

UNIVERSITY OF EDUCATION, WINNEBA

**E-GOVERNANCE AND CITIZENS PATRONAGE IN THE EFFUTU
MUNICIPALITY**



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MUNICIPALITY**

ANDRWS NARTEY ADAMTEY



**A Thesis in the Department of
Political Science Education submitted to the School of
Graduate Studies, in partial fulfilment**

**of the requirements for the award of degree of
Master of Philosophy
(Political Science)
in the University of Education, Winneba**

MAY, 2022

DECLARATION

Student's Declaration

I, Andrews Nartey Adamtey, declare that this thesis, with the exception of quotations and references contained in published works which have all been identified and duly acknowledged, is entirely my own original work, and it has not been submitted, either in part or whole, for another degree elsewhere.

Signature.....

Date.....

Supervisor's Declaration

I hereby declare that the preparation and presentation of this work was supervised in accordance with the guidelines for supervision of Thesis Project as laid down by the University of Education, Winneba.

Name of Supervisor: EZEKIEL ATTUQUAYE CLOTTEY (Ph.D.)

Signature.....

Date.....



DEDICATION

This work is dedicated to Rev. Prophet Michael Nyame for being a father in my spiritual life.



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I am grateful to the Almighty God for keeping me alive and granting me the strength and knowledge to have this thesis completed. In making this a success, very important personalities added their quota in many diverse ways.

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LIST OF ABBREVIATIONS

ICT- Information Communication Technology

MDG's- Millenium Development Goals

SDG's- Sustainable Development Goals (SDG's).

UN- United Nations

MMDA's- Metropolitan Municipal District Assemblies

MA- Municipal Assembly

GWCL- Ghana Water Company Limited

ECG- Electricity Company of Ghana

NPM- New Public Management

GPRS - Ghana Poverty Reduction Strategy Paper

ICT4AD- Ghana ICT for Accelerated Development

GRA- Revenue Authority

DVLA- Driver Vehicle Licensing Authority

RAGD -Registrar and Accountants General Department

GIS- Ghana Immigration Service

IS- Information System

NPG- New Public Governance

UNESCO- The United Nations Education, Scientific, and Cultural Organization

G2G- Government to Government

G2C- Government to Citizen

G2B- Government to Business

RGD-Registrar General's Department

GRA- Ghana Revenue Authority

MFA-PO- Passport Office

NITA- National Information Technology Agency

NIA- National Identification Authority

MINCOM- Mineral's Commission

BDR- Births and Deaths Registry

GPS- Ghana Police Service

CID- Criminal Investigative Department

FDB- Food and Drugs Board

GTA- Ghana Tourist Authority

NCA- National Communications Authority

AMA- Accra Metropolitan Assembly

GEPP- Ghana E-Payment Portal

GIFMIS - Ghana Integrated Financial Management Information Systems

TAM- Technology Acceptance Model

PEOU- Perceived Ease of Use

PU- Perceived Usefulness

UTAUT- Unified Theory of Acceptance and Use of Technology

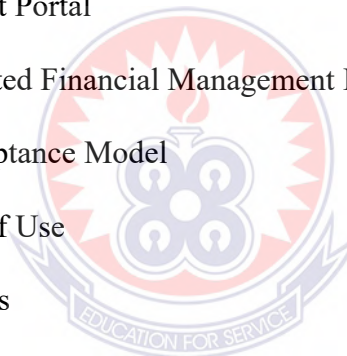
TRA- Theory of Reasoned Action

TPB- Theory of Planned Behaviour

IDT- Innovation Diffusion Theory

SCT- Social Cognitive Theory

EGDI- E-Government Development Index



ABSTRACT

Digitization in governance has led to great transformation in government agencies and institutions. Notably, these efforts are very important for the development of one's country and Ghana is of no exception. The introduction of electronic governance in Ghana, has attracted substantial debate and have served as a field of study for few studies. This incites the researcher's interest to investigate the level of patronage by citizens in the Effutu municipality in electronic governance. Conceptual model that guided the study was the Unified Theory of Acceptance and Use of Technology (UTAUT). The study used a concurrent mixed method research approach to gather data from respondents through interviews and questionnaires. Thematic and descriptive analysis was used as an approach for data analysis and discussion. The relevant literature and findings revealed that language was a problem in the use of e-government systems and applications. Respondents complained about instructions only being in english and if there could be a system where local dailect will be used. Moreso, there should be audio bites in local dialects that will direct users on procedures. Findings from the study also highlights the consciuos effort made by the Municipal Assembly to provide an electronic means to pay property rate. This was through a moblile money number. Officials from various offices believe education on egovernmnet procedures should be in a continuum. Hence it is recommended that there should be more sensitization for stakeholders and end users most especially. Studies have revealed that, governance will be more effective when controlled electronically, hence the need for its introduction.



CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The use of computers and the internet to send and receive information has come to stay and many governments across the globe have developed strategies to adopt such characteristics into their governmental process. As a surge in development, most developed and developing countries, are more concerned about the sustenance of such technology/ Information Communication Technology in the governmental systems which is of utmost importance. What is currently known as electronic-government and electronic-governance as used interchangeably has gained currency over the years. E-Governance is a broader topic that deals with the whole spectrum of the relationship and networks within the government regarding the usage and application of ICTs (Sheridan & Riley, 2006).

The World Bank has defined e-government as government-owned or operated systems of information and communications technologies (ICTs) that transform relations with citizens, the private sector, and/or other government agencies to promote citizen empowerment, improve service delivery, strengthen accountability, increase transparency, or improve government efficiency (The World Bank, 2002; Kraemer & King, 2003). E-governance is not just about the government website and e-mail; about service delivery over the Internet; or digital access to government information or electronic payments. E-governance is intended to change the way that citizens relate to governments, how citizens relate to each other, and how the governments relate to citizens (The World Bank, 2002).

States and local governments have accepted the adoption of information technology systems and the internet to engage citizens and to deliver services and information to support improved public government operations (Reddick & Frank, 2007; Torres et al 2005). The adoption of digital technologies in national governance creates the avenue for the implementation of “higher quality, cost-effective government services and a better relationship between citizens and government (Fang, 2002). The use of ICT in the governance process has the potential of being an enabler of citizen participation (e-participation) in governance, thereby contributing towards the good governance agenda. To a large extent, good governance helps to deepen the practice of democracy by making governance more transparent, accountable, responsive, effective and efficient, and above all more participatory (UNESCAP, 2003).

According to Botchway, Yeboah-Boateng, & Kwofie, (2016) digital age has brought about a paradigm shift of information and data processing all over the world and Ghana has had its fair share of this development. In the same vein, E-governance is one such system that has been initiated towards the improvement and effective management of the various assemblies. Hence making local governance more flexible to operate in terms of assessing information and the delivery of service. It is with this perspective that, most literature has focused on the capabilities and acceptance of e-government by countries in running the affairs (Torres, Pina, & Acerete, 2014).

E-governance, on the other hand, is concerned with the administration and management of a company, whether public or private, huge or little (Ojo, 2014). Moreover, it views the strategies and methods for arriving at using electronic systems to disseminate information and deliver service to customers or clients “Effective citizen participation involving ICTs - e-participation - refers to the use of ICT to improve participation among citizens, by facilitating contact between each person, as well with their elected

official” (PIWA & UNDP, 2009 p. 17). In the pursuit to achieve the Millenium Development Goals, it is important to integrate e-participation initiatives into government policies. Notably it is of one core important feature to have a governing system that operates e-government.

E-government on several occasions has been identified by scholars and policymakers as an effective means to improve public service, citizen engagement, and transparency and accountability of authorities at the local level. Less corruption, improved openness, greater convenience, income growth, and/or cost reductions are possible outcomes of e-government (Brimkulov & Baryktabasov, 2014) It is without a doubt that it continues to be a strong realm to strengthen resilience and sustainability and better align local government operations with national digital strategies (United Nations Department of Economic and Social Affairs, 2018). There has always been a continuous effort to revamp the existing ambiance of e-government tailored in support of Sustainable Development Goals (SDG’s).

Gradually, the traditional bureaucratic system of operation by the public sector is being invaded by a wired-up era which in turn promotes good governance. It restores “trust, including mobilizing citizens or end-users of public services, involving the private sector and civil society organizations in decision-making processes and including stakeholders of all levels of governments in service delivery, as well as developing strategies to facilitate reform implementation” (OECD, 2016 p. 22 cited in Dapaah, 2021) It is for this reason that the number of e-governance solutions has increased remarkably in recent years, providing the involved stakeholders with a wide array of e-services between, which have been classified as government-to-citizens (G2C), government-to-businesses (G2B), government-to-employees (G2E) and government-

to-government (G2G) services (Titah & Baki, 2006; Thomas, Mbarika, Nwogu, Musa, & Meso, 2009; Cortés-Cediel, Cantador, & Gil, 2017)

Citizens' participation or patronage has been of great interest to researchers, policy implementers, and stakeholders which serves as a form of feedback in the reformation and effective administering of public enterprises. Citizen involvement is described as a process in which ordinary citizens of a community exercise authority over decisions affecting the community's general affairs. Participation thus can take place through more effective client interaction with the decisional centers within the organizations. Furthermore, Ugarte (2014) asserts that eliminating colonial practices and not putting cultures in a hierarchy is the key to more inclusive public involvement strategies. The underlying problem is what methods will be appropriate for citizens to engage in decision making process. As a way of democratization, participation serves as wider and bigger conduit for its realization.

According to the United Nations, participation is a critical component of governance, which they describe as "the process of decision-making and the process by which choices are implemented (or not executed)." (Sheng, 2003 p 3). Again, Allen and Feldman (2000) write of the importance of the citizen-user's knowledge and moving away from seeing the architect or planner as the sole expert on decisions related to how a municipality should develop. Local government has an important role as the first point of contact for local services, information, and social goods, as well as the most accessible point for participatory democracy in the lives of poor and marginalized people. (Odendaal, 2003; Susheel, 2012)

According to Kpentey "when local government is participatory, it is increasingly responsive to and interactive with the community and also members of such locality

have a voice or a say in the administration and governance of that particular place” (Kpentey, 2019 p. 181).

E-government development is not only about implementing new IT system or application but also aim to improve public service delivery, improve access to information and increase government’s transparency and accountability (Carter & Bélanger, 2005). The adoption and use of e-government has the ability to enhance the relationship between the government and its citizens by facilitating easier, smoother, and more efficient interactions between citizens and government agencies (Lee, Tan, & Trimi, 2005). Participation creates a greater engagement which is expected to have positive impacts on good public governance; greater transparency and accountability (Chatfield & Alhujran, 2008).

Many years after the adoption and use of e-governance by African countries, and the growing demand for good governance, there is the need to investigate the patronage of e-government systems by citizens of African countries. Moving forward, studies as such will help in the redesigning of more e-government services to suit the taste and preference of citizens as well as help governments to be more efficient and effective. It is, therefore, worthwhile to investigate the level of patronage of citizens and stakeholders of government in the growth of e-governance as it is being piloted and expanded using various MMDA’s and other government agencies.

Similarly, the Government realized the need to participate in the race to become a digital society and the role of ICT in empowering the citizens in the year 2003. As a result, the government designed the Ghana ICT for Accelerated Development (ICT4AD) policy which was approved by parliament in 2004 (Agboh, 2017; Poku, 2017). It was based on the framework document: “An Integrated ICT-led Socio-

economic Development Policy and Plan Development Framework for Ghana”. According to the Policy document in 2003 the development of this policy was based on a nationwide consultative process involving all key stakeholders in the public sector, private sector, and civil society of Ghana (Ghana ICT4AD, 2003). Succinctly the operationalization of the use of ICT by all and sundry in the country to boost development.

1.2 Statement of Problem

The adoption of Information and Communication Technology by the private sector has greatly influenced consumer behavior (Layene & Lee, 2001). This is as a result of improvement in the effectiveness and efficiency of the service they deliver. It is arguably true that various countries especially developing ones are more concerned about the introduction of information communication technology in their governance process. Heeks, (2002), McClure, (2000) and Ngulube, (2007) are of the view that web-portals, serve as a medium where citizens and business organizations could complete transactions with government agencies and departments without necessarily walking to the specific physical allocation of the latter.

This notwithstanding, both public and private sector service providers have come to appreciate the crucial role of ICT in facilitating their work of providing excellent services to their stakeholders (Alhassan, 2020; Johnson, 2012). Ntulo and Otike, (2013) e-Government may enhance efficiency in the delivery of government services, simplify compliance with government rules, strengthen public participation and trust in government, and save money for citizens, businesses, and the government itself provided it is correctly designed and executed.

Ebrahim & Irani, (2005) further opines to the fact that e-government can be deployed to develop the strategic connections between public sector organizations and their departments and provide secure communication between the different government levels of operation (e.g., central, city, and local). Arguably, the wave of online governance, electronic or 'e-governance' can only be enabled through the introduction of ICT (Bricout & Baker, 2012).

The tendency to have an individual to participate or patronize has the greatest potential for impact at the local level of e-governance, as compared to larger regional, national, or transnational aggregations, making local e-governance a good unit of analysis for examining the participation enhancing qualities of ICT (Bricout & Baker, 2012). It is for this reason that, e-governance serves as a core element that links people to information and resources using social and communication networks. The introduction of the New Public Management (NPM) in 1980 has urged many states to adopt new ways of managing public enterprises as they compete with the private ones. It is of core importance that governments have to now collaborate with private institutions in running their states. Apparently, this is to remove bottlenecks of bad practices in the public sector and hence improve service delivery and access to information.

Similar to that is the concentration by the government for the improvement of the e-government system in Ghana has seen various policies adopted by the government which is some Information Communication Technology (ICT) Policies. The country's medium-term development plan captured in the Ghana Poverty Reduction Strategy Paper (GPRS I & II) and the Education Strategy Plan 2003-2015 all suggest and indicate the use of ICT as a means to reaching out to the poor and vulnerable in Ghana (Mensah, 2016). The e-Ghana project funded by the World Bank cannot be written off as it has

also sought to help the country in implementing its agenda for ICT-led growth. This alarmed for studies to be conducted on institutions that were under the project and these included agencies like Ghana Revenue Authority (GRA), Driver Vehicle Licensing Authority (DVLA), Registrar and Accountants General Department (RAGD), and Ghana Immigration Service (GIS) (Nsiah, 2014; Amegavi, 2015; Mathapoly-Cudjoe, 2015; Nuhu, 2015; Osei-Kojo, 2016). Interestingly, some other agencies have also transitioned into the e-government realm and there is a need for studies to be conducted to unravel the strategies for adoption, and challenges in its implementation. Such new agencies include the Ghana Water Company Limited, Electricity Company of Ghana, and some regional passport offices of Ghana. The introduction of the electronic billing and payment system by the Ghana Water company Limited in 2017 to boost its operations has called for such a study to be conducted based on ascertaining the level of patronage on the part of citizens as it has been implemented across the country. This initiative is also to help address customer challenges and inconsistencies associated with the current manual system, as well as block leakages in revenue collection (Andoh & Mohammed, 2017).

Current studies on e-governance investigate the capabilities and readiness of government in the adoption and implementation of e-government strategies mostly at the national level (Lofstedt, 2005; Amegavi, 2015; Owusu, 2015; Poku, 2017). Again literature, however, has left significant gaps in the understanding of how to measure the outcomes of citizen participation programs and limited attention has been paid to the evaluation of citizen participation programs in local governments most especially in the Ghanaian context.

The novel Coronavirus pandemic made more states to improve upon the use of ICT to disseminate information as well as deliver service to its citizens. Reducing the number

of workers and working hours has become the new norm for various institutions. The acceptance of e-government strategies by local authorities (Metropolitan, Municipal, and District Assemblies) in Ghana has the potential of enhancing the inner workings of such institutions, as well as improving public service provision and delivery (Ohemeng & Ayee, 2016; Mensah, 2016; Poku, 2017). It is with such interest that this study seeks to unravel the level of participation and patronage of citizens with regards to the adoption of e-governance and the delivery of local services in the Effutu Municipality.

It is therefore also prudent to conduct a study in order to ascertain the progress made after the roll out on the e-billing and the e-payment system by the Ghana Water Company Limited and the Electricity Company of Ghana as well as any e-government services used by the municipal assembly.

Besides, the rapid growth of e-governance across the globe and Ghana as a whole, calls for studies on participation to be conducted. To add, a holistic approach of a mixed-method will also be used to ascertain the level of participation of citizens, unlike previous findings that only focused on a qualitative approach. It is against this background that this thesis ascertains, describes, and explores the level of participation of citizens in e-governance, most especially in the MMDA's in Ghana, using the Effutu Municipality as the study area.

The study employed a mixed method approach to investigate the level of patronage using both interview guides and questionnaires to obtain data from respondents. Officials from the various agencies selected (MA, GWCL and ECG) were interviewed using a semi structured interview guide whiles indigenes had questionnaires to answer. Sampled participants for the survey from the Yamane's sample size formulae was 398. Simple random sampling and purposive sampling were techniques used and data

obtained were statistically and thematically discussed and represented. These included tables, charts and graphs.

1.3 Research Questions

To appreciate and to answer this central problem, the following questions are raised by the study:

1. What is the level of patronage in e-governance by citizens in the Effutu Municipality?
2. What are the benefits of e-governance implementation in the Effutu Municipality?
3. What are the challenges associated with e-governance implementation in the Effutu Municipality?

1.4 Objectives of the Study

1. Explore the level of patronage of e-governance by citizens in Effutu Municipality.
2. Assess the benefits associated with the implementation of e-governance in the Effutu Municipality.
3. Explore the challenges of the implementation of e-governance in the Effutu Municipality.

1.5 Significance of the Study

Citizen participation or patronage is one core area in governance that researchers have bid to create awareness for individuals to take part in governmental processes. With the introduction of e-governance in the public sector and the deployment to various MMDA's in Ghana, few studies have been conducted to ascertain the level of patronage of citizens in e-governance and most especially at the local level. The growing

discourse on e-government has called for many researchers to conduct studies to appreciate the use of ICT's by local authorities and citizens.

E-governance being an area of interest to varied scholars in the field of Public Administration, this study contributes to the literature in response to the need for researchers to appreciate the application and use of ICTs in governance at the local level. The study also investigated the growth and progress of electronic services provided by The Ghana Water Company Limited and the Electricity Company of Ghana in the Municipality.

The study discovered the Municipality in bid to deepen the use e-governance has developed an electronic system of paying property rates. This was done by acquiring a mobile money number for indigenes to pay through.

The study assessed an increase in the adoption and use of e-government service platforms by government institutions is associated with a higher level of the overall performance of government institutions. This implies that there is a positive relationship between e-government adoption and use by government institutions and their general performance.

The study also ascertained that the patronage or participation in e-governance is not determined by age, gender, or even one's educational background but by other reasons perhaps convenience, comfort, and globalization. This could be attributed to the perception on one's intention and behavior in using any IS device and application.

It was determined that patronage in e-government services with regards to the various institutions was low and gradually picking up.

1.6 Organization of the Study

The study was divided into five chapters. Chapter One is the introductory chapter; it outlines the background, research problem, objectives of the study, research questions,

significance of the study, justification of the study as well as the scope and limitations of the study. In chapter Two, a thematic review of related literature based on the study objectives is made. This chapter also explains the theoretical model and the conceptual framework for the study. The study methodology is explained in Chapter Three, while Chapter Four, focused on data presentation and analysis, as well as discuss data collected from the study sites. The last chapter summarizes the findings of the study hence highlight remarkable information discovered, drawing recommendations for future research and policymaking.



CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter examines relevant literature directly related to the research problem and objectives of the study. The chapter also investigates, issues relating to the concept of e-government and its practice. It continuous to explore literature underpinning E-government and E-governance, Digital Divide, Coproduction and Citizen's Participation.

2.2 E-government Maturity Models

The term maturity denotes a state of continual development (Andersen & Henriksen, 2006). Multiple writers have separated several phases of e-government implementation based on web measure index in order to better understand the implementation process, commitment of efforts and resources in the development of e-government in various nations. The phases provide an indication of the e-government maturity that a country has already attained. Thus, maturity models in this regard represent a stage of growth from lower stage to higher stage. The value or utility derived from e-services increases from lower phases to higher phases. As a result, stages denote the stage of e-government growth based on the content and services offered through official websites (UN & ASPA, 2002). As e-government progresses from its early stages to its later stages, the technological and organizational complexity increases (Layne & Lee, 2001; Gartner, 2000). This suggests the fact that though higher stages of e-government may be desirable, they are difficult to attain. In literature, there is no consensus on the number of phases that e-government should go through from immaturity to maturity (Irani, et al., 2006).

Maturity models provide systematic references to evaluate in this case the performance of local e-governments in the citizen's environment. Developed and developing countries have advanced far in socio-economic terms, paying great attention to the introduction of digital technologies in most areas of human activity, including in public administration (Jussupova, Bokayev, & Zhussip, 2019). E-Government mechanisms are implemented in many countries and are at different levels of their maturity.

The review of literature has revealed a good number of e-government models that offer the phases of evolution through which e-government can be measured. The various e-government models that range from three to five levels include (The World Bank, 2003; Layne and Lee, 2001; Hiller and Belanger, 2001; West, 2001; ESCWA, 2003; Baum and Maio, 2000; Gil-Garcia et al, 2007; Sahraoui, 2007; Anderson and Henriksen, 2006). The descriptive examples of some of the modes are presented below:

2.2.1 Gartner Maturity Model

Gartner Maturity Model (Baum and Maio, 2000) the model focuses on back-end business process integration and offers three stages of (1) web presence which provides a relatively static website for information publishing; (2) Interaction stage which allows a two directional communication where users are able to come in contact with different government entities through downloading of forms and related documents and using emails; (3) The transaction stage which enables users to transact online; and the (4) transformation stage affords the government an opportunity to transform the operational processes in order to provide an efficiently enhanced and integrated personal and unified service to users.

2.2.2 Layne and Lee's Four Stages Model

The Four Stages Model (Layne & Lee, 2001) examines e-government maturity from two perspectives: technological and organizational complexity, and integration. The complexity level goes from simple to sophisticated, whereas the integration dimension goes from sparse to flawless. Looking at e-government maturity through this lens, we can identify four stages of e-government development: (1) Catalogue Stage, (2) Transaction Stage (3) Vertical Integration, and (4) Horizontal Integration. In the first stage, governments try to develop an online presence by creating websites and providing information to citizens via these websites. At this time, the amount of information provided is limited. Because governments have already established an online presence, the second stage sees them and takes it a step further by allowing citizens to transact with the government electronically.

During the third stage, Layne and Lee state that governments will try to integrate their services vertically. According to them, it is much easier to integrate similar functions in different levels of government rather than trying to integrate different functions at the same level of the government. The Government to Government (G2G) interaction is typical at this stage, which means information systems at various levels can communicate with one another, reducing data redundancy, improving consistency of outcomes, and expanding opportunities for cost-sharing partnerships, all of which result in cost savings (Ebrahim & Irani, 2005). At the fourth stage or final stage, government's horizontal integration of information systems will take place, which is the most complex stage of e-government integration and from the integration point of view the authors call it "seamless" integration. With horizontal integration, governments achieve similar vision to those of Enterprise Resource Planning systems in business world (Lee, Tan, & Trimi, 2005)

2.2.3 Public Sector Process Rebuilding (PPR) Model

An extension of the Four Stages Model was proposed by Andersen and Henriksen in 2006. Andersen and Henriksen take an activity and customer centric approach rather than the technological capability approach.

According to Andersen and Henriksen, e-government is developed in four phases: (1) Cultivation, (2) Extension, (3) Maturity, and (4) Revolution. The development phases are viewed from two dimensions: customer centric, and activity centric applications. The values of the two dimensions range from rare to widespread and are continuous rather than discrete.

Horizontal and vertical e-government integration, front-end systems for customer services, intranet adoption and use, and adoption of personalized online user interfaces for customer procedures characterize Phase I. Web pages are used to display these user interfaces. However, the cost of establishing and maintaining separate websites as a result of the lack of interaction with other government organizations is a disadvantage of this phase. At this stage, there are still manual procedures in place, and while end-users have access to a lot of information, there is still a tendency to refer them to other authorities. Phase III is characterized by abandonment of intranet and integration of intranet with Internet. Web sites at this stage offer processing of requests for services from customers and the priority is to lower the marginal costs for processing these requests. "Data mobility between enterprises, application mobility across vendors, and data ownership transferred to customers" are characteristics of the Phase IV paradigm. (Andersen & Henriksen, 2006). At this phase transparency is very evident by the ability to trace employee actions as well as progress of requests through the Internet. This stage provides increased mobility and also transfer of data ownership to end-customers.

2.2.4 Moon Maturity Model

Moon (Moon, 2002), this paradigm emphasizes e-participation and system capabilities. The approach includes: (1) one-way information dissemination; (2) a dynamic website with two-way communication where users can make requests and get responses; and (3) government-to-individual transactional functionality. (4) This model's horizontal and integration levels are comparable to the last two stages of (Layne and Lee, 2001) and, (5) the last stage promotes political participation through online voting and surveys. On the whole, this model resembles Hiller and Belanger's.

2.2.5 The World Bank Stage Model

At the first stage, according to the World Bank model, governments are publishing information online through the websites, which is one way communication. At this stage customers can have access to rules, regulations, documents and forms. Comparing this to web evolution, this stage of e-government resembles web 1.0, where web sites are “read-only” rather than “read/write”. At the second stage, according to the World Bank model, governments engage citizens with the possibility of interaction at all levels of government. Engagement of citizens at this stage contributes to building public trust in government. The third stage of e-government, according to this model, is possibility to transact, i.e. ability to make online transactions. At this level, users of government services can use government services and can perform tasks, through e-government interfaces, usually web sites. This model mirrors the stages of e-commerce growth, and it appears that the World Bank regards e-government as a G2C type of e-commerce using this model. This is supported by Andersen and Henriksen (Andersen & Henriksen, 2006).

2.2.6 United Nations' Five Stages Model.

The United Nations, with its Five Stages Model, is another institution developing a model for e-government maturity. (Jayashree & Marthandan, 2010; Ronaghan, 2002).

This model foresees five stages of e-government evolution: (1) Emerging presence, (2) Enhanced presence, (3) Interactive presence, (4) Transactional presence, and (5) Seamless or fully integrated presence.

According to the United Nations' Five Stages Model, the first stage is defined by a few static web pages with very limited information presented. The second stage of e-government is marked by a stronger presence, with government agency websites that are more dynamic and provide up-to-date information. Users can obtain a lot of information on specialist websites at this time. The third stage is characterized by interactive portals where the information flow is in both directions, i.e. apart from users being able to read information, they are able to send feedback or to “read and write”. At the fourth stage users can actually perform tasks and transactions such as renew documents, apply for personal documents, and update their personal records. At this stage citizens indeed get serviced by the government online. At the greatest level of e-government, governments construct a so-called "one-stop shop" where people may see and use all of the government's services through a single uniform website. UN's Five Stages Model looks at the e-government level from the interaction level between government and citizens, which is very similar to World Bank's Three Stage Model, and partially to Layne and Lee's Four Stages Model.

2.2.7 Hiller and Belanger Electronic Government Framework

Hiller and Belanger also have created their model of e-Government stages (Hiller & Belanger, 2001). Their model consists of five stages: (1) Information, (2) Two-way communication, (3) Transaction, (4) Integration, and (5) Political participation. Hiller

and Belanger Electronic Government Framework is an extension of previous models by adding the fifth stage which is Political Participation. In terms of strategy, this model is similar to the other aforementioned models in that it looks at e-government from a technology standpoint. As stated by the authors in their study, (Hiller & Belanger, 2001), their model is based on the previous four stage models adding a fifth stage “to more completely represent the set.” At the first stage governments make information dissemination through their websites. At the second stage governments allow two-way communication, usually by email. At the third stage, governments allow complete online transactions. At the fourth stage, governments integrate their services, and this is usually accomplished through a single portal no matter which agencies offer them. However, as the authors state, the biggest obstacle in achieving this is the integration of their databases and information systems. This integration takes part at this stage which makes it possible for governments to make considerable savings from minimizing face-to-face interactions. The fifth stage of this model is political participation. The authors view this as the stage where online voting, online registration or posting or comments online takes part. Although this might be considered as stage two or three in this model, the authors see this as a separate stage because of the sensitivity, such as privacy concerns, of these services.

Despite these identified models, other scholars and institutions are still creating new models depending on how e-government is synthesized and adopted in various countries.

2.2 Citizen’s Participation

Democracy assumes citizens' participation- acting to influence government (Bowman & Kearney 2014). In a representative democracy, voting or election is the most common form of participation yet it is by no means elections should be the only manner through

which people should participate in a political process (Donovan, Mooney, & Smith, 2012; Bowman & Kearney, 2014). The 1992 Constitution of the Republic provides for “Decentralization and Local Government “that creates a framework for citizens” participation in decision making and local governance (Ahwoi, 2017; The Institute of Local Government Studies & Friedrich-Erbert-Stiftung Ghana, 2010). One major means of participating in governance especially is employing town hall meetings and call-in into television and radio programs to share views. Until the introduction of government websites by various agencies and institutions of government, access to information and service delivery has been more of a door to door.

It is no wonder then that state and local governments constantly experiment with new programs and new systems for producing services, all the while seeking efficiency, effectiveness, and equity (Bowman & Kearney, 2014). In the works of Bowman & Kearney (2014), they ascribe that although many innovations deal with public policies, some new ideas featured on the website are internal to government operations and are intended to make government function more effectively. These include the utilization of social media, adoption of “budgeting for outcomes” approaches, the analysis of data with geographic information system technology, and the use of logic models to achieve desired results. This assumes that participation is solely done through elections but other avenues that must be created by the government to help citizens have a say in decision making.

Researchers and practitioners have also emphasized that governments' effort to provide more opportunities for citizen participation and allow them to have a say in government performance evaluation and policy decision-making is an important strategy for

improving trust in government (Citrin and Muste 1999; Kim 2010; Kweit and Kweit 2007).

In the same vein, one explanation for nonparticipation in politics is socio-economic status, age, race, and gender. Aside from these basic reasons for nonparticipation, (Bowman & Kearney, 2014) asserts the fact that factors like dwelling place of the individual and also the way the political system is designed. Individuals with a lower level of income and education tend to participate less than wealthier, more educated individuals do so. Hearing and community involvement, budgeting and planning, town and interest group meetings are such mechanisms that participatory government can rely on (Kpentey, 2019). As also described as traditional forms of citizens participation includes voting, referendums, municipality or community assembly, public presentation, public exhibitions, and public discussions. These traditional forms of participation are characterized by limited possibilities for expressing the interest and opinions of citizens and therefore need to be supplemented with new forms for which have evolved in the last decade. Amongst these new forms of participation are the formation of alliances, creating public spaces to discuss common projects, organizing themselves to lobby and influence public policy and the heart of this thesis is the introduction of the internet as the main communication tool between citizens and different levels of government or which could also serve as a meeting point for citizens to discuss different issues (Ploštajner & Mendeš, 2015). This increased access to information has a "democratizing effect" -politicizing citizens and often mobilizing them into action.

The provincial-level civic assemblies are also another platform for citizens' participation which brings various social groups together, such as government officials,

members of civil society, academics, and representatives from the private sector (Suebvises, 2018). These assemblies provide comparable functions to municipal forums, but on a provincial level (Suebvises, 2018). According to (Connor, 2007) though their resolutions do not have binding authority, they nevertheless provide popular input into the administrative planning procedure. However, not all civic forums and assemblies function as envisaged (Chaowarat, 2010; Suwanmala, 2007). While civic forums can be important channels for citizen engagement, much depends on public officials' and villagers' willingness to work together constructively to carry out this mission (Suebvises, 2018).

Meanwhile, as the world advance in technology, various improvement has been made for communication and participation to be made easy. The existence of an active medium of communication and interaction between leadership and citizens, makes the latter tend to participate willingly in the locality to improve projects because they “own” those projects and they have these strong feeling of responsibility and hence corporate to see the fulfillment of such projects (Kpentey, 2019).

Irvin and Stansbury (2004) cited in (Zhou, Xiao, & Feng, 2014) argues that citizens participation develops participants to obtain related skills and some control over the policy process, but it also comes with problems of time consumption and ill fare outcomes if seriously affected by some interest groups. Particularly under the background of advocating the new governance all around the world, it is also fair to make known that citizens participation is not agreed to be perfect both in theory and practice, it is not also easy to ignore citizen participation in studies of public policy processes and government decision making when democratic politics develop increasingly and citizens awareness improve gradually (Zhou, Xiao, & Feng, 2014;

Bingham, Nabatchi, & O'Leary, 2005). Citizen participation is extremely important at the subnational level, concerning both deconcentrated units of the central state and decentralized local authorities or what is known as local government. A citizen should become visible not only for the administration but also for himself/herself and this requires constant inquiry into dealings of the government and the role citizens must play to keep them on track. (MÄKINEN, 2006) Opines that Growing towards participatory citizenship is not only an individualistic process, where a person learns useful skills for himself/herself but also an interactive learning process in the context of one's environment and community.

Citizens' participation in public administration improves the effectiveness of public service delivery by allowing new decisions to be better tailored to local problem circumstances (Suebvises, 2018). To such an extent is delivering services that will make one have a feeling of self-belongingness in society.

It can be gathered that sometimes participation processes are tailored to some interested parties, the general public, and sometimes to smaller circles of representatives of key stakeholders (Quick & Bryson, 2016). Such participation occurs through a broad network of stakeholders for which government agencies are part but are also not mutually exclusive to it. For citizens to become motivated for participation, they have to get a feeling that their voice counts, and that they can influence the situation and the course of action

Toning the same direction, (Flanklin & Ebdon, 2002) have argued that if the government does not know what service consumers want, it is unlikely that they can meet the needs of citizens.

Scholars have tried to group some forms of participation programs and for that, (Arnstein, 1969) introduces a ladder of participation that describes levels of interaction and influence in the decision making process from elemental to more in-depth participation (e.g., information, communication, consultation, deliberation, and decision-making) (Kim & Lee, 2012). Further, (Rowe & Frewer, 2005). Rowe and Frewer (2005) also categorized three different levels of citizen participation: 1) citizen communication, where information is conveyed from the government body to the public; 2) citizen consultation, where information flows from the public to the government; and 3) citizen participation, where information is exchanged between the public and the government and some degree of dialogue takes place (Sadat, 2014). The common trait with these categorizations of citizens' participation is leading the government to be more transparent to its citizens.

The emergence of transforming the public sector will therefore enhance the preparedness of officials to deliver at one-stop service to clients and widen the scope of delivery. Firmstone & Coleman (2015), argue that the concreteness of the civic collaboration projects, their proximity to the everyday life of the citizens involved, and the capability of collaboration agreements to produce visible and sufficiently immediate effects on their surrounding social environments are, on the whole, elements that can enhance citizens' trust in the municipal administration, thereby mitigating the "efficacy problem"

More closely related to what is known as Open Government, is the spark to improve the efficiency of running public administrations, efforts to reduce cost and deficits, and making it more competitive by allowing for collaboration from other public and private institutional actors and citizens (Bartoletti & Faccioli, 2016).

Other arguments about citizens' participation rely on whether the participation affects only legitimate owners. It is highlighted that governance and for that matter, citizens' participation is multifaceted and complex and therefore involves various agencies and entities in the interplay. Citizens' participation as used interchangeably as public participation sometimes excludes many participants who do not have formal citizenship status and also neglects numerous other types of public or civic participation and engagement (Quick & Bryson, 2016). These may go a long way to affect non-governmental organizations and non-profit organizations and more to that the social and democratic nature of the society.

Public participation is important for a variety of reasons, including meeting legal requirements, embodying democratic participation and inclusion ideals, advancing social justice, informing the public, improving understanding of public problems and exploring and generating potential solutions, and producing higher-quality policies, plans, and projects in terms of their content (Quick & Bryson, 2016; Bryson et al. 2013).

Consequently, Participation is key in local governance; an ultimate goal of decentralization is grassroots participation (Ayee J. R., 1999). The usage of ICT has increased citizens' ability to participate in governance at the grassroots level (Kumar, Misra, & Mishra, 2013). In India, for example, 'e participation' has been utilized to inform, satisfy, and persuade the people about government policies and policy implementation (Prasad, 2012). Studies in India prove that the use of ICT at the grassroots for the delivery of public service has facilitated greater public input into decision making and policy advice (Prasad, 2012; Kumar et al, 2013). These studies established that e-government in India has granted a channel for feedback on the services of local government authorities. Similarly, Bertot, Jaeger, & Grimes, (2010),

also posits that, if budgets and other records of local government units are made available for residents to analyze the spending of the local authorities, the general public can better assess the acts and inactions of their leaders and hold them accountable if necessary. (Adu, Buabeng, Asamoah, & Damoah, 2019). This practice will make citizens contribute their financial obligations in the form of taxes and other rates, as they will have an understanding of the usage of generated funds.

In Ghana, for instance, it was established that participation can be ineffective or just a mere procedure for the system. A study conducted by Bossuyt & Gould (2000) in Ghana, revealed that participation can be ineffective or just a mere strategy. Similarly, it was revealed the significant level of participation in some districts in Ghana but did not hint at a proportionate grassroots inclusion in the final decision making (Crawford, 2009). This may imply that there may be structures to improve and promote citizens' participation through various avenues and citizens could feel being involved in decision making but it could also entirely be a misapprehension. In other words, the structures made available for citizens' participation is an aroma for attraction but in effect, it does not taste well.

2.3 Co-productive Participation

Co-production is a process in which there is greater participation of end-users in social policy processes (Khine, Mi, & Shahid, 2021). Here government treats the public (citizens) not as customers but as partners, expanding the role of the citizen from one of "mere passive consumption of public services to one of active involvement (Linders, 2011).

The pragmatic realization that programs enhance when they are founded on client knowledge and experience, when clients invest themselves in the programs and take

ownership, and when they participate in service delivery to themselves and others underpins the co-productive form of participation. (Mizrahi, Humphreys, & Torres, 2009).

Co-production is observed in all sectors of public services, including local governance, law enforcement, education, healthcare, social services, agriculture, and information technology, among others. The study's primary focus is on municipal governance, with information technology being a secondary focus area. (Khine, Mi, & Shahid, 2021).

Co-productive participation entails collaboration between clients and professionals in the process of service delivery (Whitaker, 1980) Thus, it entails participation in the process of planning and delivering services, not necessarily decision-making regarding services (some scholars use broader definitions of co-production, e.g. (Bovaird et al., 2015; Nabatchi, Sancino, & Sicilia, 2017). The participant is a partner, contributing to service delivery with his or her own resources (time, engagement, knowledge, experience and skills), at the same time, utilizing the resources of public agencies. The co-producing participant may contribute to his or her personal service delivery or to the services of others, e.g. through peer-support, as a para-professional staff member (Alford, 2009). The greater use of both clients' and agencies' resources, as well as the increased relevance of services to clients, justify the co-productive type of involvement, which is believed to lead to improved service quality and efficacy. (Askheim et al., 2017; Voorberg et al., 2015; Whitaker, 1980).

A range of public services requires co-production in the sense of active contributions from clients, particularly when the objective of services is some form of personal transformation, e.g. education, health or family counselling (Whitaker, 1980). For instance, employment services rely on clients performing job searches, writing CVs,

participating in job interviews, undertaking job training or adult continuing education and providing the agency with information regarding health conditions and family obligations that may hinder specific forms of work, odd work hours, long commutes, etc. Without such collaboration, it is extremely difficult for employment services to move people into employment (Monrad, 2020). Other service areas such as dental care also rely on co-production; preventative dental care depends on daily participation by clients (e.g., brushing teeth), in contrast to treatments that can be delivered with a minimum of participation by the client (e.g., dental surgery). Not all activities that clients perform can be regarded as co-production. Co-production entails clients making an active contribution towards reaching organizational goals, thereby entailing more than a minimal compliance with formal requirements. Scholars have emphasized the voluntary nature of co-production: asserting that, as a form of collaboration, it requires at least partly voluntary commitment from clients (Whitaker, 1980; Alford, 2009).

Co-production is thus more than a necessary condition for the public sector to function; it is also a distinct form of client participation, in which the client becomes a key collaborator in the planning and delivery of services, and management is preoccupied with how to increase client engagement and efforts. In this form of participation, the professional may, in some cases, become an enabler or facilitator of a provider of services (Bovaird, 2007; Whitaker, 1980).

For co-production to occur, it is crucial that the knowledge, skills and engagement of the client are brought into play in service delivery. This requires that clients are both willing and able to participate (Alford, 2009). In this context, an important critique of co-productive participation is that it may hinder equitable distribution since the active participation may be burdensome for disadvantaged clients (Nabatchi, Sancino, & Sicilia, 2017). In contrast to the mistrust and control that have been characteristic of

NPM, the co-productive type of participation promotes a high level of collaboration and mutual trust between professionals and clients. (Osborne, 2006; Runya, Qigui, & Wei, 2015). Clients can participate voluntarily in service delivery without engaging in decision-making, hence lack of user influence or even non-voluntary programs do not exclude co-production. However, co-production relies on the engagement of the client, and lack of influence or even coercion may lower the client's commitment. According to Alford (2009), using punishments to ensure clients' active engagement might erode trust, leading to demoralization, animosity, and gaming behavior.

The co-productive form of client participation is linked to New Public Governance, whereby citizens are increasingly expected to actively participate in service delivery. New Public Governance denotes a change away from control, performance management, benchmarking, and service provider competition in favor of collaboration among a diverse group of publics, commercial, and non-profit partners. (Morgan & Shinn, 2014; Torfing, Sørensen, & Røiseland, 2019; Runya, Qigui, & Wei, 2015) Trust and social ties are viewed as critical governing mechanisms (Osborne, 2006). Co-productive involvement is thus dependent on an organization's responsiveness to client knowledge and abilities, professionals' competencies in collaborating with clients, and mutual trust in professionals' capacity and desire to undertake relevant activities. (Voorberg, Bekkers, & Tummers, 2015).

As outlined by Khine, Mi, & Shahid (2021), the least studied area of co-production is information technology, although it facilitates an easy method for delivering public services. Public service delivery should be provided through online platforms in executing e-governance. New media platforms improve the quality of government-citizen collaboration and information flow. Service providers benefit from online platforms, especially when coping with the new problems posed by changing societies

and citizens. It also contributes to better citizenship by assisting in the social creation of public services. Co-production when improved in the information communication space will trigger more interest of participation by citizens in governance.

2.4 Digital Divide

The second half of the 1990s saw the introduction of the term ‘The Digital Divide, or the digital split, which is a social issue referring to the differing amount of information between those who have access to the Internet (especially broadband access) and those who do not have access (SlyRenner.com, 2019). The term became popular among concerned parties, such as scholars, policy makers, and advocacy groups (Internet World Stats-Usage and Population Statistics, 2020).

The term “digital divide” refers to the gap between those who can access ICT and those who are not; a phenomenon that results from the unequal application of, and access to, ICTs, leading to a global knowledge gap between information ‘haves’ and ‘have-nots’ (Warschauer, 2002). Again, Warschauer (2003) denotes that the presence or absence of physical computers and connectivity is not the only mark of the digital divide but a more conscious effort made to access additional resources that allow people to use technology well.

The United Nations Education, Scientific, and Cultural Organization (UNESCO, 2000) defines the “digital divide” as a phenomenon that results from the unequal application of, and access to, ICTs, leading to a global knowledge gap between information ‘haves’ and ‘have-nots’ (Lediga & Fombad, 2018). The digital divide is perceived to be widening, as the ‘tech-haves’ leave the ‘have nots’ behind. The internet is also perceived as playing a Janus-faced role in the split since many people believe it has the “potential to widen or narrow the gap between rich and poor people around the world” (Spectar, 2000). More emphatic, the information and knowledge society have it that

there exist two types of countries and they are the “information-rich” and “information poor”.

In this light, the more a country develops its information system, the richer it becomes to ICT development and vice versa. Supporting arguments believes “digital divide” refers to unequal patterns of material access to, usage capabilities of, benefits from computer-based information- and communication technologies that are caused by certain stratification processes that produce classes of winners and losers of the information society, and participation in institutions governing ICTs and society (Fuchs & Horak, 2008).

These forms of technology may include computers and their networks and other digital equipment such as mobile telephones as well as digital television cannot be exempted in explaining the term (VanDijk, 2006). The spill of the internet and technology as a whole across the majority of the population of many countries has led to many speculations about the new medium in society at large. One school of thought have it that, technology, in the long run, will reduce inequality and in the end reduce the barriers to information and allow persons with varied backgrounds to improve their human capital, expand their social network, search for and find jobs, have better access to health information, and otherwise to improve their opportunities and enhance their life chances (Hargittai, 2003). The train of development needs to be adopted by both individuals and governments to bring this into reality. Embracing such strategies will in end do some good and bad as various innovations will exist in the system.

On the other hand, some scholars also contend that the distinctive movement of the internet across the populace will lead to soaring inequalities, edifying the future of those who are already in privileged positions while denying opportunities for advancement to the underprivileged (Hargittai, 2003). This is undoubtedly true to some extent that,

various factors account for the creation of such a digitally divided group in that, efforts that will be made to reduce such inequality is not in existence now. Technology keeps advancing and the discussion to bridge the gap will between the ‘haves’ and ‘haves not’ will be attained through efforts to have a more level playing ground.

There is considerable disagreement about whether inequalities in access and use are increasing or decreasing across different demographic areas. Some argue that with time some majority of the population will be online and that no policy is necessary to achieve equal distribution of the medium across the population (Compaine, 2001). Others emphasize there are increasing differences amongst various segments of the population at large (Dark, 2002). To some extent, the disparities in the use of ICT will be visible in some amount and cannot be eroded easily but conscious efforts made by governments to improve and roll out tacit strategies will help decrease that emblem. Similarly, the level of sensitization will be a key propelling wheel to help in bridging this existing gap. The fear of the unknown is a result of not practicing. These ‘divides’ have been a group based on different aspects by different authors.

2.4.1 Dimensions /Components/ Aspects of Digital Divide

Different scholars have defined various aspects and components of what mainly are the causes of the ‘digital divide’. These aspects vary in considering different factors that amount to the cause of the divide and more so some demographic factors are considered to be part of the trend.

DiMaggio & Hargittai (2001) sees these barriers to include differential access to broadband telecommunications; differences in knowledge and skills in using computers, or in attitudes toward using them; inadequate online content available for the needs of low-income citizens, especially in diverse languages; and governmental controls or limitations on unrestricted use of the Internet in many parts of the world.

This assertion can be applicable in most developing nations because the factors or barriers highlighted are most associated with them and Ghana is of no exception.

Wilson (2006), associates the digital divide with some eight aspects which includes physical access (access to ICT devices), financial access (cost of ICT services relative to annual income), cognitive access (ICT skills), design access (usability), content access (availability of relevant applications and information online), production access (capacity to produce one's content), institutional access (availability of institutions that enable access), and political access (access to the governing institutions where the rules of the game are written). Wilson further relates these eight aspects to six demographic dimensions of the digital divide: gender, geography, income, education, occupation, and ethnicity. The demography of every society is an element to consider as it can be linked to the political, economic, and cultural characteristics of that same society. Arguments still pertain to the actual domain in considering the access to ICT tools and the use of ICT tools. The digital divide may fall into these domains owing to how it is being defined and the relationship between its existing parameters or causality which can be measured differently. These factors can be embedded as what (Warschaure, 2002) describes as encompassing physical, digital, human, and social resources and relationships. Emphasis is deeply made on the claim that the digital divide is marked not only by physical access to computers and connectivity but also by access to the additional resources that allow people to use technology well. Using technology well mentioned by Warschaure is key and in my assertion the more you practice the more you become familiar with how the system operates. What then are some barriers to such an experience which could be also seen as additional resources? The needed resources may include, language, content, education, literacy, or community and social resources, which will be difficult to overcome in people's minds. Summing up such resources

explicitly portrays how expensive and cumbersome governments find it to introduce ICT in governance.

Technology and society are intertwined and co-constitutive, and this complex interrelationship makes any assumption of causality problematic (Warschaure, 2002). What is the effort made to use local languages on various government websites and interfaces? Other authors reiterate the problem to be the basis of demographic characteristics which includes user's social, cultural, political, and economic capital measured by other factors like education, gender, income, language, national citizenship, skills, and urbanization (Brake, 2014) (Hargittal, 2010) (Smith, 2013) (Schradié, 2011). Dahlberg (2015), views the digital divide as to how the individual is empowered by different levels and types of digital media access and usage, where empowerment here generally refers to users making a conscious effort to increase their capacity to shape their own lives and to participate in the shaping of social life more broadly. These political and economic might dwindle from countries as a whole to individuals as well. The fact that developing nations are trying to catch up with developed ones has grave disparities because the more they approach the more the developed ones move a step further. It is without doubt and glaring that we see the global effect of the 'divide'. Using Amartya Sen's capabilities model, (Wresch, 2009), comparing developed nations to developed ones in terms of the global digital divide, the experience is such that the developed nations keep moving steps away further as the developing nations try to catchup.

Some scholars continue to argue that the "digital divide" is gradually becoming a thing of the past and does not pose a serious threat as was assumed some time ago (Compaine, 2001) (Arrison, 2003). In other cases, researchers continually support some basic

factors that affect or cause the persistence of the technology divide. These factors include race (Brodie, Flournoy, Altman, Blendon, & Rosenbaum, 2000) (Cooper, 2000), age (Cooper, 2000) (Jennings & Zeitner, 2003) and low income (Cooper, 2000; Jackson, et al., 2003). In reiterating such aspects, factors, and dimensions of the “digital divide,” Mossberger, Tolbert, and Stansbury (2003) assert that to better understand this concept, one must conceptualize it to consist of multidimensional aspects of technological inclusion: “an access divide, skills divide, an economic opportunity divide, and a democratic divide” (Mossberger, Tolbert, & Stansbury, 2003).

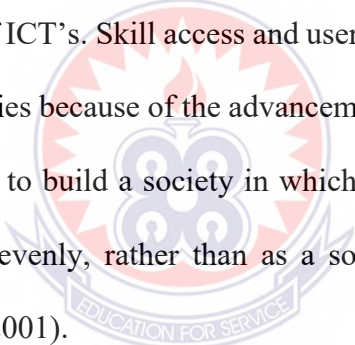
It is undoubtedly true that a socio demographic stratification of users’ willingness or ability to exploit the opportunities provided by online media will have important repercussions for the Internet’s effect on political participation (Hoffmann & Lutz, 2019). It could be identified that these factors are intertwined as various scholars in the discipline try to explain. The socio demographic factors are one such of importance for the realization of such divide.

These aspects keep on adding up and even sometimes changes due various studies conducted by scholars. Technology encourages and bounds human practice and its main dimensions are material access to them, the capabilities to use them, the capabilities to use them in a manner that will benefit the individual, others and embedding institutions (Fuchs & Horak, 2008). On the other hand, if these dimensions are not present then they might be caused by other dependent distribution of economic (money, property), political (power, social relationship) and cultural capitals (skills). Hence the introduction of an economic divide, a political divide and a cultural divide.

The underlying concern is the biding that, no matter the harm is far more perceived than that of the good and therefore a country with much technological development tends to

do well than the otherwise. Material access consists of the availability of hardware, software, applications, networks, and use of ICT devices and applications. The capability needed for operating ICT hardware and applications, for yielding significant online content and for engaging in online communication and co-operation is what will refer to usage and skills access. Institutional access refers to the ability of citizens to participate in institutions that govern them. Benefiting from such access is when the individual gains positive advantage and advances for a good society for all (Fuchs & Horak, 2008).

These structural inequalities are caused by the multidimensional class structure of modern society which is the reason for gaps in access, usage/skills, benefits, and participation in the use of ICT's. Skill access and user access are broadly widening and deepening in most countries because of the advancement of technology. We agree that public policy should aim to build a society in which the benefits of new information technologies are spread evenly, rather than as a source of privilege reinforcement. (DiMaggio & Hargittai, 2001).



What matters most about ICTs is people's ability to use that device and connection to engage in meaningful social practices, rather than the availability of the computer device or Internet line. (Warschaure, 2002). ICT has become one of the main drivers of growth, but economic growth, important as it is, must be promoted in tandem with social and democratic objectives, especially in tackling exclusion (Organization for Economic Co-operation and Development, 2000). This is increasingly the condition for involvement in the decision-making and community activities that also define participation in society (OECD, 2021).

2.5 E-participation

The introduction of ICT and for that matter Web 2.0 specifically to help in transforming the public sector, has empowered citizens' interactions with the political and administrative sphere in the form of e-participation. The term 'E-participation focuses on the relationship between the citizens and the political sphere, as well as referring to a new communication channel for citizens and administration (Sæbø, Rose, & Flak, 2008) (LeMasson & Al-Yahya, 2014). With the sole aim of making government more accountable and responsive in its dealings, there is the need to allow citizens to partake in decision making their voices heard through various platforms like the government websites, in-phone text, and various applications that can ease the access to information and hence make service delivery effective.

2.5.1 Domains of E-participation

Participation may come in different forms and this depends on the appropriate and conducive form. Citizens are free to select from the varied means of making their grievances known to government and stakeholders. Some of these are discussed below;

2.5.1.1 Consultation

This aspect of e-participation deals with the search for opinions and feedbacks from citizens based on information provided to them, usually done through a study by allowing them to answer some questions and bringing out their views. Data obtained from the study are then used by decision-makers or stakeholders. This process is a form of two-way communication between citizens and decision-makers (Braak, 2008)

2.5.1.2 Deliberation

An open discussion for the assessment of available options and the understanding of problems that are inherently important to policy issues. This requires the assembling

of varied options and choosing from the best alternative. Such a discussion will be held at an early stage of the decision-making process, usually before voting (Silva, Quarema, & Guerreiro, 2016). In addition, it also ensures a good rapport between stakeholders (citizens and government) hence, serving as a check to prevent any contemptuous decision but rather a consensus arrives. It brings to force well communicated and structured common opinions that have been scrutinized by different individuals which burden one to openly involve in such an exercise confidently (Rose & Sæbø, 2010)

2.5.1.3 Polling

Polling is a technique that continuously interrogates citizens' behavior or opinions (targeted citizens) on a variety of topics. The citizens involved in polling are usually selected scientifically (Bruschi, Fovino, & Lazino, 2005)

2.5.1.4 Voting

Voting is an important element of any democratic state. When it comes to elections, voting is a means of electing something that serves the interests of the majority. At the time of voting, the individual gets the nod to vote on the decision or policy that favours the person. With how delicate elections have become, the employment of ICT plays a crucial role in the voting process as it enables people to vote without being physically present, Perhaps by using mobile phones, automatically counting voices, or providing a comfortable means for the elderly and disabled to vote by enhancing accessibility features. (Silva, Quarema, & Guerreiro, 2016) (Xenakis & Macintosh, 2004).

2.5.1.5 Campaigning

It is without a doubt that ICT, especially social media plays an important role in campaigning as it supports the campaigning process. It involves the dissemination of

information to party sympathizers and the whole population, most importantly those who use that medium in the form of influencing decisions and getting feedbacks. Web technology and social media have a big impact on campaigns because they make it easier to reach out to the right people and track progress (Baringhorst, 2009) (Barrak, 2018)

2.5.1.6 Electioneering

This is a political campaign run by a candidate using several activities to target the electorate via a variety of communication channels, such as social media, which are used to spread the candidate's messages (Ergazakis, Metaxiotis, & Tsitsanis, 2011)

2.5.1.7 Petitioning

A formal document signed by several citizens demanding answers from a particular institution or an individual. Because it provides a convenient means of conversation, ICT will assist petitioners in disseminating knowledge about the issues and encouraging more people to sign. (Mosca & Santucci, 2009). Most constitutions allow for such petitioning and the use of technology helps in the dissemination of information and to have the numbers to follow a particular course.

2.5.1.8 Decision Making

This is another means of choosing the best from alternatives where individuals are allowed through participation to make decisions on issues that affect concerns them. It allows for participants to express their feelings and thought about problems that are worrying to them because it offers rich information about the problem (Ergazakis, Metaxiotis, & Tsitsanis, 2011)

2.5.1.9 Service Delivery

The heart of e-government lies here because the government through this means provides services over the internet that allow citizens to transact business electronically. E-participation is utilized as the provision of more e-services will result in more citizen participation (Fraser & Adams, 2003).

2.5.1.10 Spatial Planning

This is a process of monitoring and managing space and development on a local, regional, national and international level to achieve a better distribution of people and activities according to the needs of society, the economy, and the environment. Using ICT, Geographic Information System (GIS) systems in particular, in conjunction with useful information about regional municipality decisions, it is possible to reduce conflicts between opposing sides in a fast and transparent manner (Ergazakis, Metaxiotis, & Tsitsanis, 2011).

2.5.1.11 Information Provision

Information provision is a crucial component of e-government and e-participation programs, as it impacts individual involvement success. It assists participants by offering an in-depth understanding of certain concerns through the dissemination of well-structured, current, and reliable data. The ability to make compelling arguments is dependent on citizens having access to the necessary information, resulting in a valuable contribution to issues (Ergazakis, Metaxiotis, & Tsitsanis, 2011) (Silva, Quarema, & Guerreiro, 2016).

2.5.1.12 Mediation

In reaching an agreement, there are various means and mediation is one of those that help in dispute resolution among parties. ICT assists in the mediation process by

offering a wide range of tools for connecting and initiating discussions between parties to achieve dispute resolution (Ergazakis, Metaxiotis, & Tsitsanis, 2011).



2.5.1.13 Community Building

Through the formation of groups, it is political, economic, and social in the community that shares common characteristics that will aid in the building of a community. Social networking technology supports community building. Individuals can access these groups online easily and get any information about the groups being their aspirations, aims, goals, and objectives. Social media networks especially Facebook, for instance, have been used to create groups for people with common interests where they share opinions and offer comments or dislikes on the content shared by others (Ergazakis, Metaxiotis, & Tsitsanis, 2011).

2.6 E-governance and E-government

The definition of terms in every discourse is open to varied understanding as it is always described in the context for which it is being used. E-government and e-governance are mostly used interchangeably to mean the same thing by most scholars. This process is a tool to itemize the conceptualization and the definition of such basic terms. There is no agreed definition for these concepts (e-governance and e-government) and it allows for ongoing debate among scholars. Hence, there are multiple definitions of e-government among researchers and specialists (Carter & Bélanger, 2005; OECD, 2003). The World Bank explains E-Government to refer to the use of information and communications technologies (ICT) to improve the efficiency, effectiveness, transparency, and accountability of government (The World Bank, 2015). E-Government can be seen simply as moving citizen services online, but in its broadest sense, it refers to the technology-enabled transformation of government – governments' best hope to reduce costs, whilst promoting economic development, increasing transparency in government, improving service delivery, and public administration, and facilitating the advancement of an information society (The World Bank, 2015; The

Belgian Development Cooperation, 2017). Gil-García & Martínez(2005), also defined e-government as a thorough use of IT for service provision to their citizens, and the improvement of managerial efficiency, and the encouragement of democratic values and mechanisms. As also explained, E-Government is a means of transforming government by increasing government efficiency and productivity in exercising governance, improving service quality, and offering higher government accountability (Voutinioti, 2017). E-governance can evolve into participatory governance if it is supported by the appropriate principles, objectives, programs, and architectures associated with electronic government (Ergazakis, Metaxiotis, & Tsitsanis, 2011). It is essential to promote and allow citizens to communicate and participate in e-government (Jahankhani, Dastbaz, Shareef, & Pimenidis, 2015). From the definitions of e-government by various scholars, it could be traced that the term is not all about the adoption of the use of ICT tools in governance but in a more concrete essence, it should enhance a more effective and efficient system of information access and delivery of service.

In this regard, Fang (2002) defined e-governance as the direct contribution of the people in decision making and participating in political activities such as e-democracy, and e-voting. In its broader definition, e-governance will cover parliament, Judiciary functions, government, citizens' contribution, political parties, and organizations. For this research, the definition of Fang will be adopted. E-Governance depends not only on the supply of infrastructure enabling individuals to access the Internet but also on growth in the percentage of Internet users within a society (Rose R. , 2005).

The involvement of citizens and the benefits enjoyed by both governments and their citizens through the use of ICT in governance is what validates the system as being responsive, transparent, and incorruptible.

2.6.1 Pillars of E-governance

E-governance refers to the government's use of the internet to deliver services to customers, businesses, and other stakeholders (Yadav & Singh, 2013). In E-Governance, government makes best possible use of internet technology to communicate and provide information to common peoples and businessman. Today, electricity, water, phone and all kinds of bills can be paid over the internet. All this is what government and citizens is using and doing. All are dependent on internet and when citizens depend on government internet services all that come is E-Governance.

As identified by Yadav & Singh (2013), the four main pillars of e-governance include connectivity, knowledge, data content and capital. These pilliars are discussed bellow;

Connectivity: People must have access to government services, which necessitates connectivity. For effective e-governance, there must be sufficient connection. The continued usage of e-government services will rely on reliable connections, particularly from network providers and government bodies.

Knowledge: When we say knowledge, we're talking about IT knowledge. The government should hire skilled technologists who can efficiently handle e-governance. These engineers also deal with any issues that arise during the operation of e-governance. Developing a strategy plan to ensure that every stakeholder is fully informed, educated, and trained in the use of current technical tools will be part of the knowledge creation process.

Data Content: There should be a database for sharing any kind of knowledge or information through the internet. The data content in this database should be relevant to government services.

Capital: Capital might come from public or private sources. It refers to the money utilized by the government to provide services or to the economic sector in which it

operates. To aid the successful implementation of the e-governance process, resources and, to a large degree, human capital are required.

2.6.2 Implementation aspects of E-governance

The implementation of e-governance systems has many aspects. For example, normally e-governance services are non-profit making services and most of the time their payback period is very high which makes them capital intensive (Narayan & Nerurkar, 2006). Further, connectivity is an issue to make the service accessible to a major section of the society. The “7-C model” (Hari., 2000) aptly keys various implementation aspect of e-governance. The 7C’s are (the order doesn’t represent relative importance):

Capital: E-governance services are designed to provide citizens with speedier and more effective services, with business concerns being a minor factor. Due to high costs, several services that were launched years ago have yet to break even. Although there are other social benefits that are beyond the focus of the current study, the operating cost with a pittance of subsidies to consumers makes it difficult to create operational profit.

Connectivity: Success of e-governance service is dependent on its reach to the people. A good system can be good only when it can benefit a larger section of the society hence the need of connectivity till the last mile.

Commitment: As e-governance are not viewed in terms of accounting profits and shorter payback periods, one of the greatest motivators which money is absent. With a good chunk of outflow and little inflow the governments need determination and commitment to sustain the service. E-governance champions at different hierarchy of the system are needed to push through the project to its logical end. And needless to mention the gestation period of these services are normally longer than the industrial projects.

Competence: Competence is required to gather the intelligence at the grass root level. Understanding of people's problem as well as those who are going to provide e-governance services (mainly operators and clerks) needs more than understanding of software engineering. Many good systems have failed because they did not capture the psychological aspects of the implementation. Competency of the information and communication technology, requirement engineering processes and ground level knowledge is a must for success.

Content: Also, the content if not available in local language which can capture understanding of people at the grass root level. A customized content in a local language is one of the important aspects. According to Narayan & Nerurkar (2006), in India the lack of customized content is one of the hurdles in implementation of the e-governance services. Requirement of an urban citizen and rural citizen differs.

Citizen Interface: The user interface should be clear and simple to navigate so that even inexperienced users can access the services.

Cyber Laws: To make documents or information legally valid, services should be backed by cyber laws. Indian IT act 2002 was one of endeavor towards this which made emails and other digital documents valid as a legal document (Narayan & Nerurkar, 2006).

2.7 Concepts of E-government

E-government becomes more successful when the communication and the interaction expand to cover the entire society. Various scholars discussed the influence and effectiveness of electronic communication and interactions among government institutions and citizens and businesses. Some of the scholars suggested three classes of communication (Lee et al., 2011; Nour et al., 2008; Reddick, 2004; Seifert and

Petersen, 2002), such as; government to government (G2G), government to citizen (G2C), and government to Business (G2B).

However, others suggested four classes of communications (UN, 2005; Wiskott, 2002; Wimmer & Tambouris, 2002) which added the fourth class which is government to the employee (G2E). The domain keeps on increasing as many scholars find it relevant to add other stakeholders in the implementation and use of the information system. For this study, we heeded the four domains highlighted above and which could also be termed as the primary categories of e-government transactions.

2.7.1 Government-to-Citizen (G2C) services

The Central government and its branches at the local level have a lot of responsibilities to perform to the wide citizens as a whole and the local communities as well. This relationship spans a variety of issues which includes claims for beneficiaries, payment of taxes, bills and property rates, provision of government services in waste management, etc. This interaction between government and citizens if placed and carried out on any electronic platform would be defined as a G2C service.

Yadav and Singh (2013), this model tends to solidify the bond between a government and its citizens. Hence it provides a better avenue for participation in governmental activities and, also enhances the G2C interactions.

2.7.2 Government-to-Business (G2B) services

Businesses don't just spring up in a country but must go through a process of registering and being advised by governmental agencies both at the national and local level before they can operate. After acquiring those licenses, businesses especially local community ones are to pay taxes to the government through the local government which serves as representatives of the government. Government contracts and services conducted

online or electronically then become the definition of government-to-business (G2B) services.

This when practiced will make room for proper legislation and control of businesses and hence raise revenue for the development of the country and the local communities as a whole.

2.7.3 Government-to-Employee (G2E) services

This particular relationship refers to governments' ability to interact with their employees and staff electronically. The government through electronic means can deliver mails and payment slips as well provide feedback and schedule agendas for staff or employees to provide the basis for such interactions to happen. That is the G2E services.

2.7.4 Government-to-Government (G2G) services

Governmental agencies and departments cut across various MMDA's and are not all situated in one location across the nation. These arms, institutions agencies of government that operate in different locations have a lot to share in common. Government in doing business cuts across several organizations both governmental and non-governmental and to do this, electronic platforms could be created for information and communication to be carried out. This is referred to as the G2G services.

2.8 E-government Development in Ghana

The urgency at countries is responding to changes in the administration of their public agencies and institutions is a wake-up call for a state like Ghana to do the same. In the void of deepening e-governance in Ghana, the Government of Ghana, in 2003 put together a policy statement on ICT for Accelerated Development (ICT4AD) (Botchway, Yeboah-Boateng, & Kwofie, 2016). The Government realized the need to

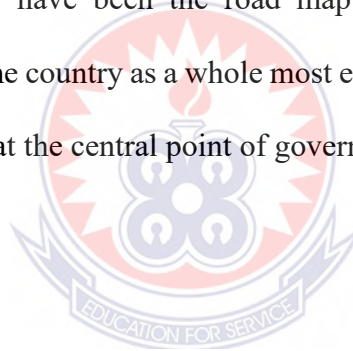
participate in the race to become a digital society and the role of ICT in empowering the citizens in 2003 (Ghana ICT4AD, 2003).

The ICT4AD Policy (Ghana ICT4AD, 2003), symbolizes the vision of Ghana in the information age. It was based on the framework document: “An Integrated ICT-led Socio-economic Development Policy and Plan Development Framework for Ghana”. The development of this policy was based on a nationwide consultative process involving all key stakeholders in the public sector, private sector, and civil society of Ghana (Ghana ICT4AD, 2003). This could be seen as the governance wheel because all stakeholders were factored in the preparation of such policy. In July 2006, a \$40 Million loan was approved by the World Bank for the Government of Ghana through the Ministry of Communications, to assist Ghana to generate growth and employment by leveraging Information and Communications Technology (ICT) and public-private partnerships to; (a) Develop the IT Enabled Services industry, and (b) Contribute to improved efficiency and transparency of selected government functions through e-government applications (NITA, Ghana. 2017). The entire project consisted of four components and was completed by the end of December 2014. In the same light, for the smooth connection and operation of ICT systems deployed amongst MDAs, Ghana developed an e-Government Interoperability Framework to serve as standards and policies that would guide the selection of ICT systems.

Again, in November 2008, parliament approved a \$30 million concessionary loan facility that was extended to the government of Ghana by the government of China for the construction of the initial phase of a nationwide e-Government infrastructure for Ghana. The proposed infrastructure would connect all public institutions, MDAs, and MMDAs to a single shared communication and computing infrastructure to facilitate

the effective delivery of government services to citizens, businesses, and others. It would also provide a national data center and a secondary data center facility for disaster recovery capability, and eventually connect all public institutions, MDAs, and MMDAs to single shared communication and computing infrastructure to facilitate effective delivery of government services to citizens, businesses, and others. (NITA, Ghana. 2017). Here we find the continuous effort by the government of Ghana to improve and better the e-governance agenda. Ghana began building a comprehensive e-Government network infrastructure in November 2008.

This was supposed to bring the national backbone infrastructure to all of the country's districts and create a national data center (National Information Technology Agency, 2017). These and many have been the road map to the institutionalization of e-government services in the country as a whole most especially in the bid to decentralize more to reduce pressure at the central point of governance.



2.9 Key E-government Services in Ghana

In the bid to increase the use of digital system in governance, the government of Ghana for some times have made efforts to make some electronic services available for citizens to use. These services are discussed below;

2.9.1 Government Online Services Portal (eservices.gov.gh)

This is an online service portal that provides a one-stop window for services and information being offered by the various MDAs, MMDAs, and all other Government Agencies (Amanfu, 2018). It is made up of four sub-portals, namely, “Citizens”, “Non-Citizens”, “Businesses” and “Governments”. Available on the portal are the services rendered by these agencies: Registrar General’s Department (RGD); Ghana Revenue Authority (GRA) (IRS, VATs, RAGB, LTU); Driver’s and Vehicle License Authority (DVLA); Passport Office (MFA-PO); National Information Technology Agency (NITA); National Identification Authority (NIA); Mineral’s Commission (MINCOM); Births and Deaths Registry (BDR); Ghana Police Service – CID (GPS-CID); Food and Drugs Board (FDB); Ghana Tourist Authority (GTA); National Communications Authority (NCA) and Accra Metropolitan Assembly (AMA) (eliberia, 2020). For further clarification and education; these portals have made it easier for: clients of the Passport Office to submit personal details for application of their passports online; for individuals and businesses to register their businesses, file returns and pay taxes online, food product importers to register online with the FDB; Births and Deaths Registry to also administer and respond to birth certified copy requests from the public; with the Accra Metropolitan Assembly, registration of marriage and acquisition of marriage license is possible; the Ghana Tourist Authority to register accommodation and catering establishment, the DVLA component introduces online drivers’ license renewal application and vehicle ownership transfer services; The Criminal Investigation

Department of Ghana Police Service to do nominal vetting application (for non-residents) and criminal check application (finger print vetting for local citizens including appointments) and last but not the least, users of Minerals Commission's services to also apply for prospecting/ reconnaissance license and for a land Cartographic search (Frimpong-Manso, 2020). In addition, all relevant forms required to be completed by clients to receive any services from the MDAs can be downloaded online and applicants can print the forms on their own and complete them without traveling to Agencies' offices for copies of the forms.

2.9.2 E-Payment Services (epay.gov.gh)

The Ghana E-Payment Portal (GEPP) is an online platform for the payment of Government of Ghana (GoG) services by Citizens and all other individuals and/or corporate entities conducting business with GoG. The payment platform is designed to accept the various type of payment methods, such as Debit/Credit Cards (international) – VISA, Debit/Credit Cards, Cheques, Cash & Vouchers, Mobile Money Payments, Bank Transfer, PayPal, etc (Amanfu, 2018) (Frimpong-Manso, 2020).

2.9.3 Government E-Workspace

The e-Workspace solution is a web-based application for a collaborative working environment. This system is a suite of solutions comprising Correspondence Management System (which allows for preparation, processing, receipting, and management of e-letters, e-dispatch, e-Minute on letters, e-Signing, e-Storage of documents, e-archiving and e-disposal of letters), Portal Content Management System, Document Management System (supports sharing of documents) and Meeting Management Systems (Frimpong-Manso, 2020). The solution also comprises Unified Communications Tools, a flexible messaging platform for managing mailing and

business communications including instant messaging, calendar scheduling, voice mail, free calls through voice over IP, video, and web conferencing over network infrastructure (Frimpong-Manso, 2020).

2.9.4 Ghana Integrated Financial Management Information Systems (GIFMIS)

GIFMIS involves the use of many integrated electronic financial modules in the management of public funds. The system covers three major areas; Financial Management and Controls, Budget, and Human Resource Management Information System. These are a few of the many e-government services provided by the Government of Ghana that citizens, businesses, agencies, and other nationals can take advantage of (Frimpong-Manso, 2020).

2.10 Benefits of E-government

The benefits of e-governments outweigh the disadvantage as most literature explains (The World Bank, 2015) (Alanezi, Kamil, & Basri, 2010). Developing a more vibrant and active technological system is all they yearn for since it aids the dealings of government and individuals as well. These benefits come to a realization when government supply and more so citizens accept and adopt the use of these systems. In the works of Voutinioti (2017), he classified e-government into two forms and these include those that are government-oriented and those that are citizen and business-oriented. Mainly advantages of e-government are mostly associated with the reduction of bureaucracy errors and more appropriately improving service quality (Irani, Al-Sebie, & Elliman, 2006) (Alanezi, Kamil, & Basri, 2010). E-government enhances responsiveness to citizens' needs and facilitation of greater access to information and services for government officials, citizens, and businesses, thus wider inclusiveness (Bélanger & Carter, 2008). E-government in another step also helps citizens'

empowerment by engaging them in decision making and participating in the democratic processes (Voutinioti, 2017) . At the same time, it increases transparency and helps in reducing corrupt activities in public service delivery. Additional resulting benefits of e-government are cost reductions, revenue growth, and economic growth for the whole economy (The World Bank, 2015).

From the perspective of citizens, e-government allows them to access information readily from government institutions through the elimination of physical contacts which speeds transaction and also reduces cost in the process of delivery of service. Al-Khoury & J. Bal (2007) and UNDESA(2012) asserts that greater cost will be reduced if direct contacts between organization and institutions of government is a thing of the past and by that, they develop and use a single government portal that will enhance information access and delivery. E-government continuous to make interactions easy, friendly, and more efficient and in turn allows establishing a proper relationship between government agencies, citizens, and businesses (Lee, Kim, & Ahn, 2011). After all the main motive of the introduction of ICT in governance is to eradicate corruption which will transcend transparency, accountability, and knowledge equity in building a strong democracy (Fakhoury & Baker, 2016).

2.11 E-government Implementation Challenges

The challenges amassed with the introduction and implementation of ICT are eminent from the stages involved in its implementation. These stages may look different in numbers but seemingly have some traits from each other as described by different authors. In a nutshell, these stages include presence/information provision, interaction, transaction, and transformation, through vertical and horizontal integration. Resources and efforts are needed for the realization of the full operation of an electronic governmental system. The availability of ICT infrastructure is considered as the main

challenge that prevents the successful e-government implementation across the globe (Al-Khouri & J. Bal, 2007; Irani, Elliman, & Jackson, 2007; Choudrie, Weerakkody, & Jones, 2005).

General efforts to improve the infrastructure in the use of ICT affect government organizations and institutions positively as far as technology is used between government agencies, businesses, and citizens are concerned (Virili & Sorrentino, 2009). In the case where various components are not collaborating, there is a low success rate in terms of service delivery and as such efforts to mobilize more resources to sustain its existence are missing. The characteristics of having e-government projects as being national agenda mean governments must endeavor to meet all the needs and goals of various departments and also improve the integration and cooperation within the arena (Irani, Elliman, & Jackson, 2007; Ciborra & Navarra, 2005; Lam, 2005).

Moon & Norris (2005), points to the fact that lack of hardware and software, financial resources, and lack of personnel specified technical knowledge pose impediments to e-government implementations. These traits are the main barriers that most governments try to avoid and gradually work towards having a workable ICT integrated system. Seemingly various studies have also identified that technical and organizational aspects are typically costly and lack of economic resources is one of the most significant barriers to the e-government implementation (Irani, Elliman, & Jackson, 2007; Sarikas & Weerakkody, 2007).

Arguably, the need for material resources on one side is a problem as well as on the other side there will also be the predicament of skill needed to use these tools. There is then the need to either employ staff for such a system or organize comprehensive staff training which in turn is costly (Lam, 2005; Moon & Norris, 2005; Karavasilis,

Zafiroopoulos, & Vrana, 2010). In the same vein, (Choudrie, Weerakkody, & Jones, 2005) identifies the resistance by workers to adopt new ways of working to be another barrier to e-government implementation and as far more its success. In summing up all these factors that impede the successful implementation of e-government in any country, it could be seen that in the end, some human factors affect the effectiveness of the implementation. It is no different in Ghana where the bureaucratic nature of our public institutions suffers the same defects. Human issues (resistance to change and leadership) are critical in adopting the technology by researchers (Welch, 2005). More so can be the issue of trust or security. Security issues are common in e-government services (Vincent & Harris, 2008). Here government must endeavor to reach a compromise to allow for citizens to register for online services and information delivery. Continuous push for the betterment of an effective ICT endowed system must be void of any scam and threats to invite more citizens to subscribe.

On a whole, the growth of technology and its widespread will live a long-standing challenge that every country will continue to face in the implementation of e-government systems to aid effective information delivery and access. Committed leadership and change of attitude towards innovations are the primary force that can help to minimize these barriers.

2.12 Conceptual Model

2.12.2 Unified Theory of Acceptance and Use of Technology (UTAUT)

The unified theory of acceptance and the use of technology focuses on the key constructs of 'performance expectancy', 'effort expectancy', 'social influence', and 'facilitating conditions' as the major determinants that dictate usage behavior (Venkatesh, Morris, Davis, & Davis, 2003). Performance expectancy depicts an

individual's belief of the ability of the system to help him or her improve the job performance while effort expectancy holds the degree of ease to use such a system. Social influence accounts for an individual's perception that he or she is expected by other citizens to use the new system while facilitating conditions depending on the individual's belief that organizational and technical infrastructure is in place to support the use of a system. Behavioral intention shows an individual's decision regarding future system use.

In the bid to expand the concreteness of TAM, which many researches have describe as not too sufficient for studying human intention in the long run, there have been several studies that suggest alteration to the initial model. This development led to the modeling of UTAUT. As identified earlier, UTAUT identifies four key factors (i.e., performance expectancy, effort expectancy, social influence, and facilitating conditions) and four moderators (i.e., age, gender, experience, and voluntariness) related to predicting behavioral intention to use technology and actual technology used primarily in organizational contexts (Venkatesh, Thong, & Xu, 2016). These four variance and moderators turn to encompass almost all IS theories and models in understanding the acceptance and use of technological system governments and individuals. In the same vein, this model will be appropriate for the study because it will not take it out of context but will rather aid in critically examining questions the study seeks to answer. Using these factors and moderators will help in understanding the level of participation of citizens in e-governance at the local level of administration. The UTAUT improved the explained variance of technology acceptance behavior to 70% over the previous models, which explained only about 40% (Venkatesh et al., 2003).

The theory was developed through the review and integration of eight dominant theories and models, namely: the Theory of Reasoned Action (TRA), the Technology Acceptance Model (TAM), the Motivational Model, the Theory of Planned Behaviour (TPB), a combined TBP/TAM, the Model of Personal Computer Utilization, Innovation Diffusion Theory (IDT), and Social Cognitive Theory (SCT) (Williams, Rana, & Dwivedi, 2015). According to Williams, Rana, & Dwivedi (2015), these varied models and theories have all been widely and successfully utilized by a large number of previous studies of technology or innovation adoption and diffusion within a range of disciplines including information systems, marketing, social psychology, and management.

It is believed that by examining the presence of each of these constructs in a “real world” environment, researchers and practitioners will be able to assess an individual’s intention to use a specific system, thus allowing for the identification of the key influences on acceptance in any given context (Williams, Rana, & Dwivedi, 2015). As can be seen by the arrows in the model (Figure 2.2), gender and age moderate the relationships between PE, EE, SI, and INT. Moreover, age and experience moderate the relationship between FC and ‘use behavior’. Experience moderates the relationship between EE, SI, and INT, and FC ‘use behavior’, while voluntariness of use moderates the relationship between SI and INT.

Hence, the UTAUT being unified in nature is considered to be an enhanced model with robust characteristics and a parsimonious set of factors that could better explain the individual’s INT and ‘usage’ (Lean et al., 2009). UTAUT has served as a base-line model and has been applied to the study of a variety of technologies in both organizational and non-organizational setting (Venkatesh, Thong, & Xu, 2012)

In validating the model, in a study conducted to investigate the determinants and age and gender differences in the acceptance of mobile learning, results revealed that, consistent with Venkatesh et al (2003), the three constructs derived from UTAUT (performance expectancy, effort expectancy and social influence) had a significant, positive influence on behavioural intention to use m-learning (Wang, Wu, & Wang, 2009). In identifying factors influencing health information technology adoption in Thailand's community health centers, it was established that, the relationships between performance expectancy, effort expectancy, social influence and intention to use Information Technology were confirmed as existing and in the same direction as the UTAUT model proposes (Kijsanayotina, Pannarunothaib, & Speediec, 2008). Furthermore, there was a positive though weak relationship between Intention to Use and reported IT Use. All this provides evidence that the UTAUT model is applicable in health care settings and in other cultures as represented in this study. In addition, this study demonstrated the direct effects of effort expectancy, social influence, facilitating condition which are the core constructs of the UTAUT model whereas the original UTAUT model demonstrated these three main constructs effect through the three- or four-way interaction terms with age, gender, experience and voluntariness

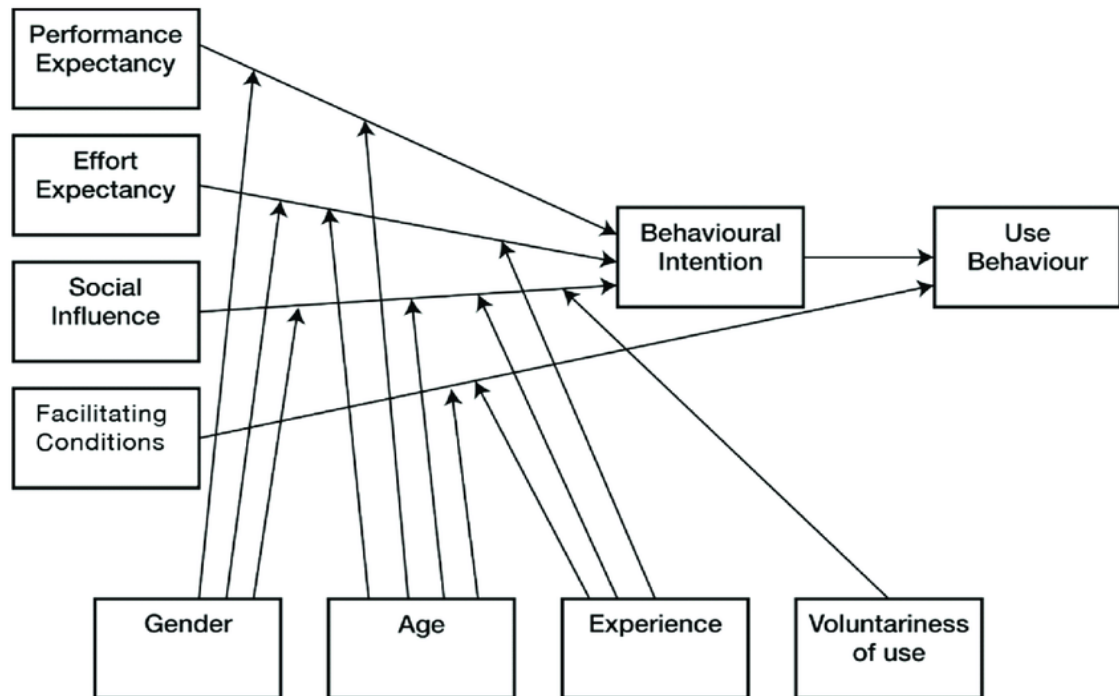


Figure 2.1: The UTAUT Model

Source: Venkatesh, Morris, Davis, and Davis, (2003).

Adopting this model for this study enabled the researcher to ask in-depth question on a broader space which considers the moderators as a key influence of behavioural intention in using Information Systems. Insofar the model guides in identifying important literature that helped in the study. This model helps in the critical analysis for the adoption and patronage of e-government by various institutions, agencies, and citizens as well. The use of technology is influenced by varied factors. These factors may move from religious believes down to social factors. However, UTAUT itself is lacking in that it does not provide for situations where disconfirmation of expectations about key beliefs may occur and, consequently, influence outcomes such as behavioural intention and use (Venkatesh, Thong, & Xu, 2012).

2.13 Summary of Chapter

The introduction of this chapter hints at the review of related literature. Varied literature included decentralization and local government in Ghana, Digital divide which was one area literature were reviewed shows that there is always a gap between ‘the haves and ‘have not. Literature also made known on the introduction of e-governance into the Ghanaian public institution and development so far. Participation as a great deal was reviewed both in e-participation which had some domains and citizens participation. The concept of e-government and the confusion around the meaning of e-government and e-governance were tackled.



CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter entails the research approach and design, data collection instrument and procedure, the target population, site selection, selection of participants, sample size and sampling procedure, sources of data as well as the method of data analysis. The chapter also outlines the philosophical assumption underpinning the research as well as a detailed explanation of deficiencies with the approach adopted. This Chapter ends with ethical considerations and the challenges faced in course of the study.

3.2 Philosophical Worldview

Research approaches are based on certain underlying or hidden assumptions that determine the validity and relevance of studies (Myers, 1997) . When conducting research, it's critical to understand the philosophy behind it, because beliefs about how we see the world and how we get knowledge can influence the research approach and methodologies employed (Myers, 1997; Saunders et al, 2011). As a result, research philosophy is linked to the nature and evolution of knowledge. Epistemology, which is defined as "concerns about what constitutes acceptable knowledge in a field of study" (Saunders et al, 2011), or the knowledge assumptions and how they might be reached, is one method of thinking about research philosophy. Related to epistemology is the ontology, which is concerned with the nature of the existence of reality (Saunders et al, 2009) it encompasses claims about what exists, what it looks like, what units make it up and how these units interact with each other (Blaikie, 2009). Ontology is a term that indicates whether assumptions about the nature of reality portray an objective, real-world reality or a subjective reality. (Hatch and Cunliffe, 2006). Epistemology and ontology are intimately related and impact on methodology, methods and sources

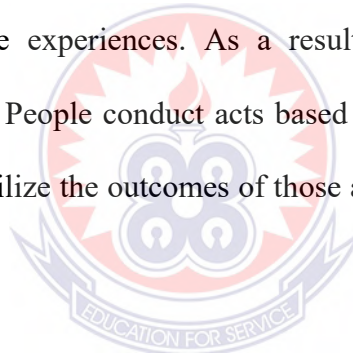
(Crotty, 1998). Ontology involves the philosophy of reality that is out there to know, epistemology addresses what and how we come to know about the reality, methodology identifies the particular practices used to attain knowledge of reality; methods define the procedures that can be used to acquire it, whilst sources is about which data to collect (Hay, 2002; Hatch and Cunliffe, 2006; Limpanitgul, 2009). As a result, different research paradigms and issues of ontology and epistemology, which describe perceptions, beliefs, assumptions, and the nature of reality and knowledge of that reality, are important to consider when conducting e-government research. They can inherently influence the way the research is conducted, from design to conclusions. (Rubin and Rubin, 2005).

As a means of providing the general philosophical orientation about the nature of this work, a pragmatic worldview was used to underpin the study. Pragmatism is a late 19th Century and early 20th Century school of philosophy which considers practical consequences or real effects to be vital components of both meaning and truth (Kelly & Cordeiro, 2020). At its simplest, something is true only insofar as it works. Pragmatism maintains that any theory that is more successful in predicting and regulating our environment than its competitors can be deemed closer to the truth (The Basics of Philosophy, 2020) . It argues that the meaning of any concept can be equated with the conceivable operational or practical consequences of whatever the concept portrays.

The origins of this particularly American philosophical philosophy can be traced back to a debate group in the United States. Cambridge, Massachusetts in the early 1870s, which brought together the founding fathers of pragmatism including the philosopher Charles Sanders Peirce, psychologist William James, philosopher and mathematician Chauncey Wright, jurist Oliver Wendell Holmes Jr., and philosopher and lawyer

Nicholas St. Johns Green. Philosopher, educationist and social reformer John Dewey; philosopher, sociologist, and psychologist George Herbert Mead; philosopher and political scientist Arthur F. Bentley; and countless other academics and non-academics further developed the doctrine over the past century (Maxcy 2003; Morgan 2014; Pansiri 2005; Ormerod 2006).

Amongst all these contributors, credence is mostly given to Charles Peirce, William James and John Dewey as current proponents of this worldview. The word pragmatism is originally derived from the Greek word “pragma,” which means action, and which is the central concept of pragmatism (Pansiri 2005). Human behaviors, according to pragmatist philosophy, can never be divorced from prior experiences and the beliefs that resulted from those experiences. As a result, human ideas and actions are inextricably intertwined. People conduct acts based on the potential consequences of their actions, and they utilize the outcomes of those actions to predict the outcomes of future actions.



A major contention of pragmatist philosophy is that meaning of human actions and beliefs is found in their consequences. External forces do not determine humans; they are themselves capable of shaping their experience through their actions and intelligence. Pragmatists believe that reality is not static, it changes at every turn of events. Similarly, the world is also not static, it is in a constant state of becoming. The world is also changed through actions, action is the way to change existence. Actions have the role of an intermediary. Therefore, actions are pivotal in pragmatism (Goldkuhl 2012; Maxcy 2003; Morgan 2014).

3.2.1 Assumptions of Pragmatism

A major underpinning of pragmatist epistemology is that knowledge is always based on experience. One's perceptions of the world are influenced by our social experiences. The pragmatic philosophical approach supports this premise by acknowledging that truth and reality can exist in singular or numerous forms, and can have an objective or subjective orientation (Shah, Shah, & Khaskhelly, 2018).

Furthermore, as a philosophical underpinning, pragmatism allows mixed methods researchers to investigate some aspects of social research using quantitative methods and others using qualitative methods (Feilzer, 2010), which can help researchers reach a consensus on what constitutes "good quality social research" (Hammersley, 2008:177). By allowing the use of multiple research approaches in practice, a pragmatic research philosophy may aid researchers in understanding the objective and subjective opinions of participants regarding many aspects of the social phenomenon under study (Shah, Shah, & Khaskhelly, 2018).

Morgan (2007) claims that pragmatism implies that pragmatic research is "intersubjective," that is, subjective and objective at the same time, admitting both the presence of one reality and that individuals have multiple interpretations of that reality. That is the process of acquiring knowledge is a continuum. Inquiry, according to pragmatists, is one's conscious response when the direction of action is not immediately evident. In such situations, a pragmatist evaluates the repercussions of various acts as well as the potential benefits of one action over another before taking any action (Biesta 2010; Morgan 2014).

We, as living organisms, are capable of forming and maintaining a dynamic coordination with our environment, according to Dewey's paradigm. (The Basics of

Philoshy, 2020). The process of establishing and maintaining the coordination results in habit formation. Through this process, our habits become more congruent to our ever-changing environment. This is a learning process, basically a process of trial and error, through which we acquire a complex, yet flexible, set of habits for action (Biesta 2010).

3.2.2 Justification for the use of Pragmatism

The study made use of the pragmatic approach because it allows participants to answer questions based on their experiences. It also allows for the use of different approaches in conducting research which justifies its use in such a study. By allowing the use of multiple research approaches in practice, a pragmatic research philosophy aided researchers in understanding the objective and subjective opinions of participants regarding the patronage of e-governance in the municipality.

3.3 Study Approach

The study employed the concurrent parallel design found in mix method approach of research. This type of research design blends the element of qualitative and quantitative methods to provide a broader and/or deeper understanding of a central phenomenon. The basic premise of this methodology is that such integration (qualitative and quantitative) permits a more complete and synergistic utilization of data than do separate quantitative and qualitative data collection and analysis (Wisdom & Creswell, 2013).

Mixed methods research draws on potential strengths of both qualitative and quantitative methods, allowing researchers to explore diverse perspectives and uncover relationships that exist between the intricate layers of our multifaceted research questions (Shorten & Smith, 2017). In the same vein, mixed-method enables quantitative and qualitative research to complement each other in one single study and

it is usually accomplished by collecting, analyzing, and integrating qualitative and quantitative data at specified phases within a single study either concurrently or sequentially (Creswell. & ClarkPlano, 2011). Some disadvantages are associated with this form of the approach despite having stronger assumptions. In one case, it often requires more resources (time and personnel) and additional research training, as multidisciplinary research teams need to become conversant with alternative research paradigms and different approaches to sample selection, data collection, data analysis, and data synthesis or integration (Shorten & Smith, 2017). In another case, mixed methods studies are complex to plan and conduct. They require careful planning to describe all aspects of research, including the study sample for qualitative and quantitative portions (identical, embedded, or parallel); timing (the sequence of qualitative and quantitative portions); and the plan for integrating data. Integrating qualitative and quantitative data during analysis is often a challenging phase for many researchers (Wisdom & Creswell, 2013).

3.4 Study Design

Given the scope and nature of this research, as outlined in previous chapters, and based on the foregoing, it seems logical for this research to capitalize on both strengths of positivism and phenomenology (interpretivism) by adopting a pragmatic position in between qualitative and quantitative approaches, thus curtail the weaknesses inherent with the use of one paradigm. Hence a descriptive survey will be adopted. This position is supported by Creswell (2003) Spratt et al (2004), Blaxter et al (2003), Tashakkori and Teddlie (1998), who asserts that, it is common for researchers to use more than one method as an alternative to verify reliability and validity of the information being collected. Pragmatism as a philosophical underpinning for mixed methods studies, Tashakkori and Teddlie (1998), Morgan (2007), and Patton (1990) convey its

importance for focusing attention on the research problem in social science research and then using pluralistic approaches to derive knowledge about the problem.

Hence a mixed-methods /pragmatic research approach is adopted in this research. E-government implementation is targeted to the citizens' as consumers and recipients of government services and citizens can adopt or not adopt e-government, hence this study is not about confirming the truth or reality that e-government can either be adopted or not, but rather the study brings to light the level of participation or patronage of citizens and to add, identify factors that hinders and/or facilitates the successful implementation and citizens' adoption of the e-government innovation. Thus, neither alignment to the positivism alone nor phenomenology / interpretive would enable this study to sufficiently uncover factors necessary to deal with / bring about the questions raised per the study.

3.5 Selection of Study Area

The study was conducted in the Effutu Municipality located in the Central Region of Ghana. The Municipality's head city or town in Winneba. It is noted to house more tertiary institutions and for that reason, the municipality is inhabited by people from all over the country and beyond. These institutions include a public university, a Nursing Training college, an Advance Technical Training Institute, secondary schools (public and private) as well Senior Command staff Training College. The Municipality is found along the Gulf of Guinea with indigenes mostly fisher folks. The official languages of the Municipality are Fante and Effutu.

The Researcher chooses the Effutu Municipality as a study area because of some factors which include proximity, resource availability and purposively the municipality houses such institutions the researcher seeks to interact with.

3.6 Study Population

The target population of the research is the entire group of individuals or objects that the researcher is interested in investigating (Creswell, 2005). The study population comprised indigenes of the municipality, staff of the Municipal Assembly as well as the staff of both the Electricity Company of Ghana and The Ghana Water Company Limited. These populations are deemed to respond to questions that the study seeks to unravel. The focus on these populations is to ensure a comprehensive inclusion and views on the research topic drawing from the experiences of the respondents for a realistic assessment for rich data.

3.7 Sample Size and Technique

A sample is a unit that provides a practical and efficient means to collect data since it serves as a model of the population under study (Saunders et al, 2007) therefore sampling provides a valid alternative to a whole population because surveying an entire population was not feasible and practical for this study. According to Creswell (2007), sampling strategies are determined by the purpose of the research project. By employing them, research can build upon a subset of the population assumed to represent the whole population under study (Saunders et al; 2012). Similarly, Levy & Lemeshow (2013), posits that the main sole purpose of the sample is to enable the researcher to conduct the study to individuals from the population so that the results of their study can be used to derive conclusions that will apply to the entire population. Sampling techniques are divided into probability and nonprobability techniques. Probability sampling 'involves random sampling of units from the population at some stage in the sampling process' (Kathwohl, 1997, p.163). As well probability sampling technique houses simple random, stratified, systematic, and cluster sampling methods.

‘On the other hand, the nonprobability sampling techniques, the ones that do not include random sampling are common because of their convenience’ (Krathwohl, 1997, p.171). They include judgmental, purposive, quota, sequential, snowball, and convenience sampling methods.

This study made use of both probability and non-probability sampling to answer the research question adequately. In there, is the use of the simple random sampling and purposive sampling where staffs of the various institutions (Municipal Assembly, Ghana Water Company Limited, and Electricity Company of Ghana) were purposively sampled since they provide rich information to the study while indigenes of the municipality will be randomly sampled from various zonal areas. In all, eighteen (18) officials were interviewed from various companies. These zonal areas in the municipality included Nsuekyir/Gyahadze Zonal Council, Kojo Bedu/Low-Cost Zonal Council, South East Winneba Zonal Council, and South West Winneba Zonal Council. In all a sample size of three hundred and ninety-eight (398) respondents were provided through the equation to achieve 95% confidence in the result ($P=0.5$) with an error margin of 0.05. Using Taro Yamane's formulae (Yamane 1967), the researcher arrived at this sample having the total population of the municipality. As identified in the equation below, the sample for the study was known.

Yamane’s formula;

$$n = \frac{N}{1 + N(e)^2}$$

Where;

n= Sample Size

N= Population

$e =$ level of precision or sample error (± 5) / (0.05)

Total population of the Effutu Municipality according to the Ghana Statistical Service data in 2010 is 68,592.

This population is imputed into the Taro Yamane's formulae to derive a total sample of 398. This total will make up for appropriate sample for the study and hence a guide. The study made use of 398 respondents representing more than half of the population of the municipality.

Table 2.1 Distribution of the respondents estimated for the data collection

S/N	Area of Respondents	Number Selected
1	Nsuekyir/Gyahadze Zonal Council	95
2	South West Winneba Zonal Council	95
3	Kojo Bedu/Low-Cost Zonal Council	95
4	South East Winneba Zonal Council	95
5	Indigenes, Officials of the Municipal Assembly, GWCL and ECG	18
Total		398

In the view of Patton, purposive sampling is employed in a study because participants are selected to provide rich information for the topic under study (Patton, 2002). Simple random sampling, on the other hand, was employed to help the researcher to study the behavior of a particular population given the topic at hand and appropriate method. This gave chance to the possibility of every member in the population to have a chance of being selected in the sample (Rahi, 2017).

3.8 Sources of Data

Data for the study was retrieved from two main sources. Primary data was collected from the questionnaire and interview recordings from the field. Secondary data was

gathered from journals, books, newspaper publications, and articles on e-government and e-governance usage across the globe. Electronic sources were much utilized and it included Sage publications, JSTOR, Google Scholar, and other website materials related to the study were explored.

3.9 Research Instrument

A research instrument is a tool used to collect data, measure, and analyze data related to research interests (Teachers College, Columbia University, 2021). The research instrument is usually determined by the researcher and is tied to the study methodology. The instruments used in the data collection were interview-guide and questionnaires. An interview guide is a document containing that sets out the tone of the research discussion and marks out the parameters of the interview (Horn, 2009). Therefore, the interview guide as it is called becomes a map that the researcher relies on to arrive at its destination. Similarly, Hesse-Biber (2013), noted that interview guides can be helpful to researchers who are conducting semi-structured in-depth qualitative interviews. This in turn allows respondents to have ample time and deliberate on the questions being presented to them and hence answer them accordingly.

A semi-structured interview guide was designed for interviews to be conducted with various agencies and institutions. As opined by Berg & Lune (2004) closed and open-ended and flexible questions are likely to get more detailed responses; and therefore, provide better access to interviewees' views, understandings, experiences, perceptions, and interpretations of events. A face-to-face (one-on-one basis) interview was preferred due to the nature of the study. Participants in the study area were interviewed at their workplaces.

As aspired by the approach of the study, a close-ended questionnaire was also administered to indigenes of the municipality concerning how the researcher demarcated the area by the zonal councils. Close-ended questions were developed to obtain quantitative data from indigenes to ascertain the patronage of e-government services and therefore have secured some experience with the services provided.

3.10 Methods of Data Generation

With regards to the adopted approach which is mixed-method, concurrent data collection strategy was also adopted by this research in gathering the research data after receiving the necessary approval from participants and their respective institutions. Interviews and questionnaires were the specific data collection tools for the study and hence helping to obtain rich information from the field of study. Subsequent themes provide a detailed description of the use of the various strategies in the collection of data in the field.

3.10.1 Interview and Interview Guide

According to Robson (2002) interview is an interaction between two or more individuals to obtain some material information. Interviews may well be structured, semi-structured, and unstructured (Saunders et al, 2012). Structured interviews, involve the interviewer (researcher) designing a set of pre-defined questions, and restricting the answers, strictly within the precincts of those pre-defined questions. And with unstructured interviews, the interviewer does not necessarily develop any pre-defined questions, rather interviewees are made to answer questions regarding a wide range or area of interest. Also, with semi-structured interviews, the interviewer designs a set of pre-defined questions, but here, the interviewer (researcher) is at liberty to modify these set of questions as and when they suit the issues under discussion.

This study adopted the semi-structured method of interviews where the researcher had some set of pre-defined questions but the interviewees were also allowed the freedom to provide answers to other range of issues that came up during the actual interview process. As Saunders et al. (2012) puts it, semi-structured interviews are in the middle of structured and unstructured interviews, which are mostly used for in-depth case studies. The study conducted interviews with officials of the Municipal Assembly, Ghana Water Company Limited, Electricity Company of Ghana.

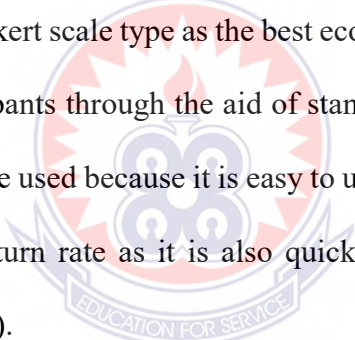
An interview guide is a document containing a list of questions that sets out the tone of the research discussion and marks out the parameters of the interview (Horn, 2009). A guide, therefore, becomes a compass that the researcher relies on to stay on track during the interview/discussion stage of the study. During the design phase, the researcher considered the diverse nature of the participants and consequently employed a language that is clear, precise, and culturally appropriate.

Participants in the interview protocol were first identified and issued consent letters requesting their permission to gather data. Once permission was granted, interviews were scheduled. They usually lasted for forty-five to an hour and consisted of semi-structured questions that participants had to answer. Following the interview, all of the interviews were recorded using a smart phone (Techno Spark 4) and transcribed. The interviewer and the participant further addressed some of the first interpretations from the interview. As a result, the data and interpretation were clarified further. The majority of the interviews took place at participants' offices, with only a few conducted via phone and zoom. In all Eighteen (18) participants were interviewed. Participants that were interviewed, were represented by pseudo names which helped in deepening anonymity and confidentiality as a core ethical consideration in research. These pseudo

names were in the form of ECG01, GWC02, MA01 which represented participants from the Electricity Company of Ghana, Ghana Water Company Limited and the Municipal Assembly respectively.

3.10.2 Questionnaire

The design of a survey instrument has an impact on the quantity and quality of responses that can be generated from the administration of the instrument. Generally, a questionnaire design considers the visual layout of the questionnaire and the ease with which it can be answered by the target respondents. Since the questionnaire was a self-administered one, it was designed to be visually appealing, with the questions couched using simple language devoid of jargon. The researcher also saw close-ended questionnaires and the Likert scale type as the best economical means to collecting data from hundreds of participants through the aid of standardized questions. Again close-ended questionnaires were used because it is easy to understand, and has the possibility of achieving a higher return rate as it is also quicker to administer and easy to fill (Bryman and Bells, 2011).

The logo of the University of Education, Winneba, is a circular emblem. It features a central sunburst design with rays emanating from a central point. Below the sunburst, there are three stylized human figures or symbols. The entire emblem is encircled by a border containing the text 'UNIVERSITY OF EDUCATION, WINNEBA' at the top and 'EDUCATION FOR SERVICE' at the bottom.

After the development of the initial questions for the study, the research supervisor and readers were given the document to review and critique. The process yielded constructive feedback on the questions. Subsequently, some of the questions were reworded, split into two, or deleted. Some questions were also added based on the suggestions of the reviewers. After the revisions were affected, the questionnaire was self-administered by the research team through a pilot study in the Effutu municipality. Based on feedback from the respondents of the pre-test, the questionnaire was finalized. Participants in the process of administering the questionnaire were given ample time to

complete the questionnaire for collection. The research team did well to explain questions to participants that needed clarification.

3.11 Data Analysis and Presentation

Based on the approach of the study, data was analyzed in its qualitative and quantitative form. Various themes fall under the main objective of the study which seeks to investigate the level of participation/ patronage of citizens in e-governance in the Effutu municipality. In this study, the researcher used Statistical Package for Social Sciences (SPSS) as a tool for generating output for a meaningful analysis of data generated from the survey. This helped the researcher to analyze most quantitative data using tables, percentages, charts, and the relationship between variables in the quest to see how they influence other variables. Through the use of SPSS, it provided and helped to make more statistical evidence like some regression analysis, hence, the study more relevant.

The SPSS generated data outputs, were then presented and interpreted together with the transcribed interviews. These together were placed within a “content analysis” of relevant available documents and literature review. Using triangulation as data analysis technique in social science research helps the researcher to make inferences by objectively and systematically identifying specified characteristics of messages and responses (Horn, 2009). The data collection, analysis, and presentation of findings by this study were also situated within the models that were adapted for the study. These were the Technology Acceptance Model (TAM) and Unified Theory of Acceptance and Use of Technology (UTAUT)

3.12 Validity and Reliability

Validity and Reliability are indicators used to evaluate the quality of research. They point out how the selected research method, research technique, and test measure

something (Middleton, 2020). Validity in research indicates how correctly a method measures what it is intended to measure. In the words of Creswell (2014), qualitative validity shows that the researcher looks for the accuracy of the findings from the perspective of the researcher, or the reader of the research report. Reliability on the other hand shows the extent to which a method can produce the same outcome when repeated given the same condition (Middleton, 2020). For assessing the validity and reliability of this study, triangulation was done using other population. This in turn. This helped to obtain accuracy in measurement between variables even in different setting.

To ensure the validity of this study, more than one source of data; existing documents, questionnaires and interviews from the field were used. This makes it possible for new information to be cross-checked against the previous ones. Reliability was also ensured by pre-testing the data collection instrument from a different population of interest. By so doing, the extent to which the method produced similar results was determined and the instrument was considered to be reliable.

3.13 Ethical Consideration

Since the research study was designed to collect information from human subjects, which involved face-to-face interaction, sharing of experience, and personal opinions, the researcher secured the necessary approval from the Department of Political Science Education in the University of Education Winneba before moving to the field to collect data through face-to- interviews and surveys. Ethical considerations were applied in the process of data collection and data handling to guarantee the confidentiality and anonymity of participants in the study. Participants were adequately briefed on the academic nature of the study, what the study involved, and how their response and data will be used. Interested participants were given consent forms to read through and

append their signatures. They were also made aware of their right to withdraw from the study at any point and to inform the researcher if there is any data, the use of which as part of the study, they are not comfortable with.

3.14 Limitations and Delimitation of the Study of Study

Some challenges faced during the conduct of the study were most especially with the public institutions. Most respondents were reluctant to give out information until further visit by the researcher. Some respondents did not also return questionnaires after several efforts by the researcher to retrieve them. Some areas like Nsuekyir/Gyahadze Zonal Council have not yet experienced a touch of e-governance through the implementation by these agencies. Another challenge encountered by the researcher was the language barrier during the collection of the field data. Covid-19 also served as a limitation in data collection. The researcher overcame these challenges through administering more questionnaires in other zonal sectors. Secondly online interviews were conducted to curb for the challenges. However, the quality of the work was not compromised and data was properly gathered, analyzed, and discussed.

The Study's scope was limited to the level of participation by citizens in e-governance in the Effutu Municipality. The study covered the Effutu Municipality. The scope of the study was further limited to agencies in the municipality like the Ghana Water Company Limited, the Municipal Assembly and the Electricity Company of Ghana. E-governance has had many government agencies and institutions serving as a medium for its implementation yet the study only focused on the Effutu Municipality and just a few governmental agencies. The Effutu Municipality as the study area was purposively selected not necessarily because of geographical proximity, time, and financial restraints. This was because of the type of study being conducted at the level of the candidate and a preferred one rather than covering the whole country.

3.15 Chapter Summary

This section presents the overall methodology employed for the study. Specifically, the chapter focused on a survey as the research design, qualitative and quantitative research approach, interpretivism as the philosophical or ontological underpinning. Officials from the Municipal Assembly, Ghana Water Company Limited, and the Electricity Company of Ghana, and indigenes of the municipality which make up to three hundred and ninety-eight (398) were sampled for the study. The use of purposive and random sampling techniques was used. Primary and secondary sources of data were also adequately utilized and the use of interview guide and questionnaire as instruments for data collection was employed. Data were presented in tables and charts as well as thematic areas for further discussion.



CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1 Introduction

This chapter presents the data analysis and key findings from the field work. The results presented were both quantitative and qualitative in response to the research questions and study objectives. The quantitative findings were presented as tables whilst the

qualitative findings were presented descriptively as direct quotations or paraphrased statements from respondents.

4.2 Demographic Characteristics of Respondents

This demographic data was collected to help the researcher and the reader understand to a large extent and comprehend how characteristic the participants were to the target population and the depth or richness of information they provided. Questions were provided in the questionnaire for respondents to answer with regards to their basic demographic information such as sex, age, and the profession of the respondents.

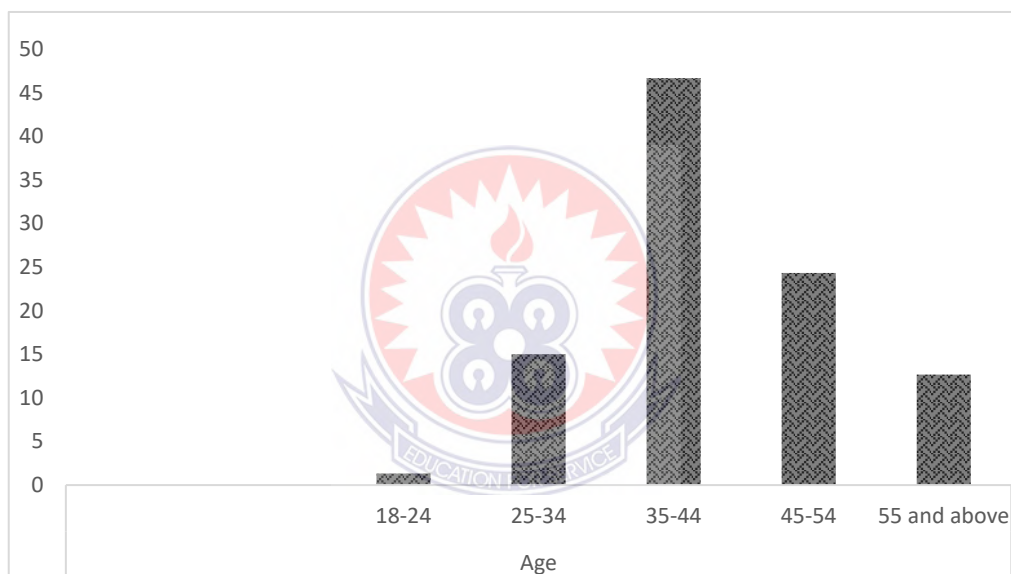


Figure 4.1: Age of respondents

Source: Field Survey, 2021

Figure 4.1 above shows the age range for respondents in the municipality. From the chart, the age range of 35-44 years had the highest of representation. This shows the age distribution of the population in the study. This was followed by the age range of 45-54 years, 25-34 years as well followed suit while 55 and above years and 18-24 years followed respectively in the distribution. The age distribution in turn shows that the municipality holds a youthful population.

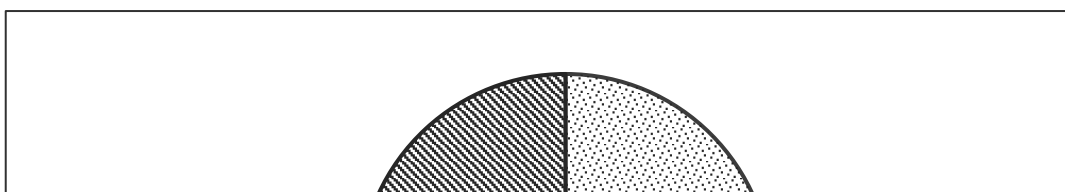


Figure 4.2: Sex of Respondents

Source: Field Survey 2021

From the survey, the female sex was dominant as against the males. It can be seen from the above chart that; the female sex was represented by 61.7% while the male sex was represented by 38%. This shows a resounding majority for the female sex as against the male sex. Predominantly, the population is characterized by a majority of the female sex than the male sex.

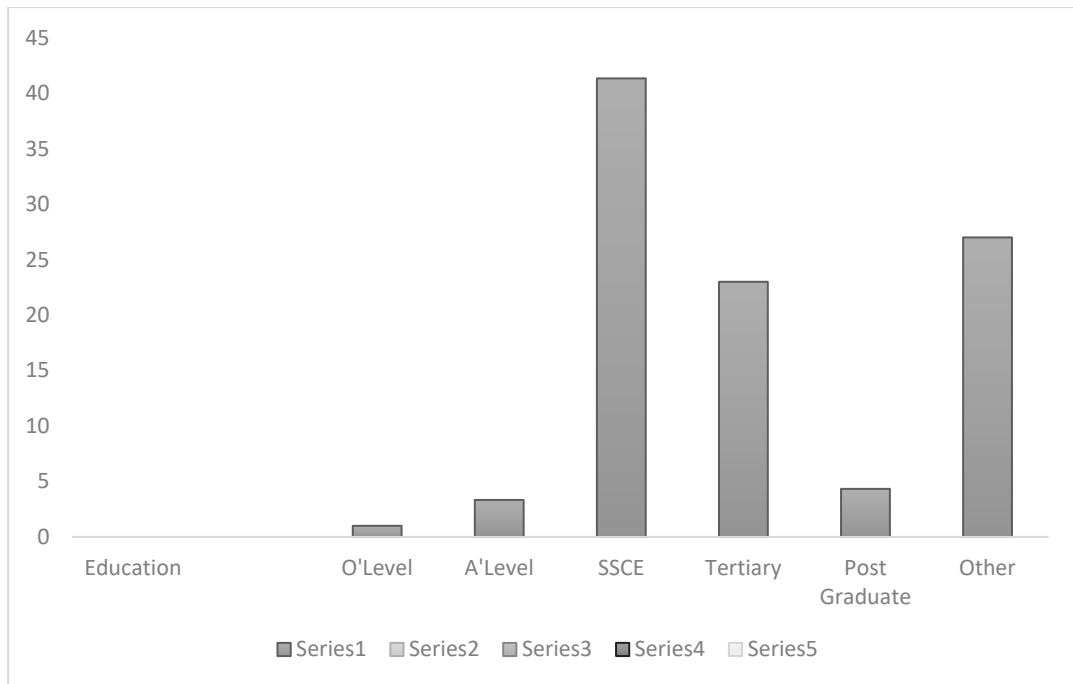


Figure 4.3: Educational Background

Source; Field Survey 2021

From the graph above, there was clear indication that the level of education of most indigenes in the municipality fall between the SSCE and others respectively, where others represented primary, JHS, and vocational training. Despite this level of education, the municipality is noted for housing tertiary institutions, hence making room for the intake of more students from different walks of life. The study established that the level of education is transforming faster than it looked formally because of the availability of more secondary and tertiary services (Figure 4.2).

Table 4.1: Profession of Respondents

Profession	Frequency	Percent Respondents (N=299)
Student	11	3.7
Business/ Trader	90	30.1
Artisans/ Farming/ Fisher folks	65	21.7
Driver	39	13.0
Public/ Civil servant	28	9.4
Teacher	37	12.4
Private worker	29	9.7
Total	299	100.0

Source: Field Survey, 2021

Table 4.1 depicts the profession of respondents in the sample frame. It is arguably true that most of the indigenes are traders and business people. From the survey, a wholesome number of respondents were either into petty trading or doing a small business to survive. The municipality is predominantly a fishing community where majority of males and females engage in such an activity from the catching of fish to the selling to the final consumer. Likewise, some indigenes are engaged in farming as well as providing transport services. From the survey, it was ascertained that majority of the population were traders and business people as followed by artisans, fisher folks, and farmers. Driving was also another popular occupation identified by the study. Another important occupation was teaching as followed by workers in the private sector and public sector respectively. Students at the time the survey was conducted was very low because schools were on break.

Table 4.2: Failure of Developers to use end-user factor design principles to permit user-friendliness of these websites

	Frequency	Percent Respondents (N=129)
Strongly agree	19	14.7
Agree	40	31.0
Indifferent	36	27.9
Strongly disagree	24	18.6
Disagree	10	7.8
Total	129	100.0

Source: Field Survey, 2021

Given table 4.2, respondents were supposed to either ‘agree’ or ‘disagree’ with the assertion that, these websites, portals, and software applications were not user-friendly because of the failure of developers to use end-user factor design principles. From the above table, 31% of answers from the questionnaire ‘agreed’ to this very statement, as 14.7% also ‘strongly agree’. Being ‘indifferent’ 27.9% claimed as such and some had it that, they were not familiar with such systems. On the other hand, 18.6% of the population strongly disagreed with that assertion while 7.8% disagreed as well.

Table 4.3: To what extent does insufficient information on gov’ts websites affect your continuous patronage or use?

	Frequency	Percent Respondents (N=242)
Large extent	46	19.0
Some extent	122	50.4
Very small extent	50	20.7
Neutral	24	9.9
Total	242	100.0

Source: Field Survey, 2021

In response to the above table, respondents were asked if inadequate information on the websites of governmental institutions could impede their patronage. A resounding 50.4% of the respondents attested that to ‘some extent’, it affects their patronage. To a ‘very small extent’, 20.7% revealed such a claim while 9.9% were neutral since they did not have a feel of such a system (Table 4.3)

Table 4.4: Which of the following government services do you perform/ patronize?

	Frequency	Percent Responses (N=195) *
Online application form	50	49.0%
Online tax payment	4	3.9%
Online passport application	25	24.5%
Online renewal of driver's license	18	17.6%
Online banking	71	69.6%
Online payment/ e-payment	27	26.5%
Total	195	191.2%

*Source: Field Survey, 2021 Multiple Responses allowed**

The table above reveals online transactions that respondents normally patronize the more. Multiple responses were allowed and it followed as such. The patronage of online services in the municipality is generally low. Most indigenes engage in online banking services as compared to any other online services made available by institutions. This was represented by 69.9% of cases and the highest case from the multiple responses obtained. There was the appreciation of online application represented by 49.0% cases followed by online payment/e-payment represented by 26.5%. Online passport application was represented by 24.5% of cases following the preceding cases. In dwindling, it was captured that online renewal of driver’s license was represented by

17.6% cases and online payment of taxes had 3.9% cases, having the least patronage (Table 4.4)

Table 4.5: Which Institutions' e-government service do you normally patronize?

	Frequency	Percent Responses (N= 154) *
Ghana Water Company	62	71.3%
Electricity Company of Ghana	70	80.5%
Ghana Immigration Service	7	8.0%
Birth and Death Registry	1	1.1%
Ghana Revenue Authority	2	2.3%
Driver Vehicle and Licensing Authority	3	3.4%
Ghana Health Service	6	6.9%
Lands Commission	3	3.4%
Total	154	177.0%

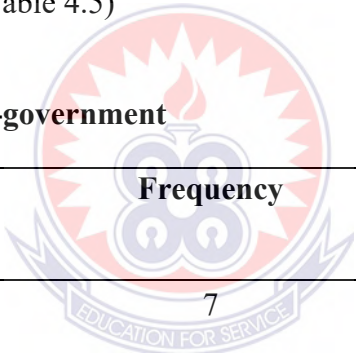
Source: Field Survey, 2021

*Multiple Responses Allowed**

Respondents were again asked to identify some institutions they normally interact with using e-governance. Various institutions within the municipality which offered e-governance services were listed for participants to select from and also given the window for multiple selections as well. It was evident that the most widely used institution was the Electricity Company of Ghana and Ghana Water Company gaining 80.5% cases and 71.3% cases respectively. This is mainly associated with the development of robust e-government systems by these agencies and the gradual acceptance by citizens in the municipality and the country as a whole. Other agencies and institutions also saw a little influence with the services they provide, the Ghana

Immigration service obtained 8.0% cases while the Ghana Health Service through the data obtained also acquired 6.9% cases through the use of the National Health Insurance Scheme system. The Driver and Vehicle Licensing Authority and the Lands Commission both obtained 3.4% cases each while the Ghana Revenue Authority and the Birth and Death Registry obtained 2.3% and 1.1% cases respectively. These data describe the gradual process and the development of e-governance, especially in the municipality. The study establishes that, most indigenes are aware of the presence of such services yet prefer to visit offices to have formal interaction with officials. This could be further associated with the trust of such systems as most respondents exclaimed on receiving hard copy receipts rather than the use of the e-transaction statements as evidence (Table 4.5)

Table 4.6: Benefits of E-government



	Frequency	Percent Respondents (N=249)
Very poor	7	2.8
Poor	21	8.4
Good	153	61.4
Very good	64	25.7
Indifferent	4	1.6
Total	249	100.0

Source: Field Survey, 2021

In aid to rate the overall performance of public service delivery in Ghana, respondents rating shows that on a whole 61.4% sees the public sector to be ‘good’ at their performance while 25.7% claim rate the public service as ‘very good’ in rendering services. A total of 8.4% rate the services delivered as ‘poor’ as 2.4% and 1.6% rate same as ‘very poor’ and ‘indifferent’ respectively. In conclusion, it reveals that the

public service is doing well so far and most indigenes are satisfied as data reflects (Table 4.6).

Table 4.7: To what extent do you see the E-government or ICT enabling a transformation in Public Institution in Ghana?

	Frequency	Percent Respondents (N=247)
Large extent	40	16.2
Some extent	121	49.0
Very small extent	63	25.5
Neutral	23	9.3
Total	247	100.0

Source: Field Survey, 2021

One benefit of e-governance is to help in transforming the way public institutions operate and deliver service. Respondents were asked questions on the extent to which they saw e-governance transforming the public service in terms of operation and service delivery. To ‘some extent’ (49.0%) respondents saw e-governance as bringing some transformation to the public service. This was followed by 16.2% of respondents rating the transformation to a ‘large extent’ and 25.5% viewing it at a ‘very small extent’ while 9.3% remained neutral to that effect (Table 4.7).

Table 4.8: What transformation has E-government brought to Ghanaians and Public Sector Institutions?

	Min	Max	Mean	Std. Dev.
E-government has made public sector institutions more open, accountable and transparent	1.00	44.00	4.2520	3.90403

Nepotism, Kickbacks, greasing the palm, middles men, and other corrupt activities are largely reduced	1.00	44.00	4.1960	3.74026
E-government helps to reduce transaction and other clerical costs associated with delivery	1.00	44.00	3.9080	2.70719
E-government has helped reduce the expenditure of acquiring public services	1.00	5.00	3.8105	1.11684
E-government is now helping public institutions to build a better relationship with the public	1.00	5.00	3.7280	1.05948
Waiting time is low in public service delivery because of less bureaucracy and speed in ICT's	1.00	5.00	3.7040	.87833
Increased efficiency in the delivery of public service because procedures and processes	1.00	5.00	3.5502	.77153

Source: Field Survey, 2021

A Likert scale of response was also determined by some benefits that respondents get from the introduction and use of e-governance. In the spirit of descending order, indigenes through questionnaire saw e-governance to have benefited the system through making the public sector more open, accountable and transparent to the general public (good governance) with a highest standard deviation of 3.90 which is further from the mean. This was followed by the reduction in Nepotism, kickbacks, greasing of palm, middlemen, and other corrupt activities with a standard deviation of 3.74, while a standard deviation of 2.70 represents the reduction in transaction and other clerical costs associated with the delivery of public services. Moving closer to the mean, a standard deviation of 1.11 stimulates the reduction in the expenditure of acquiring public services while a standard deviation of 1.05 stipulates the help in building a better

relationship with the public or clients. This was accompanied by and standard deviation of .878 and .771 representing the reduction in waiting time in public service delivery because of less bureaucracy and speed of ICT as an increase in the efficiency in the delivery of public service because procedures and processes are now streamlined (Table 4.8).

Table 4.9: Challenges of E-government/ E-governance

	Min	Max	Mean	Std. Dev.
Perceive 'usefulness' of devices/e-governments systems	1.00	5.00	4.1807	.93943
Perceive 'ease of use' of devices/e-governments systems	1.00	5.00	4.0803	.80921
Trust/ privacy of system	1.00	5.00	3.9000	.88834
E-government websites and portals are only in English/ language barrier	1.00	5.00	3.8840	.92627
Poor internet connectivity	1.00	5.00	3.8675	1.07130
Purchasing of supportive devices/ cost involved	1.00	5.00	3.8640	1.02455
lack of education on how to use such e-government software applications	1.00	5.00	3.8440	.98363
Cyber-attacks and other security threats on the use of such e-government software applications	1.00	5.00	3.8400	.89083
Culture/ tradition	1.00	5.00	3.7920	.90333

Difficulty/ skill in operating software on				
websites and applications	1.00	5.00	3.7680	.94538

Source: Field Survey, 2021

Challenges associated with the introduction of e-government/e-governance/ ICT's cannot be written off as many countries have all experienced immense pressure in the process of developing such systems in their various countries. The study seeks to answer some questions through the Likert scale. In descending order, 'perceive usefulness' had a mean score of 4.18 representing the highest mean. Subsequent mean scores follow as 4.08 represents the challenge of 'perceive ease of use', 3.90 was associated with difficulty in the 'trust/privacy of system', 3.88 dignifies the 'language barrier' with websites and portals of institutions and agencies, 'poor internet connectivity' had a mean score of 3.86 as well as the 'purchase of supportive devices/ cost involved'. Lack of education and cyber-attacks and other security threats on the use of such e-government software applications had a mean score of 3.84, while culture/ tradition and the difficulty or the skill in operating software on websites and applications had a mean score of 3.79 and 3.76 respectively (Table 4.9).

Table 4.10: How do you see the future of Ghana's public sector if e-government is continuously used?

	Frequency	Percent Respondents (N=246)
Very good	98	39.8
Good	108	43.9
Not so good	18	7.3
Do not have a future	19	7.7
Indifferent	3	1.2
Total	246	100.0

Source: Field Survey, 2021

Participants had the opportunity to rate the future of Ghana's public sector if e-government is continuously used. Majority of 43.9% see's the public sector to look 'good' if e-governance becomes a part of the system. Subsequent rating followed as 39.8% view the future to be 'very good', 7.3% respondents view it 'not to be so good' as 7.7% 'do not see any future' for these institutions. Meanwhile, 1.2% of respondents were indifferent to such prediction and would want to wait for the manifestation (Table 4.10)

Table 4.11: Do you think public authorities and institutions are doing enough in promoting e-government in Ghana?

	Frequency	Percent Respondents (N=240)
Yes	139	57.9
No	71	29.6
Cannot tell	30	12.5
Total	240	100.0

Source: Field Survey, 2021

In terms of promoting e-governance in the country, more than 50% think public authorities and institutions are doing well as against 29% of respondents declining to such assertion. Better off, 12% remained indifferent to such a claim (Table 4.11).

Table 4.11: What measures would you recommend for promoting E-government amongst citizens and the general public?

	Frequency	Percent Responses (N=399) *
Promotion of interest	185	75.2%

Increase awareness level of citizens through public sensitization programs especially in local dialects	214	87.0%
Total	399	162.2%

*Source: Field Survey, 2021 Multiple Responses allowed**

One important question with regards to this study is how e-government can be promoted among citizens and the general public. More than 50% of respondents believe this can be done by increasing the awareness of citizens through public sensitization programs especially in the local dialects while a little above 45% prefer promoting the interest of people. Multiple responses were accepted which made room for respondents to either choose both. In all, public sensitization was the best judge of the day (Table 4.11).

4.3 Data obtained from Public Institutions and Agencies

The study outlined some public institutions and agencies that were included to help in data collection. These institutions were the Municipal Assembly, Electricity of Company of Ghana, and the Ghana Water Company. All eighteen interviews were conducted as part of the formulae to sample the population and for just interviews. The rather huge remaining sample had to be represented by the indigenes of the municipality from the use of a questionnaire to collect data.

Qualitative data were obtained from these institutions and agencies. It was difficult for respondents to willingly answer questions due to certain laid down rules by their institutions and agencies. That notwithstanding, the study was able to draw a broad range of public servants in terms of their position, length of service, education, gender, age, and departments of work. Respondents were specifically made up of managing directors, human resource persons, accountants, administrators, and other public

servants who are using E-government applications in one form or the other. This presents a balance in the respondents as this also affords the study a fair opinion of the professionals' perception. The information collected is presented and analyzed to reflect the following themes: the meaning of E-government and the level of awareness among public servants; Benefits of E-government and challenges of E-government; if mostly adopted in the public institutions.

In all the study sent out 380 questionnaires and had to conduct 18 interviews making a total of three hundred and ninety-eight (398) for respondents in the study area. The collection of questionnaires summed up to three hundred (380) because the remaining questionnaires were not returned. The interviews conducted were mainly to collect data from public institutions and agencies that make use of e-government systems. With the interviews, the researcher was able to conduct all eighteen (18) interviews. This represented 100% of the response had from the interviews conducted. This translates into an appreciable 100% response rate.

4.4 Level of Patronage E-Government Services in Various Agencies

Amidst the hefty presence of e-government portals and websites available to be used by citizens by governmental institutions and agencies, the level of participation still turns to be low. It can be drawn from the data collected that, indigenes are aware of the existence of such systems but are unwilling to start operating or manipulating those systems. Popularized with such systems in the district is the e-payment system by both the Electricity Company of Ghana and the Ghana Water Company Limited. Other institutions like Driver and vehicle licensing and the Municipal Assembly provide such services.

The majority of indigenes after being asked why they do not use the electronic system to pay their bills explained that they will always prefer to have receipts on paper and also have a face-to-face transaction with the officers in charge (cultural change). In giving more insight, it will be appropriate and convenient for clients to walk their way to these various offices to be served rather than using various service providers' application software. Clients are more satisfied when they visit offices especially when there are payment conditions attached. Any other transaction will suit them on other platforms while the case of bill payment wouldn't. This has led to the reluctance of public servants and citizen-end-users alike to embrace the benefits and opportunities created by E-government for effective public administration (Ahmadu, 2006). It was further stated that the trust to use such a system is very difficult because they wouldn't be assured of the records if they use the e-payment system. These 'trust issues' dwell mostly on the network providers. In the same vein, most of these households were compound houses and for evidence's sake, they will prefer to get the hard copy of the receipt for evidence's sake.

It is interesting to note that, the payment of bills, for instance, the purchase of electricity always demands that one needs to overly try before the system processes the transaction. This notwithstanding, individuals must wait for longer hours before their power is reinstalled after payment. It sometimes demands that individuals must visit offices for such cases to be resolved. The question then is why do you have to use such a system if you will have to visit the offices again? Respondents explained that there are instances where payments don't reflect in the systems of their service providers. This deficiency will be a result of system failure when needed most by clients. Trust to use system reconciles with the trust of network creating a perception for clients in the use of these software applications.

Following the findings of Al-Awadhi and Morris (2008), their study focused on determinants that promote citizens' approval of e-government in Kuwait, their results revealed that the majority of the respondents were concerned about the technical efficacy of e-government infrastructure. Arguments can be made for the gradual piloting of such e-government procedures through state institutions, yet the acceptance by the clients remains fulcrum. It is widely evident, that the rollout of such systems needs systematic and deep involvement of users. Notably, citizens' awareness of such innovations and transformation is low and hence leading to low patronage. E-government initiatives could be successful if government authorities convince the entire stakeholders especially the end-users (Savvas, Sideridis, & Pimenidis, 2009). This is a major challenge facing developing nations. It is worthwhile, to note that different conditions exist in the various countries where such innovations are being implemented.

The use of English language on various portals and websites normally poses threat to users. Indigenes believe there should be the inclusion of local languages in conjunction with the English language. Similar study in India shows that, the use of dominant languages on the Internet poses problems for the majority of Indians who have had their early education in the regional languages (Prasad, 2012).

Language diversity, particularly in rural areas, limits the role of ICTs in e-government as translation software is still in its nascent stage. It is such similar to the situation the Effutu Municipality where the cultural setting of indigenes is very key in getting them to patronize the digital space. Many e-governance services have failed because they didn't consider this issue at all. Cultural compatibility is an issue (Narayan, 2007).

4.6 Benefits of e-governance implementation in the Effutu Municipality.

In substantiating the responses from participants of the various agencies, the surge of Covid-19 is a sign of the need for a robust ICT system. Working around this time would have been difficult if such systems were not developed. It was patent that such systems were available and there is the need to improve upon the existing ones. E-governance has been beneficial to both public and private institutions. Competition still exists between public and private agencies on the management and improvement of the e-governance agenda.

4.6.1 Participation of citizen in e-government

E-government for some few years now has helped public agencies and institutions. Thus, it has made for the easy participation or patronage of services anywhere at any time. According to Baldwin, Gauld, & Goldfinch (2011), e-government or the use of ICT in public service has facilitated greater public input into decision making and policy advice. Information is easily disseminated and reaches the general public very quickly on government proposed policies and policy implementation. It must be stated that the facilitation of 'E-participation is mainly a top-down approach, where E-government provides an important channel by which information can be obtained. Respondent GWC 01 confirmed this by assessing monthly reports which state that, patronage of the e-paying system grows by 5% every month which is currently low (GWC 01. 12/05/2021. field interview Winneba).

4.6.2 Increased transparency and accountability

The presence of e-governance has made government institutions and agencies to be more accountable and transparent. The publication of activities online on various websites and social media handles by these agencies and institutions has led to proper

scrutiny of their activities. The provision of public records online does not only ensure that a particular public institution is open and transparent but it also ensures that that particular institution is been accountable to the taxpayer and the general public (Bertot et al., 2010; Mpinganjira, 2013). Respondents ECG 02 states that “payment of bills goes directly to accounts designed for the collection and doesn’t have to go through the hands of any individual for any alteration, hence receipts are as statements states...” (ECG 02. /12/05/2021. *field interview Winneba*). Budgets and other records of public institutions are now made available online and in ensuring greater transparency, some public institutions have even gone a step further to provide avenues for one to trail the status of submitted applications for a particular public service (Mpinganjira, 2013)

4.6.3 Reduces corruption and other corrupt practices

Corruption has become a common enemy for many third-world countries. The development of e-governance is believed to offer or draw governments to good governance. Shim and Eom, (2008) posited that E-government has the potency of reducing corruption by ensuring good governance as well as strengthening reform-oriented actors and initiatives. It is evident that transactions are digitized and the provision of electronic receipts deters officers or individuals from being corrupt. Again, in a much-detailed empirical analysis of E-government and corruption, Mistry and Jalal (2012) re-echoed that corruption could best be tackled through the use of E-government. E-governance is gradually reducing corrupt acts, if not, eradicating it (Bertot et al., 2010; Pathak et al. 2009; Singh et al., 2010)

‘----“Payment of bills goes to accounts designed purposely for its collection and doesn’t have to go through the hands of individual for any alteration...” corruption has reduced (ECG 02. 12/05/2021. field interview Winneba)

4.6.4 Lowers cost of the public sector and improved work performance

E-governance reduces human and material costs in the public sector, hence enhancing effective government service delivery. They also contend that the introduction of E-government applications in public service has radically shrunk bureaucratic processes and needless paperwork, and eliminated the risk of clerical errors thereby increasing the time hitherto used in delivering public services (Mathapoly-Cudjoe, 2015). Furthermore, the findings of Njuru, (2011) with Kenya's E-government policies suggested an increased efficiency and effectiveness in public service delivery. Mpinganjira (2013) examined one of the successfully implemented E-government projects in South Africa (South African Revenue Services (SARS) e-filing program) and concluded that E-government has led to improved and enhanced delivery of government services. E-governance has helped to eliminate unnecessary bureaucratic systems that cause delays associated with public institutions. Respondents affirmed the assertion that e-government has made their agencies more effective in the delivery of services and information dissemination.

'--- The introduction of ICT at the workplace has helped me because I no longer have to print letters and deliver rather, on a click I can send a letter as an email and await feedback in the comfort of my chair...' (MA01. 09/05/2021. field interview Winneba).

4.7 Challenges of e-Governance Implementation in the Effutu Municipality

The implementation of programs and policies comes with anticipated and unforeseen challenges. These challenges range from the adoption of programs through to its implementation. One of such challenge that affects policy implementation in developing countries is resource availability. Some of the challenges associated with the implementation of e-governance includes;

4.7.1 Network and Internet Accessibility

One major problem that is experienced by all these agencies is the problem of a good networking system. Internet service providers usually have these agencies face a cut in internet service which impedes the effectiveness of work and hence results to low productivity.

Respondent MA02 stated, that, “sometimes they experience network problem that eventually delays work. Officers of the agency sometimes need good network to research or meet deadlines on task given. All eighteen respondents from all the agencies under study stated that a major challenge in the e-governance implementation process is the issue of good network and internet connectivity.

“...We have instances where the internet goes off for almost a week, hence you need to communicate and send mail. This really makes work difficult for me because purchasing data is very expensive...” (GWC 02, 07/05/2021, field interview Winneba)

4.6.2 Resource Availability and Financing

One bigger challenge of e-governance is financing. E-governance across the globe demands great attention and devotion in both human and fiscal resources. The central government is overburdened because it bears all the costs of e-governance. This makes it difficult for public institutions themselves to have control of these funds allotted for the development of E-government, and often these funds are released by governments in bits and pieces or do not even come at all (Ebrahim and Irani 2005; Nkohkwo and Islam, 2013). This makes it extremely difficult to run E-government services proficiently. The findings of a survey conducted in the USA by Norris et al. (2001), affirms the position that one of the main obstacles to an E-government initiative in public sector institutions is the lack of financial resources (Nkohkwo and Islam, 2013).

A study by Alam (2012), in Bangladesh (a developing country) reveals that financial limitation is the main barrier for implementing the E-government project in that country.

Respondent MA 01 stated that,

“... As you can see, we need a lot of logistics to help in our operations. The ones here are not enough and we need more especially laptops, printers and others...” (MA 01. 09/05/2021. field interview Winneba).

Respondent GWC 02 (junior customer care assistant) who has been with his agency for ten years requested that

“There should be a system where individuals will receive bills and other messages through fax, emails, and text messages. There must be a medium where clients will be alarmed by agencies on such developments...” (GWC 02. 07/05/2021. field interview Winneba).

The provision of resources for the implementation of any government policy or initiative faces such a challenge because the central government is the sole sponsor. As noted by (Lau et al., 2008) e-government development as a process requires lots of time, money and efforts and until these necessary conditions are put in place before its adoption, the chances of it succeeding are very minimal.

4.6.3 Training and Skill Development

Another challenge faced by these institutions is the adaptability of staff to new technologies. Many find it difficult to adapt to changes especially that of technology and this causes delay in proper e-governance implementation and use.

“The inability of staffs to adopt to the new technological devices available is also a said problem made by respondent ECG 02. Adopting and using the new devices takes much time for officials to become familiar with...” (ECG 02. 12/05/2021. field interview Winneba).

The researcher observed that the gap between developers of end-users is vast making implementation very difficult. Training programs are done within the shortest possible time frame not giving much room for further training and yet these system gets updated often. It demands that there must be more parallel and vertical collaboration between government agencies and institutions and system developers.

Most officials agree that sensitization on the use of these e-government systems is very low which eventually affects the patronage of these services by the indigenes of the municipality. They highlighted that sometimes, the vans that go around to educate the users to get short of fuel and other times vans are used for other services apart from sensitization.

Discussion

4.8 Social-Demographic Characteristics of Respondents.

Inhabitants of the municipality are mostly noted for fishing and trading as their basic occupation which is mostly found in the southern part. The relationship between trading and fishing is very close because most of these traders also turn to be fisher folks, hence trading and doing business becomes prominent other occupations in the district. Most towns along the coast in the country happen to wield the fishing occupation. A small portion of the municipality also engages in farming. Their source of income solely depends on the performance of such activities. The existence of tertiary institutions positioned at the north of the municipality has occupants to be more involved in the provision of tertiary services. Data from the study shows that the female sex is dominant than the male sex in the municipality.

The level of participation or patronage of citizens in e-governance is influenced by several factors which includes demands and perception of individuals. This goes in line with the definition of Shareef (2012) which stipulates these important factors are related

to citizens' demands and their perception to participate and utilize e-government services.

4.9 Reasons for the low Patronage of e-Governance in the MUNICIPALITY

Amidst the hefty presence of e-government portals and websites available to be used by citizens by governmental institutions and agencies, the level of participation still turns to be low. It can be drawn from the data collected that, indigenes are aware of the existence of such systems but are unwilling to start operating or manipulating those systems. Popularized with such systems in the district is the e-payment system by both the Electricity Company of Ghana and the Ghana Water Company Limited. Other institutions like Driver and vehicle licensing and the Municipal Assembly provide such services.

The majority of indigenes after being asked why they do not use the electronic system to pay their bills explained that they will always prefer to have receipts on paper and also have a face-to-face transaction with the officers in charge (cultural change). In giving more insight, it will be appropriate and convenient for clients to walk their way to these various offices to be served rather than using various service providers' application software. Clients are more satisfied when they visit offices especially when there are payment conditions attached. Any other transaction will suit them on other platforms while the case of bill payment wouldn't. This has led to the reluctance of public servants and citizen-end-users alike to embrace the benefits and opportunities created by E-government for effective public administration (Ahmadu, 2006).

It was further stated that the trust to use such a system is very difficult because they wouldn't be assured of the records if they use the e-payment system. These 'trust issues' dwell mostly on the network providers. In the same vein, most of these households were

compound houses and for evidence's sake, they will prefer to get the hard copy of the receipt for evidence's sake.

It is interesting to note that, the payment of bills, for instance, the purchase of electricity always demands that one needs to overly try before the system processes the transaction. This notwithstanding, individuals must wait for longer hours before the power is reinstalled after payment. It sometimes demands that individuals must visit offices for such cases to be resolved. The question then is why do you have to use such a system if you will have to visit the offices again? Respondents explained that there are instances where payments don't reflect in the systems of their service providers. This deficiency will be a result of system failure when needed most by clients. Trust to use system reconciles with the trust of network creating a perception for clients in the use of these software applications.

Following the findings of Al-Awadhi and Morris (2008), their study focused on determinants that promote citizens' approval of e-government in Kuwait, their results revealed that the majority of the respondents were concerned about the technical efficacy of e-government infrastructure.

Arguments can be made for the gradual piloting of such e-government procedures through state institutions, yet the acceptance by the clients remains fulcrum. It is widely evident, that the rollout of such systems needs systematic and deep involvement of users. Notably, citizens' awareness of such innovations and transformation is low and hence leading to low patronage. E-government initiatives could be successful if government authorities convince the entire stakeholders especially the end-users (Savvas, Sideridis, & Pimenidis, 2009). This is a major challenge facing developing nations. It is worthwhile, to note that different conditions exist in the various countries where such innovations are being implemented.

The use of English language on various portals and websites normally poses threat to users. Indigenes believe there should be the inclusion of local languages in conjunction with the English language. Similar study in idea shows that, the use of dominant languages on the Internet poses problems for the majority of Indians who have had their early education in the regional languages (Prasad, 2012).

Language diversity, particularly in rural areas, limits the role of ICTs in e-government as translation software is still in its nascent stage. It is such similar to the situation the Effutu Municipality where the cultural setting of indigenes is very key in getting them to patronize the digital space. Many e-governance services have failed because they didn't consider this issue at all. Cultural compatibility is an issue (Narayan, 2007).

4.10 Benefits of E-governance

E-government, according to Curtin, Sommer, & Vis-Sommer (2003) is the use of "any forms" of ICT by governments and their institutions to improve operations, public information and service delivery, citizen engagement, and public participation, and the governance process itself. This means that building ICT infrastructure by the government will not only help public institutions operate more effectively and efficiently, but will also enhance citizen participation and engagement in the long run. Respondents who are familiar with various e-government agencies' websites, portals, and software applications have high hopes for such innovation now and in the future. Some benefits include, the convenience of transacting business with e-government organizations and institutions from any location is one of the advantages. The presence of ICT tools aids in the speed and ease of work, hence reducing the amount of time spent visiting any public institution or agency. Amidst Covid-19, the reality is glaring that e-governance is one force that cannot be reckoned with. Ranking the responses from respondents shows that there is a gradual effort to move to the realm of good

governance where e-government has helped to make the public sector more open, accountable and transparent to the general public. This was the belief of many and also the faith of decreasing corrupt activities in various public institutions and agencies.

4.11 Challenges E-governance

The rollout of every government policy or agenda is associated with foreseen or unforeseen difficulties. Understanding e-Government development and exploring factors that influence e-Government development have become an interesting research topic for researchers (Scholl, 2014). Furthermore, several significant problems have been identified in existing e-Government services in developing countries.

Designers should pay more attention to service design when developing e-Government services (Huang & Brooks, 2011). Arguments have it that, the designing of these systems needs to be citizen-centered. Taking into consideration the end-users of these systems is very necessary to aid in the effectiveness of its operation. Citizens are overburdened by the importance and use of various devices, software applications, portals, and various e-services. The study discovered that the acceptance of such innovation and the motivation to use these systems were missing. To put it differently, the trust for these systems was very low, hence citizens lack the motivation to use them. Most respondents were scared of the hikes in mobile money fraud in the country as a whole and wouldn't want to gamble by using the E-pay systems.

It was also established by end users that the websites of such institutions and agencies don't have the needed information and it is mostly old stories and achievements that are displayed. Agreeing with Yildiz, information is a resource that allows the public to participate in the governance of their country and enables governments to carry on their operations (Yildiz, 2007). Others also contended on the problem of acquiring

smartphones, internet connectivity which sometimes turns out to be very poor, and purchasing of supportive devices to operate such systems.

‘Perceive usefulness of devices/ e-governments systems’ and ‘Perceive ease of use of devices/ e-government systems’ as well as trust and privacy of systems gained attention as indigenes prescribed these as major challenges that affected them. AlSoud and Nakata (2010) found that the designers of e-Government portals in developing countries did not pay enough attention to addressing citizens' needs. Consequently, this affects the consistency between what is needed and what is available for users. There is always a thwart in what government really wants from citizens and what citizens also demand from the government.

On a lighter note, a section of citizens wished that websites have options where they can have information and announcement being translated into their local dialect for their consumption. That in a way could give a better understanding of what they are to do with such systems. According to Gupta (2008), the well-established citizen-centric approach can optimize the potential benefits of an e-Government.

4.13 Chapter Summary

This section presents the overall methodology employed for the study. Specifically, the chapter focused on survey as the research design, convergent parallel research approach, pragmatism as the philosophical or ontological underpinning. The population of the study included officials from ECG, GWCL, MA and household individuals of the municipality. Three hundred and ninety-eight (398) individuals were sampled for the study. Respondents were sampled through random and purposive sampling. Primary and secondary sources of data were also adequately utilized and the study also made use of questionnaires and interview guides as instruments for data collection.

CHAPTER FIVE

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

5.1 Introduction

The final chapter of this research project presents the summary of findings, conclusion, and recommendations. The purpose of the study was to assess the level of patronage of e-governance by indigenes in the Effutu Municipality, the benefits and challenges of implementing e-governance in the Municipality.

According to the E-Government Development Index (EGDI) in Africa 2020, Ghana scored an index of 0.6 lying below Mauritius, Seychelles, South Africa and Tunisia (Varrella, 2020). In the same light, the United Nations ranks Ghana 101 out of 193 countries and 82 out of 193 E-Government Development Index (EGDI) and E-Participation Index respectively in the 2020 survey (United Nations, 2021). Comparing this to the 2018 survey shows that there has been significant improvement in online service delivery, telecommunication infrastructure index and human capital index. In 2018, Ghana was ranked, 101 with regards to EGDI while Ghana was ranked 85 with regards to the E-participation index (United Nations, 2021) This depicts a conscious effort by central government to its commitment to the growth of E-governance and E-participation.

The study further reached to assess the level of patronage of e-governance by indigenes of the municipality. The central focus of the study was to investigate the level of patronage amongst indigenes with the introduction of e-government models by various government institutions and agencies. The study took into consideration, the Municipal Assembly, Electricity Company of Ghana and the Ghana Water Company Limited. The

study further answered questions on the benefits and challenges in the implementation and the use of e-governance general.

The researcher relied on information given to him by the various institutions Ghana Water Company Limited, Electricity Company of Ghana, Effutu Municipal Assembly as well as the ordinary citizens. There was comprehensive review of literature to generate secondary data that aided in understanding the development of e-government in Ghana, the benefits and challenges in the implementation and use of e-government. Questionnaire and interview guides and personal observations were used as a tool to generate data on the issues under study. Quantitative and qualitative approach was employed in the data analysis and discussion process.

5.2 Summary of Findings

The main purpose of the study was to assess the level of participation of indigenes in the patronage of e-governance systems. The specific objectives were to: Explore the level of patronage of citizens in e-governance in the Effutu Municipality; assess the benefits in the implementation of e-governance in the Effutu Municipality and explore the challenges of the implementation of e-governance in the Effutu Municipality. A survey design through a concurrent mixed method approach was used by the researcher to answer questions raised. Hence the study was guided by the pragmatic philosophical underpinning.

Participation in local governance and most specifically e-governance in the Effutu Municipality was gradually increasing from a low point in the various agencies understudy as against a low level of awareness on the part of individuals. Indigenes in the municipality are aware or have heard of e-governance especially transactions through mobile money. The study found out that the low patronage of these e-

government systems is related to other conditions such as convenience, threat, and conceive perception as against the level of education, age, skill in operating device and application software.

The study assessed that an increase in the adoption and use of e-government service platforms by government institutions is associated with a higher level of the overall performance of government institutions.

Conversely, the study developed that, e-government system has been of help to these agencies/institutions and the indigenes. As a tool of good governance, e-governance has helped the public sector to have work done efficiently and effectively.

Additionally, it has deepened the demand for accountability and transparency and also to a large extent reduce corruption.

Some reasons associated with the low patronage of these systems is the low level of sensitization and training on the use of software applications and devices. Mediums to which citizens are sensitized is very limited and the space of time for such is not prolonged. Community members do hear mobile vans making announcement but the actual practice on how to use such a system is missing. In terms of training on the use of these technologies, officials of the various institutions demanded more as well as indigenes.

Also to note, the study found out that these government websites and portals mostly have instructions in English which makes it difficult for some individuals to use. This system paves the way to leave some individuals behind in the pursuit of implementing e-governance in the country as a whole.

Another reality to the appalling use of the e-government system by indigenes is the fear of threat and security. To be more precise, indigenes are scared of mobile money

fraud which is currently making headlines in the country. It is perceived that the use of such a system exposes an individual's confidential details to unknown users when hacked.

The heavy pressure on the central government to implement an e-government system prevents local assemblies from owning such innovations yet leaves them with no option other than just a medium to propagate this development. The provision of resources and logistics to these agencies and institutions puts the government in a tight position where these resources either delay or are not present for the effective implementation process. The supply of laptops, modems, printers, and other technological equipment is most often cumbersome in procuring them. The breakdown of such types of equipment leaves officials to their faith. The provision of such resources does not implicate solely material resources but human resources as well. Individuals employed by various agencies and institutions should be trained or have the skills to operate such systems and not employed based on merit and consideration.

Further findings of the study revealed that one major problem affecting all agencies under study and end-users was the problem of internet and network connectivity.

5.3 Key Findings

The study answered the three (3) research questions that were asked the chapter one.

The findings of the study are presented below:

- a. It was revealed that indigenes of the municipality are aware or heard of e-government but most of them do not make use of it. The patronage is gradually going high upon its inception in the various agencies under study.
- b. The study revealed that the Municipal Assembly had made conscious effort to provide an electronic means to pay property rate. This was through a mobile money number.

- c. The study further found out that, language was a problem to the use of e-government systems and applications. Indigenes complain about instructions only being in English and if there could be a system where local dialect will be used. Moreover, there should be audio bites in local dialects that will direct users on procedures.
- d. In the spirit of e-government benefits, it has served as a tool for good governance, through this, public institutions and agencies work effectively and efficiently. It has also made these government agencies and institutions to be accountable and transparent in their dealing. To a large extent, it has reduced corruption but not entirely.
- e. Some challenges include the low patronage of e-governments systems. This is due to low level of sensitization and training on the use of software applications and devices.
- f. It was also revealed that, even in the deployment of e-government services by these agencies, some areas of the municipality are exempted. These areas include the Gyahadzi and Nsuenkyere zonal Council. This is because officials still go in person to take bills. An observation made was the existence of old meters in those areas.
- g. The study also established that one predicament associated with the use of such e-government softwares and devices was the fear of threat and security. This is mostly associated to mobile money fraud.
- h. The study further confirmed that, 'perceive ease of use' and 'perceive usefulness' are conditions that individuals consider before using such application softwares and devices (e-government services).

5.4 Conclusion

The study sought to measure the level of participation of citizens in the e-governance process in the Effutu Municipality. Reviewing related literature reveals that the surge to make governance an electronic one is gradually storming various governments in the world. Regarding the first objective, which is to assess the level of participation of indigenes in the municipality, the study discovered that participation in the various agencies under study was very low amongst indigenes. Moreover, people of the municipality did not have trust for the system and preferred the old system because they are use to it. The study also discovered that sensitization on the part of government and the various agencies and institutions was also low which limits awareness creation on the use of such application systems. The use of the English language on various websites and portals was also a limit on the patronage of the e-government system.

In line with objective two which, seeks to determine the benefits and challenges of e-government revealed that, one major problem facing e-governance was the network and internet challenge for both officials for the various agencies under study. Other problems included limited resources and the adaptability of ICT by officials and indigenes to transact business. The study further outlined some benefits of e-government as making work effective and efficient. In a bigger spectrum, e-governance has led to good governance where agencies become transparent and accountable with the build-up of such systems.

The study again revealed that government needs to improve upon the system available to the various agencies at the moment and the continuity of such a system will change the face of public institutions in many years to come. The study further discovered that

local government institutions and agencies should be allowed to own such systems as well as the improvement in internet connectivity and the provision of logistics.

Finally, the bedrock of e-governance will be the need for more sensitization and training for the acceptance and adaptability of such systems.

5.5 Recommendations

E-governance as innovation has been appealed by many to continue because it has in many diverse means deepened democracy. This therefore should be implemented by the government through the various institutions and agencies that are spearheading such systems. The study hence, recommends that;

1. Sensitization and training on the use of such systems should not stop after the rollout of the program. The sensitization process should begin from the beginning and continue even after implementation.
2. The study further recommends that, more training should be done for officials and indigenes as well to help boost the interest of using such systems since digitization is now one most important medium for the development of any country.
3. Again, government agencies and institutions that have introduced e-government models must be committed to its growth and make conscious effort to sensitize and educate end users often.
4. Agencies and institutions should collaborate with their service providers to have a good internet connection and to end-users as well so they will patronize the e-governance systems.
5. Local assemblies and developers could collaborate to have part of published news and programs in video or audio form in local dialects. These will

encourage others who prefer to listen to reports and directives in local dialects to use them.



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APPENDICES

APPENDIX A

INTERVIEW GUIDE FOR PARTICIPANTS IN THE STUDY AREA DEPARTMENT OF POLITICAL SCIENCE EDUCATION UNIVERSITY OF EDUCATION, WINNEBA

INTRODUCTION

This is an academic exercise which seeks to investigate the level or patronage of e-government services by indigenes of the Effutu municipality and further determine the challenges, benefits and prospects of e-governance implementation in the Municipality. The purpose for this interview is to find out the patronage of e-government systems in the municipality and how it is affecting development. Your co-operation is therefore highly needed to empower the success of the study.

All responses will be kept confidential. This means that your responses will only be shared with research team members specifically, my supervisor and the Department of Political Science Education. We will also make sure that any information we include in our report does not identify you as a respondent.

You may withdraw from the interview at your own will and as such you are not obliged to respond to questions you feel insecure about. Thank you for the acceptance to participate in this research.

Yours Sincerely,

.....

Adamtey Andrews Nartey

Department of Political Science Education

University of Education, Winneba

E-mail: adamteynat@gmail.com

Tel: 0241464756

Participant's Statement of Acceptance

I have read/the content of this letter has been read to me in a language that I understand and that I agree to participate willingly in the study and agree to have the interview recorded.

Participant's Signature.....

Date.....

SECTION A: DEMOGRAPHIC CHARACTERISTICS OF THE RESPONDENTS

1. Age: 18- 24 25-34 35-44 45-54 55 and above

2. Gender: Male Female

3. Educational Background

O'Level A' Level SSSCE Tertiary Post Graduate Other

4. How long have you been working within the public sector?

Below 5 years 6-10 years 11-14 years above 15 years

5. Current Position/ Rank

THE MEANING OF E-GOVERNMENT AND THE LEVEL OF AWARENESS

6. Do you think there is the need to even use ICT applications (E-government) in public institutions (like your agency) to improve their operations?

7. What would be your own explanation of E-governance?

8. Would you say the level of awareness is high/low amongst the staff of your agency/ institution?

9. And what has accounted for this low or high level of awareness?

E-GOVERNMENT AND USABILITY

10. What e-government system have you adopted and is being used in your institution/ agency?

11. What are the factors that contribute or thwart the usage or adoption of ICT applications in your public agency/ institution?

12. Failure of designers/developers to use human factor design principles has been mentioned largely as the reason for the non-user-friendliness of these ICT applications. What is your opinion on this?

13. Will you be more encouraged to use websites of public sector institutions when you know or perceive it to be 'easy to use' and also useful?

YES NO

Behavioural Intention on the use of E-governance systems and tools

14. On a scale of 1-5, with one being the lowest and 5 being the highest, where 1 is strongly disagree; 2 disagree; 3 neutral; 4 agree and 5 strongly agree).

Rate how the following factor would Influence your behavior to use an information communication system or device in your institution or agency.

Key Factors	1	2	3	4	5
Performance expectancy					
Effort expectancy					
Social Influence					
Facilitating Conditions					

Moderators	1	2	3	4	5
Age					
Experience					
Voluntariness					

BENEFITS OF E-GOVERNANCE

15. What is your general view regarding Public Service delivery in Ghana?

16. To what extent do you see E-government enabling a transformation in the way your public sector institution operate and deliver services to the general Ghanaian public?

17. Do you think the patronage of e-government services (especially your institution) amongst indigenes is very high?

CHALLENGES OF E-GOVERNANCE

18. What would you say are the challenges of E-government implementation in your public agency?
19. Do you think public sensitization on the use of such systems is very low? If low why?
20. Do you think the lack of robust relationship between government and its citizen's impacts failure of e-government?
21. Do you think the lack of collaboration amongst institutions affects failure of e-government implementation and use?
22. Do you think language used on various websites and portals is a problem?

PROSPECTS E-GOVERNANCE

23. How do you see the future of Ghana's Public Sector if E-government is continuously used?
24. What do you think the institutions in public sector needs to do which will enable them contribute successfully in the e-government initiative?
25. Does your institution have an overall e-government strategy or master plan to guide its future e-government initiatives?
26. Do you think e-government initiative will enhance the government's services provision?

THANK YOU

APPENDIX B

QUESTIONNAIRE FOR PARTICIPANTS IN THE STUDY AREA

DEPARTMENT OF POLITICAL SCIENCE EDUCATION

UNIVERSITY OF EDUCATION, WINNEBA

INTRODUCTION

This is an academic exercise which seeks to investigate the level or patronage of e-government services by indigenes of the Effutu municipality and further determine the challenges, benefits and prospects of e-governance implementation in the Municipality. The purpose for this interview is to find out the patronage of e-government systems in the municipality and how it is affecting development. Your co-operation is therefore highly needed to empower the success of the study.

All responses will be kept confidential. This means that your responses will only be shared with research team members specifically, my supervisor and the Department of Political Science Education. We will also make sure that any information we include in our report does not identify you as a respondent.

You may withdraw from the interview at your own will and as such you are not obliged to respond to questions you feel insecure about. Thank you for the acceptance to participate in this research.

Yours Sincerely,

.....

Adamtey Andrews Nartey

Department of Political Science Education

University of Education, Winneba

E-mail: adamteynat@gmail.com

Tel: 0241464756

Participant's Statement of Acceptance

I have read/the content of this letter has been read to me in a language that I understand and that I agree to participate willingly in the study and agree to have the interview recorded.

Participant's Signature.....

Date.....

SECTION A: DEMOGRAPHIC CHARACTERISTICS OF THE RESPONDENTS

1. Age: 18- 24 25-34 35-44 45-54 55 and above

2. Gender: Male Female

3. Educational Background

O'Level A' Level SSSCE Tertiary Post Graduate Other

4. Profession.....

SECTION B: THE MEANING OF E-GOVERNMENT AND THE LEVEL OF AWARENESS

5. Have you heard of E-government or E-governance before? YES NO

6. What comes to mind when you hear of E-government or E-governance? **(You can tick one or more options)**

Using ICT to delivery public service

Transforming the public sector institutions through ICT and Internet enabled operations

The pursuit of a 'paperless' public service

Improving the delivery of services to the public and improving the administrative processes of government with the aid of ICT applications

7. Are you aware of Government of Ghana's commitment to increase the use of ICT in public sector institutions? YES NO

E-GOVERNANCE AND END-USERS' PERCEPTION

8. Do you think the websites/ portals of public sector institutions and agencies in Ghana are user-friendly? YES NO

Answer question 9 ONLY if your answer in QUESTION 8 was NO

9. Failure of developers to use end-user factor design principles is largely the reason for the non-user-friendliness of these government websites?

Strongly Agree Agree Indifferent Strongly Disagree Disagree

10. Do you think in general terms that information hosted by government websites are adequately sufficient? YES NO

11. To what extent does Insufficient Information on government websites negatively affect your continuous patronage or use?

Large Extent Some Extent very small Extent Neutral

12. Will you be more encouraged to use websites of public sector institutions when you know or perceive it to be 'easy to use' and also useful?

YES NO

13. Do you receive any services from government electronically? YES NO

14. If yes, which of the following services do you perform?

Online application form

Online tax paying

Online passport application

Online building license permission

Online renew a driver's license

Online banking

Online payment/e-payment

Others.....

15. Which institutions' e-government service do you normally patronage?

Municipal Assembly

- Ghana water Company
- Electricity Company of Ghana
- Ghana Immigration Service
- Birth and Death Registry
- Ghana Revenue Authority
- Driver Vehicle and licensing Authority
- Ghana Health Service
- Lands Commission
- Banking Agencies

BENEFITS OF E-GOVERNMENT

16. How would you rate the over-all Public Service delivery in Ghana?

- Very Poor Poor Good Very Good Indifferent

17. To what extent do you see E-government or ICTs enabling a transformation in the way Ghanaian public sector institutions operate and deliver services to the general Ghanaian public?

- Large Extent Some Extent Very small Extent Neutral

On a scale of 1-5, where 1 is strongly disagree; 2 disagree; 3 neutral; 4 agree and 5 strongly agree).

18. What kind of transformation has E-government brought to Ghanaians and the public sector institutions?

18.1 BENEFITS OF E-GOVERNANCE

	1	2	3	4	5
Increased efficiency in the delivery of public service because procedures and processes are now streamlined thus reducing the layers of bureaucracy					
Waiting time is low in public service delivery because of less bureaucracy and speed of ICTs					
E-government helps to reduce transaction and other clerical costs associated with delivering public services in your public sector agency.					

E-government has made public sector institutions more open, accountable and transparent to the general public. (good governance					
Nepotism, Kickbacks, greasing the palm, middles men and other corrupt activities are largely reduced in your public agency because of the use of E-government applications					
E-government is now helping public institutions to build a better relationship with the public					
E-government has helped reduced the expenditure of acquiring public services					

18.2 CHALLENGES OF E-GOVERNMENT

	1	2	3	4	5
Purchasing of supportive devices/ cost involved					
Poor internet connectivity.					
Lack of education on how to use such e-government software applications					
Cyber-attacks and other security threats on the use of such E-government software applications					
E-government websites and portals are only in English/ Language barrier					
Difficulty/skill in operating software on websites and applications					
Culture/ Tradition					
Trust/ privacy of system					
Perceive Ease of use of device/e-government system					
Perceive usefulness of device/e-government systems					

PROSPECTS OF E-GOVERNANCE

19. How do you see the future of Ghana's Public Sector if E-government is continuously used?

Very good Good Not so good Do not have a future Indifferent

20. Do you think public authorities and institutions are doing enough in promoting E-government in Ghana? YES NO I CANNOT TELL

21. What measures would you recommend for promoting E-government amongst citizens and the general public?

Promotion of internet

Increase awareness level of citizens through public sensitization programs especially in local dialects

Both

Other (specify).....

If you are a businessperson/ Company/ NGO, please answer the following questions:

22. If you are a businessperson/NGO would you be interested in applying online for registration to set up a company? YES NO

23. As a businessperson/NGO how would you prefer to transact business?

Online

Face-to-face

24. Do you as a company/ businessperson transact business with government institutions and agencies online? YES NO

25. If 'YES' What type of transactions do you have?

E-payment

Online services

E-workshops

Others.....

26. Do you as a business entity/NGO provide online services? YES NO

THANK YOU

