stage. Below is a detailed description of the United Nations E-government model which is represented in figure 2.1. (UN 2016)

- Emerging presence: this is the stage in which a country commits to imitated E-government. A web presence is established. A government website that is linked to ministries, agencies, departments which provide citizens with fixed institutional or
political information. Some relevant documents such as the constitution and policy statement are uploaded on the websites also.

- **Enhanced presence:** in this stage, the government begins to improve its online presence, by increasing the number of official websites. The website becomes more flexible with regular update. The interaction is still one-way with the flow of information strictly from the government to citizens.

- **Interactive presence:** the government expands its presence on the internet, providing the interaction function allowing citizens to get access to varieties of government information and services.

- **Transactional presence:** This stage provides two-way interaction between the government and the citizens. Citizens can perform a transaction with government electronically from the comfort of their homes. It includes self-service functions for paying taxes, requesting new driver’s license and passport.

- **Networked or fully integrated presence:** this stage represents the highest level of the online E-government initiatives. It is described by the integration of G2G, G2C, C2G interactions. This development encourages participatory decision making which involves the citizens in two-way interaction.

Even though E-government implementation in developing countries is still in progress, researchers have admitted that there is a little indication which shows a dominant result on its usage and implementation, as E-government activity is relatively low. Furthermore, Olufemi (2012) stated that implementation of E-government has begun in Nigeria, but there is little proof that shows that the transparent process for E-government adoption is followed. According to Olufemi (2012) and Yusuf (2006), activities in E-government are relatively low in Nigeria. Most government websites are in the emerging stage, and only a few organizations are offering the interactive services to the citizens. Some organizations have skipped the interaction stage thereby limiting citizens’ ability to make a request and receive feedbacks. Observed findings by Mundi and Musa (2010), showed that 30% of the Nigerian government websites had reached the third stage (interactive presence) and 70% of them are still in the enhance stage of E-government. However some progress has been achieved over the last three years, it is a gradual process for Nigeria, but the author believes that the country is on the verge of experiencing rapid growth on E-government.
2.4 The Dimension of E-government services

The introduction of E-government has been vital to government, which serves as an essential development tool. This development has improved and introduced governmental functional capabilities. Al-Shafi (2009), reports that E-government adaptation can be examined with regards to different sectors of government. According to Danfulani (2013), E-government uses the component of networks, which provide a relationship between government and other sectors concerning the integration of ICT within the public administration. Furthermore, it is very vital to understand the procedures associated with organizational culture existing within the organization (Backus, 2001). Interactions within government and between other sectors will allow E-government to make it friendlier, convenient, transparent and cost-effective (Chadwick & May 2003). E-government services are categorized according to target groups, which have different views, and services are designed according to their needs. The government is continuously counting on these services to provide a significant benefit to its employees, citizens, business, and NGOs (Fang, 2002). Fang added that the main idea of E-government services is to bring citizens and businesses closer to their government.

However, according to the concept mentioned above, E-government services emerged in a different dimension which includes government-government, government-to-citizens, government-to-employees, and government-to-business. These dimensions have aided the transition and development of E-government entirely. The author will try to explore and provide more detailed information on the dimension of E-government services.

2.4.1 Government-to-Government (G2G)

G2G is an inter-governmental service that focuses on providing better communication and services among local, state and federal governments; it also allows transaction between ministries, agencies, and other departments (Al-Shafi, 2009). The main aim is to provide a reliable bond and cooperation among different sectors of government. Chavan & Rathod (2009), Emphasize that G2G can also be a tool for international relations and diplomacy among different countries. So many researchers believe that G2G is the most crucial part of E-government development. Fang (2002), reports that the enhancement and improvement of government back-end systems and processes must be achieved before an online transaction with stakeholders (citizens, businesses, and NGOs) can be successful. The most critical aspect of G2G is an exchange of data and conducting two-way electronic request between organizations, which includes both internal and external communication at the federal level.
as well as request and transfer of information among central and local level. From the description mentioned above of G2G by different researchers, the author concludes that the primary objectives of this particular dimension of E-government are as follows:

- G2G enables coordination among all levels of government, to work together in providing better services to the citizen and businesses.
- G2G increases the productivity of government employees by eliminating the traditional paper-based way of communication and sharing information.

**Example of G2G services:** an example of G2G service as reported by Imran et al., (2017) is the criminal justice portal of the State of Tennessee. It serves as an information unit for law enforcement and justice department. It allows them to search through different databases in order to get access to information and the intelligence that will support them in fighting crime for the communities to be safe. The portal was implemented to serve as a single resource, through the integration of state driver’s license information, vehicle registration, orders of protection, wanted criminals and offenders management system database. Moreover, the portal provides comprehensive law enforcement and investigation information on individuals.

**2.4.2 Government-to-Citizen (G2C)**

G2C focuses on providing platforms that provide user-friendly services, which will sustain the continuous request of citizens. Moreover, these solutions are designed to improve citizens interaction with government. So many researchers have revealed that this function should be the primary objective of E-government (Carter & Belanger, 2005). This initiative offers e-services to the citizens, which includes an update on government information online, request services, and complete transactions (Imran et.al., 2017). Examples of G2C opportunities range from tax payment and record keeping, personal documents renewal (passport, driver’s license) and also online assistance when it comes to employment, health and safety issues. United Nations alongside some E-government advocates suggest that this initiative should adopt the whole-of-government’ approach, which tries to create inter-departmental collaboration that will result in providing one-stop-shop, where citizens can perform different functions, especially those that have to do with different agencies (UN, 2016). Indeed, this would save time and energy of citizens from initiating contacts with each agency individually. This particular function made interaction and transaction more personalized, detailed and tailored to particular citizen interests and needs. The communication becomes
one-to-one and not the usual one-to-many, making the bond between citizens and government even stronger.

According to Seifert and Peterson (2002), the G2C initiative has the potential to grow in a way that it may encourage citizen-to-citizen communication and debate, by eliminating the possible time and geographic differences, therefore connecting citizens who may not have the opportunity to come together and discuss or give suggestion regarding a common national problem. G2C initiatives can also create an environment where citizens can engage the government through dialogue promoting and increasing the rate of public participation in government and decision making since they can easily interact with government and have a better understanding of laws, policies, and regulations (Reffat, 2003). Based on the perspectives mentioned above, the author highlighted some objectives associated with the G2C dimension as follows:

- Services should be designed based on citizens' needs.
- Citizens will have access to convenient online services.
- Also, Creating a better relationship and building trust with citizens.

**Example of G2C services:** an example of the G2C initiative is US ‘FirstGov’ website. It is designed to serve as a host for millions of US government portals, which provides information, services, and online transactions (Patrick et al., 2006). Another example is Australian ‘Centrelink’ online claim and services. Centrelink is responsible for providing health and welfare support services for Australian citizens. The online portal allows students to claim youth allowance and Austudy, and also apprentice to claim maternity payment and family benefit. People can use the platform to access their information, make corrections to ensure accuracy and regular payments. Citizens can also make a new online claim without getting in contact with customer support all from the comfort of their homes. (Imran et al., 2017).

### 2.4.3 Government-to-Business (G2B)

The G2B dimension of E-government provides a two-way transaction and interaction between government and the private sector (Palvia & Sharma, 2007). This initiative receives so many attention because of how vital the private sector is to sustainable development. Bonham et al., (2001) Reported that G2B could reduce cost by creating an electronic marketplace for government purchases and procurement. Moreover, it will increase
competition among companies bidding for a contract. The G2B initiative gives the opportunity for the exchange of various services between the government and the commercial society. Services covered by G2C include information about rules and regulations, payment of taxes and declaration of revenue, registration of new businesses, renewal of a business license, procurement and customs administration (Chavan & Rethod, 2009). Furthermore, the G2B initiative is used to promote entrepreneurship among citizens, by providing online information on guidelines alongside access to government loans and raw materials. According to Palvia & Sharma (2007), this particular dimension might be easier and cheaper to implement than the G2C services because the private sector is already exposed to ICT than an average citizen. Therefore, by adopting this initiative through online services, government procedures with the business sector becomes more organized, efficient and reduce the transactional burden on employees. The author believes both government and the business world benefits from this dimension of E-government. From the business point of view, this initiative provides an opportunity for the private sector and the public sector to partner and work together for the greater good of the home country. The government also profits from this initiative through cost reduction, efficiency and eliminating corruption that is associated with the procurement processes. The author brings out the best part of the G2B dimension from the theories mentioned above:

- Reducing administrative burden on both business and government, thereby increasing the ease of doing business which will improve commercial development in any giving country.
- Companies don’t need to share their data multiple times, allowing the public organization to reuse data by providing the ‘once only’ function.
- In total, the flexibility being offered through this initiative will attract international investors, and also make the domestic companies competitive in the global market.

Example of G2B Initiative: The Brazilian E-procurement system, which is an online procurement system. So many government procurement units use it, it allows them to publish their needs to the general public, and registered companies will be automatically alerted by the system. Companies can download all the necessary documents that they need to tender their bid. The system was designed to give equal opportunity to all citizens, making the process more transparent, cost reduction and improved the quality of goods and services received (Imran et al., 2017).
2.4.4 Government-to-Employee (G2E)

The G2E initiative offers specialized services that are meant for only government employees, such as making career application convenient, training and development of employees, and performance management which will improve the day-to-day activities of the government (Chavan & Rethod, 2009). According to Imran et al., (2017), the functions provided by this dimension does not only assist the human resources in carrying out their responsibilities, but it also increases transparency, accountability, and efficiency which overall enhances the quality of services that would be rendered to the citizens. G2E is an extension of G2C. This solution is all about empowering employees, to guide and assist users in the fastest and easiest possible way, reduce administrative burden, and boost the regulatory provision of services. The author has highlighted the following objectives of this dimension.

- Coordination and team-work among government employees.
- Measure performance which is very vital to increasing productivity.

Example of G2E initiative: an example of G2E is Mississippi’s access channel for employees (ACE). This solution provides employees with access to their payroll and tax record using a web-based application. Employees can log-in using their username and password to view their payroll accounts and be able to print their pay slip (Romulo & Akthar, 2003).

2.4.5 Nigeria’s E-government Dimension

E-government in Nigeria is currently being implemented in two areas, Government-to-employees and government-to-citizens (Ifinedo, 2005). Under the G2E context, the government provides an electronic payment method for salaries. This particular led to the development of integrated payroll and personal information system (IPPIS). This system is a centralized system that helps the government manage employees information and to plan payroll budget. Employees can access their payment and be able to make changes to their information. This solution over the last couple of years has helped in detecting ghost workers in the payroll and stopping payments to their account which have saved a lot of money for the Nigerian government (Adeyemo, 2013). When it comes to G2C Dimension Nigeria, has made visible progress that ranges from web-based registration and examination for the university matriculation examination, online registration and issuance of driver’s license and international passport. The only current G2B initiative is the CAC optimized web-based
business registration system. It is the focal point of this research. All of these services provide the most convenient services to the citizens, reducing both costs and time in the process.

According to Amagoh (2015), G2G imitative are considered to be the next most crucial aspect of E-government in Nigeria. So many researchers and experts have asserted that this dimension of E-government can increase cooperation and coordination within the Nigerian public administration by eliminating all possible barriers. A centralized data unit could become available for government agencies to access, which will enhance interoperability among different branches of public administration, and duplicate services could also be detected (Danfulani, 2013). A developing country like Nigeria could benefit from such efficient and cost-effective government activities, where standard and data resources are commonly shared.

2.5 Information society

Electronic government is importantly linked to the information society and the benefits associated with it. E-government allows the integration and networking of government services using ICT to service delivery. The most critical part of E-government is human resources, information, and infrastructure. The evolvement of the world from the ‘industrial age’ to the world of the information society, has transformed so many countries into an information-driven economy (Webster, 2005). The transformation was as a result of changes caused by technology development and wave of globalization. The world power ranking which includes the wealth, power and influence of a nation depends on how fast they can produce access, transfer and make use of information (Dike, 2007). Information society has rapidly changed the different aspects of life, ranging from commerce, communication, health, education, governance (Barnett, 2000). Currently, with the advanced information systems, people don’t need to leave the comfort of their homes to receive or exchange information; information can easily be transferred over networks, linking people and different geographical locations together. This concept also applies to the exchange of goods and services. For example, the university can offer distance learning that allows them to convey knowledge and training to students regardless of their geographical location.

Information society has been used severally as an economical, technical, social and cultural perception. So many researchers described information society based on their discipline and field of study, so currently, there is not an accepted definition of the term. Rao (2005) described information society as a society with high level of information awareness among its
citizens, through the use of a standard technology for their day-to-day activities. With the above definition and explanation, the author perceives information society to be any society, in which its economic and cultural activities are being driven by the rapid production, distribution, and manipulation of information promptly, using ICT as a tool. According to Turner (2014), information society is considered to be a building block because it is based on technological findings.

The importance of knowledge and information are clear, around the world countries come together to build a people-centered, all-inclusive, and development-focused information society. This current commitment is believed to build a society where everyone can have access to information allowing individuals to achieve his or her full potentials towards sustainable development and better life quality (ITU, 2015). The world summit for information society (WSIS) was initiated to achieve these objectives. It was established by the international telecommunication union (ITU) which is a specialized agency of the United Nations. The mission of the conference was to highlight the apparent path for building an all-inclusive global information society which is being driven by technology. Since 2007 ITU has measured information society from different regions, ranging from developed countries to developing countries and the least developed countries. ITU uses two criteria to measure information society development, which includes ICT development and affordability of ICTs to individuals and households worldwide. The ICT development criterion focuses mainly on access, use and skills of citizens for ICT, while affordability focuses more on prices (ITU, 2015).
The ICT development index uses different indicators to form the measuring criteria that can be used to monitor ICT development between countries within a given time frame. The idea of ICT development index is as follows: (ITU, 2015)

- To measure Changes in ICT development in countries over a period of time.
- To show Differences among countries regarding their ICT knowledge.
- The development ability of ICT and the opportunity to which countries can make use of it to promote growth and sustainability.

ICT is so important because if used correctly, it can boost development, which is very vital to countries that are moving towards information societies. Figure 2.2 illustrated the procedure of ICT development, and countries evolution towards information society using a three-stage model. An information society can only be achieved through the integration of the three factors showed in Figure 2.2, which includes access to ICT infrastructure, level of ICT usage, and the skills needed to operate ICTs effectively. Below is a detailed explanation of the factors mentioned above given by the author (ITU, 2015).

- Access to ICT infrastructure: This criterion is one of the sub-indexes that form the ICT development index. It is made up of five access and infrastructure indicators, which includes household with access to the internet, a household with a computer, mobile telephone subscription, fixed telephone subscription and internet bandwidth to
internet users. This particular indicator represents ICT readiness within a geographical location.

- Level of ICT usage: this factor explains the ICT intensity, represented by an intensity and usage indicators. These indicators include people using the internet, subscription for mobile broadband, and subscription of fixed broadband.
- Skills needed for ICT usage: this indicator intends to apprehend skills and capabilities which are very vital for ICTs operation. It takes into account adult literacy, level of secondary school enrolment and level of university enrolment. Keep in mind that this indicator does not measure ICT-related abilities directly, so it is giving less weight than the first two mentioned indicators when calculating the overall IDI.

A single indicator can not track the growth in all three Factors in ICT development. Therefore it is necessary to produce a comprehensive index created to capture the evolution of information society as it passes through different steps of development. According to ITU (2015), these indicators can be easily used over a period to mirror the emergence of new technology that has to do with ICT and improve supply and quality of data. The author asserts that information society is an essential part of E-government because you cannot describe E-government without ICT, infrastructure and skilled users.

2.5.1 Information Society in Nigeria

The internet has been successfully integrated into the society in developed countries but has a very long way to go in realizing a similar level of diffusion in developing countries. ITU (2015) reported that there are more than 500 million internet users in the world and 80% of them are in the developed countries, and also two people out of every five are online. While in developing countries only one person out of every 50 has access to the internet, nevertheless there is still a visible application of the information society. The information society is not just about providing information to different parts of the world, but it is about the available content.

Even with the global economic crisis, it is unquestionable that new ICTs development like the internet has enhanced business and market growth, restructured learning and knowledge diffusion, empowered people and their communities in a way that reforms governance is creating wealth and sustainable economic growth. The wave of information society can be evidently seen in so many countries including Nigeria, and it is very likely to progress in the
years to come as technology improves and causes necessary changes to the condition of human life (Jorgenson & Vu, 2016).

The potential growth in Nigerian’s ICT sector over the years has influenced government to introduce policies that will make it possible to prosper. The government has put in place various approaches and actions that will foster universal access to ICT for its citizens (Lin, 2008). According to ITU (2017) report on ICT development, Nigeria is ranked 143rd in the world IDI index, and 16th in Africa, with an overall IDI value of 2.44.

Figure 2.3 illustrates the sub-indexes that made up the IDI index, from the qualitative result we can see that Nigeria has a fixed telephone subscription of 0.08%, mobile telephone subscription of 81.82%, a household with computers 10.56%, and households with internet access 15.23% with an overall ICT index points of 3.16. From the ICT usage index, 25.67% of the individual are using the internet and a broadband subscription of 21.80 percent. Also, 55.70% of individuals are enrolled or passed through secondary school, while only 10.07% of individuals are enrolled or graduated from tertiary institutions (ITU, 2017).

According to Nigeria’s IDI index value and ranking, the author can quickly conclude that information society is not going in the right path, and there must be reasons behind such representation. According to Dambatta (2017), there is a vast access gap on the availability and usage of ICT tools, with so many areas that have no ICT infrastructure while some areas are insufficient. Another huge problem is the inadequate electric power supply, causing high overheads to business in the country, which mainly hindered the ability of many Nigerians to pay for high cost of ICT gadgets and services. ICT knowledge and skills are still very
populace among Nigerians; this is commonly due to the high rate of poverty and illiteracy which are the two most significant socio-economic problems in the country (Dambatta, 2017). So many researchers have mentioned that getting education empowers people by giving them access to all the necessary things that they need to live a very productive and sustainable life and at long run leads to human capital development, which is vital to growing economies (Webster, 1995). Most of the ICT equipment is being imported from other parts of the world because there are weak development initiatives; continuous reliance on foreign companies has slowed down the successful revolution to the information society. With these setbacks, information society in Nigeria will not reach its potentials, so there is a need for the administration to put more effort in neutralizing this problem.

2.6 Administrative Burden Reduction

According to EU (2014) “administrative burdens are the costs to businesses and citizens for complying with information obligation as a result of government-imposed regulations.” OECD (2010) mentioned that E-government had been used in most of its member countries to reduce the frontline burden on civil servants by simplifying requirements and procedures that result in an unnecessary burden on authorities. It is assumed that the use of ICT in public administration has successfully reduced red taping, through innovation and service development with the goal of reducing the time required for service provision. ABR can be achieved through the combination of E-government tools, the smart use of information that citizens have to provide to public authority, and making electronic channel the dominant channel for providing services to the public. The Latter is the most commonly used in Nigeria (EU, 2014).

OECD (2008) stated that “cutting red tape should be the main concern of every government.” Citizens and business have complained that they sacrifice a lot of time and resources when requesting for a service from the government, through procedures such as filling out forms, applications for licenses and permits, providing information on business, etc. Red taping is believed by many public administration experts to be costly to the government. It is costly not only in money or time spent going through all the bureaucratic activities but regarding production reduction and business development. Administrative burden is not suitable for smaller businesses and may even discourage people from starting up a new business; this may affect the ease of doing the business of a country and affects competition (Ntaliani & Costaopoulou, 2017).
According to Arendsen (2013), the total administrative burden on business under the European Union was projected to be around 600 billion Euros per year, ranging from 6.8% on GDP in Hungary, and 1.5% of GDP in the UK. Lowering ABR is one of the EU’s agenda on E-government. Individual countries are also executing their plans, taking into account the Dutch case, which was a label to be ‘world leading’ on ABR focuses more on E-government because it is taken as the vital piece to achieving ABR. Therefore E-government can be considered as an essential tool to reduce ABR.

The research will take corporate affairs administration reform through E-government as a case study, to measure the level of ABR after the implementation of E-government in the organization. Corporate Affairs Commission (CAC) is the agency responsible for regulating the formation of business names and management of companies in Nigeria. CAC was established in 1990 as an agency under the ministry of commerce and investment.

The primary function of CAC is to create an environment that will boost ease of doing business and allow businesses to grow in Nigeria. Over the years CAC has initiated series of reforms to change the way of doing business in the country, which will boost economic development. As mentioned by CAC (2017), administrative activities were carried out manually before 2004. The manual administrative processes have resulted in so many problems, which include duplication and mistakes in company names as well as the registration number, and it is time-consuming. In 2004 the organization eliminated the manual registration by the implementation of software which provides an electronic platform for registration. In 2014 the software was replaced by a registration portal, which allows customers to process, and pay for new company registration electronically. The platform is meant to improve in corporate administrative efficiency in both back office and frontline management.

According to the Guardian (2017), owners of potential businesses can reserve a proposed name, get feedback through the platform, and key in all the necessary information for their registration. With the growing number of entrepreneurs visiting CAC for registrations, they had to wait for hours being attended to, and it can take days or weeks before they can receive their certification, but with the new electronic platform, the time frame for company registration was reduced to 24 hours. The manual application and registration were gradually phased out across the country; the commission has made all registration and submission to be done online and pick up their certificates within the next 24 hours. It is a form of digital by
default; business owners are obliged to use the electronic platform. IT reduced the ABR for government by reducing costs, and also for users by saving time and money and increase convenience. Therefore the research question would be answered by analyzing the level of ABR after the implementation of the Electronic platform by the CAC.

2.7 Benefit of E-government
Reforms on public management with the main goal of improving performance have always been an important issue for both developed and developing countries. As the author mentioned in the previous chapter, citizens expectations, globalization, changing societies and economic demand has influenced continuous reforms. Reforms have enhanced the various characteristics of good governance, ranging from efficiency, effectiveness, accountability, consultation and citizen participation. In many countries, ICT has been a vital enabling key for reform, which makes them embrace E-government as a means for transforming public management and contributing to government objectives (OECD, 2003). According to Heeks (2001), E-government benefits include productivity increase, better service delivery, efficiency gain and cost reduction by eliminating the traditional paperwork system. These objectives may require a trade-off between efficiency and effectiveness, accountability and customer focus, efficiency and openness, in these situations, priorities have to be set. Moreover, it should not be anticipated that this trade-off cannot be avoided many countries have set up offices to handle and solve these issues (OECD, 2003). The author will describe some of the important benefits of E-government below:

2.7.1 Cost Reduction and Efficiency Gain
Many researchers stated that E-government could significantly increase efficiency if implemented correctly. With the integration of ICT in public administration, operational activities of government can be undertaken in better improved and economical way (Jaeger, 2003). Processing cost resulting from various activities of government can be reduced, lowering administrative costs and time spent on tasks for both government employees and citizens. Some researchers also argue that E-government initiative produce standard outcomes by reducing common administrative errors. Basu (2004), reports that businesses constantly face administrative burden while interacting with government, but through E-government, this set back can be overcome, reducing transaction costs both government and businesses resulting in a more efficient revenue generation. The implementation of E-government has been influencing the need to manage resources, to reduce overall spending or
to reallocate funds to more important areas. ICTs provide a platform for task processing, payment process, and hierarchy of service outlets such as payroll, procurement, and human resource management to operate and achieve efficiencies (OECD, 2003). Furthermore, the continuous introduction of online services is increasing efficiencies as a result of better data sharing within government organization and between government and citizens. The introductions of ‘once-only’ service which allow for data re-use also increase efficiencies by limiting the need for a citizen to provide data multiple times to the government.

2.7.2 Better Service Delivery

Providing better government services is the goal of E-government, however giving the focus on online service issues and targets one might think that this is the only objective of E-government. Over the years it has played a vital role in increasing public interest in E-government. This sort of target has played a role in pushing the public administration to assess the potential of ICT and applying them to the status-quo (Prins, 2001). So many policies on service delivery have been established by government around the world, to improve the state of services to citizens. The most common strategy is the adoption of ‘customer focus’ with the objective of providing services that are designed to cater for citizen needs rather than the organization structure. This ‘customer focus’ strategy has been a catalyst for a wider public management reform and accepted the application of the internet to be a service delivery instrument. The development of ‘once-only’ service, one-stop offices, and the whole of government, have brought together information and services from different governmental organizations and agencies (OECD, 2003). According to Halchin (2004), E-government provides an easy way for citizens to access information from the government, increase access to government, and reduce red-taping caused by bureaucracy. These characteristics accentuate that E-government can provide better service delivery.

2.7.3 Accountability and transparency

So many researchers have agreed to the belief that can increase accountability and transparency of decision-making process, and better services to the citizens (Jaeger, 2003). Nevertheless, that accountability and transparency in public management have proven to be very tricky to measure. However, E-government provides a way by which government can be answerable to the public. As information is available continuously to the citizens, transparency is expected to increase, and citizens can monitor government performance
concerning both achievement and failure closely. The interaction functions of the E-government are also viewed to boost government accountability as it forces the government to be more responsive to demands of citizens (Carter & Balenger, 2005). It shows that a more transparent government provide all the necessary information needed by the citizens to monitor the performance of government agencies, which is one of the main elements offered by E-government. Ndou (2004), support the idea and believe that it also boosts citizen participation in decision making through online forum and communities. Consultation and participation concerning available information can result in policies that can better solve constituent needs and problems which will increase trust and better support for public institutions. The government is always developing web-based applications that will serve these areas.

According to OECD (2003), it strengthens trust between government and citizens which is fundamental to achieving good governance and in return reaching a broader economic milestone. With the relationship involving so many factors, ICT can act as a pathway for citizens’ participation in the policy process, enable open and accountable government, and fight against corruption. Therefore, access to information which will influence participation and consultation can have an impact on good governance, making governments not only to tolerate scrutiny from the public but to continuously facilitate it through various processes (OECD, 2003).

2.8 Conclusion
The primary expectation of E-government in the public sector is to enhance service quality and citizen satisfaction. Providing efficient and effective services to citizens, through better communications and feedback, also access to online information. As stated by fang (2002), the leading idea of E-government is to provide information to people and government departments efficiently. Different stages have been identified in the evolution of E-government services around the world, starting from emerging presence, enhanced presence, interactive presence, transactional presence and networked presence. The idea of E-government services is to bring citizens and businesses closer to their government. However, according to the concept mentioned above, E-government services emerged in different dimensions. These dimensions have helped the transition and development of E-government completely. These dimensions include G2C, G2B, G2E, and G2G.
Electronic government is importantly linked to the information society and the benefits associated with it. With the advance information systems, people don’t need to leave the comfort of their home to receive or exchange information or exchange goods and services. Information can easily be transferred over networks linking people, and different geographical locations together. Public management reforms have been the vision of countries around the world with the primary goal of performance improvement. In both developing and developed countries ICT has been the vital element for reform. E-government benefits include productivity increase, better service delivery, efficiency gain and cost reduction through the elimination of the traditional manual system. E-government if implemented the right way will provide a new face to the public administration.
CHAPTER THREE: METHODOLOGY

3.1 Introduction
This chapter explains the perspective of the research methods used for the thesis. The primary focus of the research is to identify the transformational impact of E-government on public administration and service delivery using Nigeria as a case study. For the research, questions were formulated by reviewing the various literature to determine the best methods of E-government and its successful applications.

The research method was chosen in the context of research design and research questions whose aim is to contribute to achieving the research goal. Based on the nature of the research a qualitative research method was used to guide this research work, and to explore the experiences of E-government integration in Nigeria. A standard cost model, which is the focal point for analysis, would be discussed. It is a model used for calculating administrative burden reduction using a quantifiable data. It is the criterion chosen to measure the impact of E-government on public service reform.

Survey of best practices will also be explained, which would be used to analyze the factors that are affecting E-government development in Nigeria. Analysis of available literature will allow the author to draw a comparison with best practices to understand why Nigeria is slacking behind. The researcher will then explain the sources of data, which are mainly secondary data from documents review and analysis. These are results and findings carried out earlier by other researchers.

3.2 Qualitative Research Method
This research was conducted using qualitative research method. The aim is to understand the occurrence within the ideology to develop rich revelatory insights. It is useful for understanding realities, the building of theory and capturing everyday life. Scholars have explained qualitative analysis to be subjective because it highlights experiences, descriptions, and meanings. Moreover, the strategy of the research usually is not structured and open, because it allows verification of findings to check validity (Gaillers, 1992). Data collection process involves interaction between researchers and participants, but secondary data could also be used as adopted by the author. Furthermore, this data could also be analyzed by using or combining any of the descriptive, exploratory and predictive methods. This particular
reason explains why the researcher needs analytical skills to understand the importance of available data and how they can be manipulated to an advantage (Creswell, 1994).

The phenomenon of the relationship between E-government and public administration is not new, but there is little research information available on its impact on public service reform. Therefore the author had to rely on the review of existing literature to choose the most befitting method for the research. From the kind of data needed and the primary focus of the study, a qualitative approach was chosen. It would allow the examination of full context and offer more flexibility, because even though it is qualitative but it still requires the use of some quantifiable data (Patton, 1990). So many researchers have always believed that there is no best methodology and solution, but series trials and compromises (Patton, 1990). The author gives a summary of the reasons for going with the qualitative approach:

- As the concept of E-government is still pretty new to developing countries like Nigeria, few empirical research materials are available on E-government with regards to its impact on public service delivery. So the qualitative approach would give a more detailed explanation of E-government development ability, which allows creativity which will generate new theories and arguments.
- The research is a case study type of research that is a genuine qualitative, which focuses on E-government transformational ability in Nigeria. Also, the data source is secondary data from other researchers found.
- Testing to confirm or reject hypothesis is one of the aims of the qualitative research, hence the rationale behind this thesis is to identify if E-government can transform the public administration to be more efficient and cost-effective.

Based on the above facts and some advantages of the method, together with expert’s inquiries, the author believes that this particular method is the most appropriate for the research.

3.3 Case Study Method

The case study has often been categorized under the qualitative research methods; it can also be quantitative or the combination of both. The basis of qualitative research is interrelated to the characteristics of case studies, so the nature of case study is more of qualitative than quantitative (Gerring, 2014). A case study is another type of accepted research method for conducting research. There is no general definition of the case study because many
researchers are continuously making an effort to clarify the concept of the case study, but often making it more confusing. Description of the case study is necessary because it gives more clarity, which can be vital to the type of research method (Starman, 2013). According to Simons (2009), “case study is an in-depth exploration of numerous perspectives of the difficulty and uniqueness of a specific project, policy, institution, program or system in real life.” So many researchers have argued that case studies shouldn’t be seen as a method itself; instead, it is a design format that may accommodate other methods. Starman (2013), Stated that case study shouldn’t be a methodological choice, but a sample of what is to be analyzed, by a given method.

The author adopted a single case study method because it allows rich analysis of the phenomena. It also presents the author with the ability to observe E-government impact overtime over a period to study its development trend and adaptation. Another reason for choosing this method is based on the context of the research which involves a multidisciplinary field that has to do with public administration and ICT. The research phenomenon is interpretive, as it provides an understanding of the E-government context the process by which it transforms public administration.

For this research, the author adopted case study of Corporate Affairs Commission, which is a governmental organization in Nigeria responsible for registering and issuing of business license in Nigeria. Since the research purpose is to identify and analyze the impact of E-government to public service reform, ABR was selected as the criterion to determine the E-government impact, by calculating the level of ABR using the SCM before the implementation of a new system and after the implementation of the system. Existing secondary data would be reviewed, and base on the analysis the researcher will determine whether a conclusion could be drawn, that will answer the research question. The nature of the selected case study alongside limited resources and time won’t allow the author to conduct multiple or more case studies.

3.4 Standard Cost Model

Citizens are subject to a range of regulation obligation when starting a new business. These regulations often increase the business expenses which could have been evaded. It is therefore essential to regulate the business efficiently to provide another cost-effective alternative. The standard cost model is the standard method for measuring administrative cost (Charite, 2004). It provides a strategic way to measure administrative burden imposed on
businesses, making it possible to record the rate of administrative burden. The standard cost model was developed to provide a simple and accurate method to calculate the administrative cost imposed on business by government. It uses a realistic style to measure and generates results in a given policy area. It breaks down policy regulation into smaller categories that can be measured. Thus it does not focus on policy goals and impact to see if it is working or not, but instead, it focuses only on the administrative procedures that must be performed to comply with the regulation.

Standard cost model works based on information obligation that is part of the regulation. Information obligation is a requirement to provide information and data to a government organization. Information obligation consists of information that must be provided and the administrative activities through which the data will be provided. The standard cost model estimates the cost of completing such activities which could be done internally by the owners of the business or be outsourced externally. Below is a description of all the necessary variables that would be used in the SCM, to estimate AB by the author.

- **Cost of Administrative Action**
  - Tariff: this is divided into parts, an internal tariff which is the hourly wage rate of the employee who deals with information obligation and external tariff which is the hourly wage rate of a person that is outsourced to perform administrative and procedural tasks. It will allow business oblige with legislation, for example, legal workers, financial advisers, and auditors.
  - Time: this variable is the amount of time that is spent to perform any activities required by legislation. Time is being calculated in hours.

- **Number of times required to perform activities per year**
  - Number of business: These are the number of businesses that must oblige to the regulation.
  - Frequency: this is the number of times that a business is required to provide information or procedures to abide by government regulation.

The combination of these variables gives the basic standard cost model formula:

\[
\text{Cost of administrative action (P)} = \text{Tariff} \times \text{time}
\]

\[
\text{Number of times required to perform activities per year (Q)} = \text{Number of businesses} \times \text{frequency}
\]
Therefore SCM formula (Cost per administrative activity) = P x Q

*Source:* (*Better regulation executive, 2005*).

### 3.5 E-government Solutions

The focus of point of this research is about E-government, electronic solutions are made available for business to perform their information obligations conveniently. Businesses can perform all the required administrative activities electronically which supports direct entry of data to government organizations. Such E-government solutions are designed in a way that they are faster and more convenient than the manual method. The main reason for calculating the AB is to observe the level of impact that E-government have to service delivery and public administration in general. Therefore the author will perform a before and after comparison of the manual method of performing administrative activities with the newly adopted electronic solutions. The effect of the electronic solution may be observed when there is a positive difference regarding the time consumption of the electronic initiative to that of the manual method.

### 3.6 Data Collection Method

Data collection is a vital part of qualitative research, as it requires the procedure for collection and estimating information on variables that are going to be used systematically. It will allow the researcher to answer the research question, evaluate outcomes and make a conclusion. So many researchers believe that data collection would do a case study research to be more accurate, increasing reliability since incorrect data can affect the results of a research which can lead to invalid conclusions (*Bachman & Schutt, 2008*).

As the author is in different geographical location as the target country, the research is limited to only secondary data, because it is difficult for the author to perform interviews with the relevant businesses and authorities while in another country which is financially challenging. Therefore the author adapted the secondary data collection method, which can provide a cost-effective way of acquiring a more understanding of the research questions. Secondary data collection is also described as “second-hand’ data; It is the collection and analysis of data or information that was collected and used by a different researcher (*Bachman & Schutt, 2008*). The author will use data from official statistics from Nigeria and information from Corporate Affairs Commision and data from World Bank ease of doing business reports would be used to acquire all the necessary variables needed for the research analysis. Also quantified
variables from expert assessment would be used, by analyzing the work of specialist with knowledge about the field that is being researched.

3.7 Conclusion
A qualitative case study research methodology was used to find suitable and valid answers to the research question. It was backed up with close analysis of related literature. The author provides and explains evidence that justifies the choice of the research method. Also, the various research techniques and models used were discussed in this chapter.
CHAPTER FOUR: ANALYSIS

4.1 Introduction
The author will describe the research data that was used to validate and test the hypothesis in this chapter. The chapter will also explain the findings of the study conducted, with Nigeria as a case study to check the impact of E-government in the country. The chapter will also discuss the results obtained using the standard cost model to analyze and make a conclusion regarding the research hypothesis. The methodology was used to determine the significance of E-government solutions to public management reforms, using Administrative burden as a measuring criterion. For the author to understand the aim of the research, this chapter will prove the critical argument that was raised in the literature review.

The author highlights the overview of this chapter as follows: Introduction which briefly introduced the content of the chapter followed the description of the hypothesis and variables. The author will then discuss the measuring process and calculation. Result and findings will then be discussed followed by conclusions.

4.2 Research Question 1
Analysis and result of the research will rely on the primary hypothesis:

Hypothesis 1: E-government does have a transformational impact on public administration.
The research argues that the implementation of E-government solutions in Nigeria has modernized its public administration, with the view of better services delivery, efficiency, and cost-effectiveness. The hypothesis is to be proven if E-government has managed to reduce the level of Administrative burden on business; the hypothesis is to be disproven if E-government didn’t reduce the level of administrative burden on business. The following variables were used to obtain the result of the research:

- The time required performing each administrative action.
  - Name reservation
  - Document preparation
  - Company registration
  - Tax registration
- The average hourly wage of the business official.
- An average number of businesses registered per year.
- Frequency (number of times that the businesses have to oblige with the regulation.

### 4.2.1 Measuring Administrative Burden

The author concentrated on information obligations on business because the reduction in administrative burden cost can directly lead to more investment which overall can enhance economic growth of the country. Secondary data collection was used to acquire the time spent to comply with government regulations, and the primary source was World Bank Ease of Doing Business report from 2014-2018. Also, data were cheaply obtained through expert assessments, and from the organization handling business registration and start-ups in Nigeria.

A measurement was conducted to measure the level of AB on businesses. This measure was conducted in two parts the first part was conducted based on the manual company registration process, while the second measurement was conducted based on the electronic company registration. The dissimilarity between the first measurement and the second measurement will provide the relationship between E-government services and AB, which in particular will determine the answer to the research question.

- Manual company registration: According to the World Bank ease of doing business reports, before 2016 a company registration takes up to 35 days before being completed. According to the regulation it is mandatory to obtain a business license before a company can operate in the country. The average hourly wage was also obtained, and all of these variables were applied to the SCM to calculate the level of AB on businesses.

- Electronic company registration: Also the World Bank ease of doing business report was used to obtain the duration of business registration in Nigeria after the integration of ICT services to the process. From 2016 it takes only ten days to get a business license in Nigeria. According to World Bank, the recent improvement was all due to the reforms took by the Nigerian government, which led to the introduction of electronic solutions in the country. Also, the average hourly wage was used to calculate the level of AB on business.

The comparison of the manual and electronic method was conducted. Administrative burden cost was compared, and the differences determine the significance of E-government to AB and public administration in general. Also the average number of business registration every
year was compared which will determine the level of efficiency gain or loss. According to World Bank (2018), an efficient and convenient method of business registration will increase the number of companies aiming to acquire a business license in the country. However it is not solely determined by the availability of electronic medium, but can also be influenced by other policies and regulations that are designed to provide a suitable business environment that is competitive and will allow business to prosper and contribute to the economic growth of the country (World Bank, 2018)

4.2.2 Results Analysis

The following section provides the quantification of the model variables and subsequently the result obtained from the application of the standard cost model. It also provided a comparison between the manual registration and the electronic registration which will in return allow the author to prove the hypothesis.

Table 4.1

SCM results without E-government initiative

<table>
<thead>
<tr>
<th>Manual Business Registration</th>
<th>Time (Days)</th>
<th>Tariff ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrative Action</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Name Reservation</td>
<td>7</td>
<td>9.2</td>
</tr>
<tr>
<td>Document Preparation</td>
<td>4</td>
<td>9.2</td>
</tr>
<tr>
<td>Company Registration</td>
<td>21</td>
<td>9.2</td>
</tr>
<tr>
<td>Tax Registration</td>
<td>3</td>
<td>9.2</td>
</tr>
<tr>
<td>Total</td>
<td>35</td>
<td>36.8</td>
</tr>
<tr>
<td>Cost of Administrative Action($)</td>
<td>1288</td>
<td></td>
</tr>
<tr>
<td>Frequency</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Average No of Business registration per year</td>
<td>70441</td>
<td></td>
</tr>
<tr>
<td>Cost of Administrative Burden ($)</td>
<td>90728008</td>
<td></td>
</tr>
</tbody>
</table>

SCM results without E-government initiative (Variables source: CAC, 2017, World Bank, 2018b)

Table 4.1 provides the result of the cost of administrative burden using the manual system. As shown in the table 35 days is required for business registration, divide into a series of administrative actions, ranging from name reservation, document preparation, manual
registration and tax registration. Also, a tariff of $9.2 was used as the average hourly wage rate in Nigeria. Using the standard cost model formula described in chapter 3 administrative burden cost on business was calculated, by multiplying the cost of administrative action, frequency and number of registration per year. As recorded in the table the cost of administrative burden is $90,728,008, so it is safe to say that companies suffer this particular administrative burden cost when registering their businesses in Nigeria using the manual system.

Table 4.2

SCM result with E-government initiative

<table>
<thead>
<tr>
<th>Administrative Business registration</th>
<th>Time (Days)</th>
<th>Tariff ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name Reservation</td>
<td>2</td>
<td>9.2</td>
</tr>
<tr>
<td>Document Preparation</td>
<td>4</td>
<td>9.2</td>
</tr>
<tr>
<td>Company Registration</td>
<td>3</td>
<td>9.2</td>
</tr>
<tr>
<td>Tax Registration</td>
<td>1</td>
<td>9.2</td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
<td>36.8</td>
</tr>
</tbody>
</table>

Cost of Administrative Action($) 368
Frequency 1
Average No of Business registration per year 90,600

Cost of Administrative Burden ($) 33340800

*SCM result with E-government initiative (variables source: CAC, 2017, World Bank, 2018b)*

Table 4.2 provides the result of the cost of administrative burden using the Electronic system. As shown in the table 10 days is required for business registration, divide into a series of administrative actions, ranging from name reservation, document preparation, manual registration and tax registration. Also, a tariff of $9.2 was used as the average hourly wage rate in Nigeria. Using the standard cost model formula described in chapter 3 administrative burden cost on business was calculated, by multiplying the cost of administrative action, frequency and number of registration per year. As seen from the table the cost of administrative burden is $33,340,800, so it is safe to say that companies suffer this particular
administrative burden cost when registering their businesses in Nigeria using the electronic services.

By comparing the results of the electronic system and the manual system, it could be seen clearly that the manual business registration has a higher cost of administrative burden ($90,728,008) compared to the electronic system ($33,340,800) with a significant difference of $57,387,208. In fact, the cost of administrative burden in the manual system tripled that of the electronic method; this shows a very significant difference between the manual method and the electronic method. So from the result, it could be concluded that the manual registration process causes higher administrative burden than the automated process.

Furthermore, the average number of companies registered after the implementation of the electronic system is higher than during the manual system. By comparing the duration of both manual and electronic method, which is 35 days for the manual registration and ten days for the electronic registration, the duration required to register one company using the manual system can be used to register three companies using the electronic registration method. Therefore, reducing the registration period increases the number of registration per year. The implementation of E-government solutions provides efficiency gain to both the businesses and the government. Conclusively E-government has a significant influence in ABR; if adapted successfully it can reduce AB resulting from government regulations and obligations. The author will now use this result to make conclusions about the research hypothesis, which states that E-government has a transformational impact on public administration. The next section will discuss hypothesis, using the findings and results from above.

4.3 Sub-research Question

As argued by many researchers, it is believed that there are so many factors affecting the development of E-government, especially in the developing world. The analysis of such problems will rely on the second hypothesis, proven this hypothesis will answer the second research question of this research. The second hypothesis is as follows:

**Hypothesis 2:** The development and transformational impact of E-government are being affected by other factors in Nigeria.

In order address the hypothesis, the author will draw a comparison between Nigeria and Cape Verde. The author will compare the level of development of each country and the reasons
behind such development or underdevelopment. Cape Verde was chosen because it is better-ranked than Nigeria, and has a similar cultural background than Nigeria.

4.3.1 Comparing Nigeria with Cape Verde

The author provides a brief description of the two countries in table 4.3, showing the region, sub-region and income level/value of each country.

Table 4.3
Countries Background information

<table>
<thead>
<tr>
<th>country</th>
<th>region</th>
<th>sub-region</th>
<th>income (value)</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cape Verde</td>
<td>Africa</td>
<td>west-Africa</td>
<td>lower middle income (GNI $3,830)</td>
<td>159.707,780</td>
</tr>
<tr>
<td>Nigeria</td>
<td>Africa</td>
<td>west-Africa</td>
<td>lower middle income (GNI $1,440)</td>
<td>487,601</td>
</tr>
</tbody>
</table>

(Source: www.worldbank.org)

As shown in Table 4.3, both countries are part of the west-African region; Cape Verde has an income per capita of $3,830, while Nigeria has $1,440 income per capita. There is a massive difference between Cape Verde and Nigeria on income per capita, but the reason behind this vast difference is as a result of the population gap between the two countries and population is one of the two criteria used in calculating income per capita of each country.

Table 4.4
Comparison of EGDI between Nigeria and Cape Verde

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cape Verde</td>
<td>127</td>
<td>103</td>
<td>24</td>
<td>0.4742</td>
<td>0.4565</td>
<td>0.3629</td>
<td>0.6031</td>
</tr>
<tr>
<td>Nigeria</td>
<td>141</td>
<td>143</td>
<td>-2</td>
<td>0.3291</td>
<td>0.413</td>
<td>0.1958</td>
<td>0.3784</td>
</tr>
</tbody>
</table>

(Source: United Nations EGDI report, 2016)

Table 4.4 describes the E-government development index of each country and also their rankings for the year 2014 and 2016. In 2014 Cape Verde was ranked 127th in the world while Nigeria was ranked 141st in the world. In the year 2016 which is the most current ranking, Cape Verde was ranked 103rd in the world moving twenty-four places which is a considerable achievement within the space of two years. In the same year, Nigeria was ranked 143rd, moving two places downwards. The lack of progress is considered to be a
failure. The author compared the OSI, TII, and HCI of the two countries, and realized that there are so many differences regarding OSI, but there is a huge difference when it comes to TII and HCI. In both TII and HCI Cape Verde’s points are almost as double as Nigeria’s points. The author will analyze and examine the reasons behind such huge differences and gaps between Cape Verde and Nigeria with regards to E-government development and adaptation.

Table 4.5

Comparison of Information Society

<table>
<thead>
<tr>
<th>IDI 2017 Rank</th>
<th>Nigeria (143rd)</th>
<th>Cape Verde (93rd)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDI Value 2017</td>
<td>2.60</td>
<td>4.92</td>
</tr>
<tr>
<td><strong>IDI ACCESS SUB-INDEX</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fixed-telephone subscriptions per 100 inhabitant</td>
<td>0.08</td>
<td>11.65</td>
</tr>
<tr>
<td>Mobile-cellular telephone subscriptions per 100 inhabitant</td>
<td>81.82</td>
<td>122.02</td>
</tr>
<tr>
<td><strong>International internet bandwidth per internet user (Bt/s)</strong></td>
<td>11256.53</td>
<td>23356.75</td>
</tr>
<tr>
<td>Percentage of households with a computer</td>
<td>10.56</td>
<td>37.39</td>
</tr>
<tr>
<td>Percentage of households with internet access</td>
<td>15.23</td>
<td>62.00</td>
</tr>
<tr>
<td><strong>IDI USE SUB-INDEX</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage of individuals using the internet</td>
<td>25.67</td>
<td>48.17</td>
</tr>
<tr>
<td>Fixed-broadband subscriptions per 100 inhabitants</td>
<td>0.01</td>
<td>3.03</td>
</tr>
<tr>
<td>Active mobile-broadband subscriptions per 100 inhabitants</td>
<td>21.08</td>
<td>70.01</td>
</tr>
<tr>
<td><strong>IDI SKILLS SUB-INDEX</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean years of schooling</td>
<td>6.00</td>
<td>4.80</td>
</tr>
<tr>
<td>Secondary gross enrolment ratio</td>
<td>55.70</td>
<td>92.90</td>
</tr>
<tr>
<td>Tertiary gross enrolment ratio</td>
<td>10.07</td>
<td>21.71</td>
</tr>
</tbody>
</table>

(Source: ITU information society development index, 2017)

Table 4.5 illustrates the differences in the level of information society between Nigeria and Cape Verde. As shown in Table 4.5, Nigeria is ranked 143rd in the world regarding information society development, with a value of 2.6 while Cape Verde is ranked 93rd with a value of 4.92. Under the sub-indexes that made up IDI index, Cape Verde has a better value than Nigeria in all of the sub-indexes. This difference conclusively explains the vast gap between Nigeria and Cape Verde with regards to the information society. As the author discussed in the literature review, information society is an essential aspect of E-government, because E-government structures cannot be defined without telecommunication networks and motivated end users.
4.3.2 Analysis of the Gap between Nigeria and Cape Verde

The author will try to prove the sub-hypothesis in this section. The evidence shown in the previous sections with regards to E-government development between Nigeria and Cape Verde, which shows much differences with Cape Verde progressing amazingly and Nigeria failing to progress and going backward on EGDI ranking. Therefore to highlight the reasons behind such downward trend in Nigeria, some related sources of information about the factors affecting the progress in Nigeria and the reasons behind the success story in Cape Verde were reviewed. These factors are being categorized below.

4.3.2.1 Lack of Political Commitment

To achieve public service reform political, leadership, government support and regulatory ideas are vital in various tiers of government. Political leaders must understand the impact of E-government and its goals to achieve success (Scott, 2001). Cape Verde has one of the best E-government models; the model is far better than countries that have far better resources than Cape Verde. According to UN (2016), the reason behind such success is credited to the strong political will and vision to make information and services online. The government of Cape Verde made it a national priority to put E-government as one of the most critical required achievements. Through the information society strategic program, Cape Verde made E-government as one of the elements of information society development in the country (UNDP, 2012).

Nigeria on the other hand, political leaders still do not understand the impact of E-government and also the relationship between E-government and better governance (Olufemi, 2012). According to Adeyemo (2011), one of the basic set back of E-government adaptation and development in Nigeria is the lack of committed leadership with the ability execute the already documented visions, and also to approve the necessary resources needed for E-government development in Nigeria. Leaders with the political will and vision are needed to establish the process of public management reforms, with E-government as the main catalyst. Without committed leadership, resources that will ensure the sustainability of E-government project won’t be available, so the importance of committed leaders cannot be overemphasized (OECD 2003). Therefore, this is the crucial factor affecting E-government implementation in Nigeria.
4.3.2.2 Poor Knowledge and ICT Skills
Lack of knowledge and skills is one of the factors affecting the success of E-government in Nigeria. ICT knowledge and skills are fundamental to operate ICT tools that form the E-government, which is why human capital is one of the three criteria for measuring E-government development. However Nigeria is making progress in the area of ICT skills, but there is still much to be done. The younger generation is more exposed to ICT tools; overall the level of awareness among citizens is shallow. Cape Verde’s information society strategic program has improved the level of knowledge and skills in the country, making it possible for citizens to be able to operate ICT tools. As illustrated in table 4.5, Cape Verde has a better secondary gross enrolment ratio than Nigeria. Also, the tertiary gross enrolment ratio is far better than Nigeria’s. These indexes make up the IDI skills sub-index, which explains the huge difference between Nigeria and Cape Verde under the human-capital index. Also, the citizens in Cape Verde are familiar with online government services than Nigerians because so many activities are conducted online; ‘Maison du Citoyen’ is a government portal with a multidimensional initiative which offers different types administrative services to the citizens. All the information and services needed by the citizens are grouped on the same website, which is very efficient (UNDP, 2012). In Nigeria such type of initiative is not available, in fact, only a few services are being offered online, and in most cases, citizens prefer to go and access these services manually because they lack the abilities and knowledge to accomplish such activities (Amagoh, 2015).

4.3.2.3 Inadequate ICT Infrastructure
ICT infrastructure and tools are an essential component of E-government. According to the ITU (2017), which is illustrated in Table, 4.5 Cape Verde have a better percentage of household with computers, households with the internet, individuals using the internet, broadband subscription and mobile phone subscription than Nigeria. These elements make up the information society. These differences can be as a result of the initiative taken by the Cape Verde government on ICT development. For example, there was a strong intention to improve internet access in the country, and the government established centers where citizens can come with their computers and access the internet for free (UNDP, 2012). The infrastructure requirement for E-government development in Nigeria is still poor. However, the emergence of telecommunication companies has increases accessibility to internet, but there is still so much to be done. Internet usage in Nigeria is still costly for the majority of the
citizens. Without cost reduction, so many people will still not be able to access and benefit from E-government services (Olufemi, 2012).

4.3.2.4 Unreliable Electricity
According to Amagoh (2015), lack of constant electricity supply is the major barrier affecting the use of internet and the adoption of E-government in Nigeria. So many researchers have agreed that lack of electricity is the biggest challenge of E-government in the country. Many parts of the country are yet to have electricity while electricity in other parts is not constant. Moreover, it doesn’t make any sense to have E-government initiatives, while the citizens who are the target group to benefit from such development cannot achieve that as a result of unreliable electricity. According to World Bank group, Nigeria electricity consumptions is one of the lowest in Africa. Comparing Cape Verde to Nigeria, 90.2% of the population have access to electricity while 57.7% of the population has access to electricity in Nigeria (World Bank, 2018). These statistics, in particular, explain the huge differences regarding E-government development in both countries. It is challenging for E-government to succeed in Nigeria without electricity as electricity is powering the majority of the ICT tools.

4.3.2.5 Bureaucratic Resistance
Bureaucrats are the main weakness of E-government in Nigeria. Most of the civil servants are resistant to change including the top management. They are afraid that the availability of online services will take over their duties making them redundant, while others are afraid that government will replace them with online services which will make them unemployed (Amagoh, 2015). Even those that embraced digitalization, the lack of basic ICT skills and knowledge affects E-government activities. Therefore E-government cannot be achieved unless public managers accept the reality and embrace it with open arms (OECD, 2013).

4.4 Findings and Discussions
As discussed earlier, AB was used as criteria to measure the impact of E-government on public administration. As a result, shown in the previous section, E-government has a significant influence on ABR, which is very positive; World Bank report can also support the author's findings. According to the report, Nigeria makes starting a business easier by introducing online start-to-finish process from 2016 and then introducing a new function that allows electronic stamping of registration documents in 2018 which makes the process faster and more convenient (World Bank, 2018). The introduction of these services made Nigeria to moves 25 places in the world ease of doing business index, now ranked 145th from previously
169th in 2017. Therefore notable reduction on AB has been achieved with regards to cost and time required to oblige with the government regulation on business start-up.

This research examining the transformational impact of E-government by examining the link between public administrative reform through E-government and AB, Using this result the author can prove that E-government can transform public administration. Therefore, the hypothesis would be accepted. Therefore, the author concludes that E-government can affect public service reform; however, transformation impact of E-government also requires rallying internal resources, especially human resources to provide changes through E-government services.

Also Based on the analysis of data the author was able to identify the factors affecting E-government development in Nigeria. The factors are listed as follows

- Lack of political will
- Poor knowledge and ICT skills
- Inadequate ICT infrastructure
- Unreliable electricity
- Bureaucratic resistance

With these findings, the author can prove the hypothesis, and conclude that there are factors affecting E-government development. These findings answer the sub-research question which asks; ‘what are the factors affecting the development and transformational impact of E-government? However for E-government to prosper, such barriers need to be eliminated entirely, as seen from the Nigerian case, instead of making progress, the country is going backward on the EGDI.

4.5 Conclusion

This chapter aim at analyzing the findings of the data collected and the result of the research. Secondary data was used, which was mostly collected from, UN reports, World Bank reports and reports from the Nigerian government and other experts in the field of E-government. this data was used in an attempt to answer the research questions.

The researcher presents the main research findings in Table 4.1 and Table 4.2 for better understanding and simplicity, by using the SCM to calculate the cost of an administrative burden when starting a business in Nigeria. In other to achieve the aim and objectives in view
with the research questions, the researcher was able to identify that E-government can successfully transform public management with regards to efficiency, convenience and cost reduction. Also based on the analysis and findings the author was able to identify factors that are affecting E-government development. In other to validate the findings the author draws a comparison between Cape Verde and Nigeria which has a better ranking than Nigeria, and of course, they are both West African countries. This comparison highlighted where and how Nigeria’s E-government initiative is failing.
CHAPTER FIVE: CONCLUSION AND RECOMMENDATION

5.1 Introduction

This chapter will provide a conclusion to this research, and highlight the pertinent areas the thesis covered. Public administrators have within the last decade realized that ICT is a valuable tool that can help the government to achieve their aims and objectives, (Oni et al. 2016). Government around the world have continued to embrace and implement ICT in the public sector because it is clear that ICT is a handy tool that can enable public institutions to change. From routine-based, command and control organization that is focused on Administration to knowledge-based, networked, learning organization that is extremely focused on better services, Omeire (2014).

5.2 Summary

In so many countries, a significant amount of money has been sunk in developing E-government services., while other countries have failed to realize the importance of such initiative. Therefore the aim of the study is to investigate and prove that E-government is very important to governance and can quickly transform the interaction and transactions with the citizens. Also, the study investigated the reason why E-government is not developing in some countries like Nigeria. The research findings revealed that E-government could transform the public administration when implemented the right way. E-governance can facilitate coordination and cooperation between government organizations, which will decrease the duplication of services. When data are shared accordingly in a timely manner, a developing country like Nigeria will benefit from cost-effective activities.

As the author discussed in chapter two, so much hope has been placed on E-government to transform the public administration and boost the relationship between government and the citizens. According to UN (2016), E-governance creates an integrated framework containing e-services, e-administration, and e-society. Therefore the findings will facilitate a better understanding of E-government potentials to the Nigerian government and the E-government society in general. Also, the researchers discovered that there are specific factors affecting E-government development and adaptation, especially in developing countries. This factors which include, poor infrastructure, lack of political commitment, lack of knowledge and skills, public servants resistant to change and inadequate power supply can easily affect its potentials.
The author mentioned in the literature review, the primary objective of E-government revolves around the adaptation of information and communication technology. UN (2016) shows that there are differences in E-government initiatives across different countries. These disparities are known as a result of the close examination of the three elements for measuring the level of adaptation of E-government services. These parameters include; Human capital development, online service delivery, and telecommunication infrastructure. Therefore, based on the United Nations global assessment, there are some prominent challenges that hindered the transformational impact and development of E-government in Nigeria.

5.3 Recommendations

Using these findings, the author believes that a country like Nigeria will benefit if only it critically analyzes its current state and then identify those areas that need improvement. This cannot be done without clear vision and goals that will turn the objectives into reality. The development of E-government requires strong leadership. Therefore leaders need a fundamental strategy that is benchmarked on best practices but can also be aligned by constant political and economic changes (Ifinedo, 2005). The government should improve ICT services, through the development of the entire necessary infrastructure that will boost E-government in the country. ICT education should be the right of every Nigerian, therefore mandatory at all levels. Since E-government has proved to be a vital part of the public administration, the government should provide an environment where its operation and maintenance is seen as part of the organizational culture. This can only be possible if the government provides funds, and infrastructure for maintenance among government divisions.

Also, the government should take the appropriate step to change the perception of a civil servant about E-government. Many consider this initiative to be a form competitor that is there to take away their jobs. So the government needs to provide assurance and continuous training on such innovations. Training leads to job satisfaction, which will allow the total benefit of E-government to be absorbed (Olufemi, 2012). The government should also take the necessary steps to influence system acceptance by the citizens. Implementing user-friendly services and security should be a considered during implementation of E-government services, creating an interface that is understandable, will influence the citizens to use such services. Security is one of the challenges facing such initiatives and digitalization; the citizens are always cautious about their personal data and information, so the government
needs to provide a platform that will protect unauthorized access to their personal data (Ifinedo, 2005).

Furthermore, the author mentioned in the literature review, that E-government in Nigeria is currently implemented in two dimensions, which are G2C and G2E. The government needs to initiate other dimensions, especially the G2G, which is very vital to achieving efficiency in governance. Researchers and experts have agreed that this dimension can increase cooperation and coordination within the public administration. Providing a centralized system that could be accessible to different agencies and the department will enhance service delivery. The government should also introduce the ‘once only’ strategy, which is a way of eliminating the administrative burden on citizens when they are asked to provide the same information several times. The author asserts that this could be done by allowing other government’s agencies that are providing services to the citizens to access the National Identity Management Database. The National Identity management contains all the first-hand information about citizens, including their fingerprints, and these are basic information required for different services, e.g., Driver’s license, international passport, and voters registration card. By technically linking those service providers with the National Identity Management database, it will drastically reduce the administrative burden on citizens, making it more comfortable, convenient and straightforward.

The Nigerian government should also implement the one-stop portal, making it mandatory for every ministry, agency and parastatal to have an active website that will provide timely information and services to people. This will give very rapid access to government services and all the necessary information needed by citizens and non-nationals from all over the world all from a single platform. As illustrated in Table 4.5, Nigeria has a very high percentage of mobile-telephone subscription. The author emphasizes that E-government diffusion in Nigeria could be better achieve through mobile applications because so many citizens have access to smartphone more than computers and fixed internet.

According to OECD (2011), mobile technologies can provide access to areas where the infrastructures needed for internet are not readily available and will require a very high sunk cost to develop. Therefore, the author believes that the development of more mobile applications will allow the government to reach out to so many people. Mobile applications will allow access to public services and information with limited time and from any geographical location. Also, mobile phones are cheap and ready to use, a citizen can easily
find phones that suit their preferences and budget, and can quickly empower the citizens to connect with the society and government.

Therefore, it is concluded by the researcher that this research extends the knowledge on the area of E-government and its transformational impact on public administration. It is believed that E-government if implemented the right, can transform public management towards better services delivery.
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