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ACCEPTANCE OF E-GOVERNMENT STRATEGIES BY LOCAL AUTHORITIES IN GHANA: A CASE STUDY OF ACCRA METROPOLITAN ASSEMBLY

BY

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DECLARATION

I do hereby declare that this work is a result of my own research and has not been presented by anyone for any academic award in this or any other university. All references used in the work have been fully acknowledged. I bear the sole responsibility for any shortcomings.

……. ……..

Edmund Poku Adu Date

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CERTIFICATION

I hereby certify that this thesis was supervised in accordance with procedures laid down by the University.

....

Dr. Thomas Buabeng Date

(Supervisor)

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DEDICATION

This study is dedicated to the Almighty God, who has granted me the wisdom, life and health to undertake this research.

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LIST OF ABBREVIATIONS

AMA:	Accra Metropolitan Assembly
BOP:	Business Operating Permit
DVLA:	Driver and Vehicle Licensing Authority
e-Administration:	Electronic Administration
e-Forms:	Electronic Forms
e-Governance:	Electronic Governance
e-Government:	Electronic Government
e- Marriage:	Electronic Marriage
e-Participation:	Electronic Participation
e-Service:	Electronic Service
e-Society:	Electronic Society
GIS:	Ghana Immigration Service
GRA:	Ghana Revenue Authority
GIFMIS:	Ghana Integrated Financial Management Information System
HRMIS:	Human Resource Management Information System
ICT:	Information Communication Technology
IGF:	Internally Generated Funds

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IT:	Information Technology
LI:	Legislative Instrument
MCD:	Metropolitan Coordinating Director
MCE:	Metropolitan Chief Executive
MIS:	Management Information Systems
MMDA:	Metropolitan, Municipal or District Assembly
MMDAs:	Metropolitan, Municipal and District Assemblies
PEU:	Perceived Ease of Use
POS Device:	Point of Sale Device
PRO:	Public Relations Officer
PU:	Perceived Usefulness
RGD:	Registrar General's Department
TAM:	Technology Acceptance Model
TPB:	Theory of Planned Behaviour
TRA:	Theory of Reasoned Action
UN:	United Nations

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ABSTRACT

The study adopted the case study research design and the qualitative research approach of social research in examining the acceptance of the use of point of sale devices in revenue collection and electronic registration of marriage, at Accra Metropolitan Assembly (AMA). In all, one-on-one in-depth interviews were conducted with twenty-seven (27) participants. Interpretive analyses, as well as, secondary data from the literature review, were used to analyse the results of the study. The study found that at the AMA point of sale devices was mainly adopted to collect rates, whereas the online registration of marriage was used in the registration and the verification of ordinance marriage. It was also established that apart from perceived usefulness and perceived ease of use, acceptance of these e-government strategies was influenced by social, cultural and political factors. Also, findings point to the fact that, between the two strategies, the usage of the point of sale devices is more accepted as compared to online registration of marriages. The acceptance of the usage of point of sale devices was attributed mainly to its perceived usefulness, which was also shaped by adequate training of target users. Most remarkable of factors accounting for the low acceptance of the marriage registration portal was the low level of perceived usefulness associated with it. The low level of perceived usefulness was shaped by socio-cultural issues like the norms of clients; corruption; the cost of e-government usage; and the lack of trust. The cost associated with e-government was not only identified as a challenge but also a negative factor in the acceptance of both e-government strategies. The study, therefore, recognised that to sustain e-government strategies at the AMA, there is the need for policymakers to use incentives to encourage citizens and public servants to accept e-government strategies. The study also established the necessity of training and awareness creation on e-government strategies to boost acceptance by target users.

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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

It has been established that advancement in Information Communication Technologies (ICTs) tends to affect the practices of governance (Heeks, 2001; Miscuraca, 2007). This "co-evolution of ICTs and institutions of governance" is referred to as e-governance (Rossel & Finger, 2007, p.405). However, the term e-government is an offshoot of e-governance, explained to mean, the deliberate use of all forms of ICT by governments and their institutions to enhance operations; the delivery of public information and services; citizen engagement and public participation; and the very process of governance (Curtin, Sommer & Vis-Sommer, 2003).

In Europe, North America and Asia there are shreds of evidence of the extensive application of e-government strategies (Mutala, 2008; Renken & Heeks, 2013). However, the potential of ICTs for governance in developing countries, most of which are in Africa, remains largely unexploited; and; local governance is, in general given little attention within national ICTs and e-government strategies (Morshed, 2003; Coyer, 2007; Mutala, 2008; Goldstein, 2013). The adoption of legal and institutional frameworks to receive e-government strategies in most developing countries, as well as the flow of foreign aid to developing countries to facilitate the rapid adoption of e-government, is evident in literature (Miscuraca, 2007; Morshed, 2007; Goldstein, 2013; Mensah, 2016). The attempts to ensure the rigorous adoption of e-government in public service delivery have been associated with some challenges ranging from lack of funds, low level of capacity of public servants as well as low leadership commitment to issues of e-government (Miscuraca, 2007; Osei-Kojo, 2016).

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The Ghanaian government's initiative to encourage the deployment ICTs in service delivery in the public sector has translated from speculations to reality. There has been the introduction of ICT for Accelerated Development Program (ICT4AD) in 2003; the e-government strategy in 2005 and the GeGov project in 2008, all of which sought to engage public institutions in the use of ICTs, to promote efficiency in the accomplishment of job tasks (Awortwi & Owusu, 2007; Awortwi & Amega-Serlom, 2015). The latest of such policies was the e-Ghana Project in 2008 funded by the World Bank, which sought to introduce viable e-government strategies in the public sector to improve public services delivery. As part of the e-Ghana project, some public agencies were specially captured (as a pilot measure) to use various ICTs and other e-government solutions to achieve greater efficiency, transparency, and accountability. Such agencies include; Ghana Immigration Service (GIS), the Ghana Revenue Authority (GRA), Registrar and Accountant General's Department (RAGD), Accra Metropolitan Assembly (AMA), Birth and Death Registry, Driver and Vehicle Licensing Authority (DVLA), Ghana Police Service, Ghana Tourism Authority, Minerals Commissions, Ministry of Foreign Affairs, the Parliament, and the Judicial Service of Ghana.

However, Ghana ranks 120th in world and 11th in Africa in the latest United Nations (UN) e-Government Survey (2016). The survey ranks countries based on the effective use of e-government in public service delivery. In addition, the latest World Telecommunication/ICT Development Report and database (2015), estimates that only 23.478 percent of the population of Ghana are internet users. This situation has negative implications on the adoption of e-government in Ghana, as e-government relies heavily on the usage of internet and other

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technological infrastructure that are not readily available in this part of the world (Osei-Kojo, 2016). It is not much of a surprise that the potential of e-government has not been realized in Ghana, whether on the national or local frontiers of governance (Awortwi & Amega-Serlom, 2015). Scholars cite the lack of funds, unavailability of infrastructure and the lack of understanding of e-government among citizens as some of the challenges limiting the rapid adoption and usage of e-government in Ghana (Ohemeng & Ofosu-Darkwah, 2014; Osei-Kojo, 2016).

There have been calls for the use of ICT at the local levels to enhance democracy, and to equip public service delivery (Kumar & Misra, 2007; Kumar, Misra & Mishra, 2013). However, in Ghana, the usage of the internet and its associated technologies is normally associated with urban areas because mobile network connectivity deteriorates as one moves from cities to the remote parts of the country (Mensah, 2016). It is not surprising therefore that Ghana's lowest score in the UN's e-Government Survey (2016) was recorded on the Telecom Infrastructure component as, 0.2594 out of 1. Accra, the administrative capital of Ghana, falls within the jurisdiction of the AMA. Indeed, AMA happens to be the only Metropolitan, Municipal or District Assembly (MMDA) captured on the e-Ghana project in 2008, to pilot some e-services in the Ghanaian public sector. AMA currently has an e-service portal as a result of this policy.

Researchers point to acceptance as critical to the sustainability of e-government policies rolled out in different parts of the world (Jager & Matterson, 2009; Alrashidi, 2012; Susanto & Aljoza, 2015). The favourable reception of e-government strategies by clients and public servants is necessary for the sustainability of e-government in the public sector of Ghana. The study sought to investigate the acceptance of electronic registration of marriage, and the usage Point of Sale

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(POS) devices in rate collection at the AMA, to highlight the benefits, and to reveal critical factors in the acceptance of these strategies.

1.2 Problem Statement

According to Ayee (1999), during the colonial periods in Africa, governance was structured and practised in a highly centralized manner. The situation was the same when military dictatorships replaced the immediate post-colonial governments, both the colonial and military forms of government were overly centralized and dictatorial. Over the years, the search for inclusive and participatory governance has taken the path of decentralisation (Kuazya, 2007). Reforms going on in many countries in Africa, especially since the 1990s, have sought to break with the past, by the handing down of authority to local government bodies (Egbenya, 2010).

Decentralisation in Ghana suffered during post-colonial Ghana, in the midst of the recurring military regimes. In 1988, the Provisional National Defence Council passed the Local Government Law, Provisional National Defence Council Law 207, that was modified in the 1992 constitution (Ahwoi, 2010). Article 240 of the 1992 Constitution of Ghana generally emphasized decentralisation, and made provision for administrative, political and fiscal decentralisation, it gave Districts Assemblies wide range of powers within the administrative setting. Indeed, the provision and delivery of most public goods and services were entrusted in the hands of local governments (Ayee, 2003; Amofah, 2008; Egbenya, 2010). However, scholars accept that most of the potential benefits of decentralisation, especially; participation and improved service delivery have not been fully actualized in Ghana (Ayee, 1999; Ayee, 2003; Yeboah-Assiamah, 2014; Ohemeng & Ayee, 2016).

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Gradually, e-government has become a fundamental reform tool for enhancing public administration in developing countries like Ghana where public organisations face resource constraints in the delivery of public services (Dombeu, Vincent & Nelson, 2014; Osei-Kojo, 2016; Mensah, 2016; Ohemeng & Ayee, 2016). Indeed, the deployment of e-government strategies by districts assemblies in Ghana has the potential of enhancing the inner workings of such institutions, as well as improving public service provision and delivery. E-government undoubtedly has the potential to reduce administrative and development problems faced by public institutions (Schuppan, 2008; Denhardt & Denhardt, 2009; Awortwi & Amega-Serlom, 2015).

In recent times, interactions between the state institutions and citizens have been enhanced by e-government tools like websites and other internet-based applications (Kurfalı, Arifoğlu, Tokdemir & Paçin, 2017). Since, participation is an essential component of democratic governance, e-government is a very instrumental approach in this regard (Kumar & Misra, 2007; Mutala, 2008; Kumar, Misra & Mishra, 2013). E-government has the potential of adding tremendous dynamism in reforming public administration (Kanishika, 2011).

In view of the potential of e-government strategies in boosting the effectiveness and efficiency in the delivery of public services, local authorities in Ghana have been engaged in the use of some ICTs in the accomplishment of their mandates. Miscuraca (2007) investigated the introduction of some e-government strategies by the chieftaincy institution, a prominent local institution in Ghana, but that was some ten years ago from the time of the study. Recent studies on e-government have either explored e-government at the national level (Awortwi & Amega-Serlom, 2015; Mensah, 2016) or focused on some public institutions selected to experiment the use of e-government strategies through e-Ghana project. Such institutions include Ghana

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Revenue Authority (GRA), Driver Vehicle Licensing Authority (DVLA), Registrar and Accountants General Department (RAGD) and Ghana Immigration Service (GIS) (Nsiah, 2014; Amegavi, 2015; Mathapoly-Codjoe, 2015; Nuhu, 2015; Osei-Kojo, 2016). Other studies focused on important aspects of e-government, like the funding of e-government projects in Ghana (Agyemang, 2015).

Indeed, a survey of e-government literature reveals a lacuna, with respect to the inadequacy of recent studies that explore the acceptance of e-government strategies by clients and public servants of local authorities in Ghana. However, in the quest to ensure the effective use of ICTs and internet based technologies in public institutions in Ghana, issues related to the acceptance of such e-government strategies cannot be overlooked (Mensah, 2016). Studies affirm that the sustainability of e-government projects depend largely on its acceptance by citizens and bureaucrats (Al-Awadhi & Morris, 2008; Al-Shafi & Weerakkody, 2009; Jiang & Ji, 2014).

Apart from the need for studies on e-government acceptance in Ghana, there is also the general need for depth and detail in innovation acceptance research (Van Biljon & Renaud, 2008). The extensive usage of quantitative research approach and equation modelling data analyses techniques by innovation acceptance researchers has led to the neglect of powerful and compelling human experiences in the explanation of innovation acceptance (Vogelsang & Steinhüser, 2013; Venkatesh et al, 2013).

To satisfy the need for deeper understanding into the issues associated with the acceptance of innovations, there have been calls for the use of qualitative research approach in investigating the acceptance of internet-based applications and other ICTs by individuals and organizations (Van Biljon & Renaud, 2008; Charnkit, 2010; Vogelsang & Steinhüser, 2013; Venkatesh et al, 2013). The focus of the study is, therefore, to investigate qualitatively, the acceptance of two e-

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government strategies used at the AMA: the use of POS devices in revenue collection and electronic registration of marriage at AMA.

1.3 Study Objectives

The study investigated the acceptance of e-government strategies: the use of POS devices in revenue collection and electronic registration of marriage registration at AMA. The study had some specific objectives stated below:

1. To find out the extent to which the selected e-government strategies have been employed by AMA.
2. To examine factors that influence acceptance of the selected e-government strategies by staff and clients of AMA.

1.4 Research Questions

To attain the objectives of the study, the researcher raised the following questions:

1. To what extent have the selected e-government been employed by the AMA?
2. What factors influence acceptance of the selected e-government strategies at AMA?
3. How do these factors influence acceptance of the selected e-government strategies at AMA?

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1.5 Significance of the Study

In the bid to ensure efficiency in the provision of public services, there has been the deployment of e-government strategies by some MMDAs in Ghana; however, few studies have attempted to appreciate their acceptance by target groups. With the growing discourse on e-government by scholars in the field of Public Administration, the study contributed to literature in response to the the need for researchers to appreciate bureaucrats and client's acceptance of the application of ICTs by local authorities in Ghana.

1.6 Justification for the Study

AMA was selected as the only MMDA, to pilot an e-service (electronic registration of marriage) through the e-Ghana Project sponsored by the World Bank in 2008. Again, AMA is the pioneer, so far as the use of POS devices in revenue collection by MMDAs in Ghana is concerned. The study investigated the acceptance of these strategies as public policies to reveal the major factors affecting the acceptance of such policies. In this regard, the study offered a road map to mitigating challenges encountered in the application of internet-based applications and other ICTs in the Ghanaian public sector (Jiang & Ji, 2014; Kurfalı et al, 2017).

Moreover, the study offered a deeper understanding of issues of e-government acceptance, through the use of qualitative research approach with Technology Acceptance Model (TAM). TAM has rarely been used in qualitative research; it is mostly associated with the use of principal component analysis and structural modelling techniques in quantitative studies (Vogelsang & Steinhüser, 2013). In contrast, the study satisfied the calls for the consideration of human experience, in innovation acceptance research, to ensure the examination of issues raised in

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depth and detail (Van Biljon & Renaud, 2008; Charnkit, 2010; Venkatesh et al, 2013). In all, the study serves as a great addition to the body of knowledge on innovation acceptance as well as e-government in Ghana.

1.7 Scope and Limitations of the Study

This study's scope was limited to the acceptance of selected e-government strategies at the AMA as a selected MMDA in Ghana. The study covered AMA as a selected MMDA, which makes use of e-government strategies. The scope of the research was further limited to two key e-government strategies adopted by the AMA; use of POS devices for revenue collection and electronic registration of marriage.

The researcher investigated two e-government strategies, this made room for some juxtaposition of findings. Notwithstanding, it would have been better for generalization purposes, to have involved two or more MMDAs in a multiple case study. In spite of this shortfall, objectives of the research were met, and subsequent works may build on this work to conduct comparative studies.

1.8 Chapter Organization

The research is 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, 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

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model and the conceptual framework for the study. The study methodology is explained in chapter three, whiles chapter four, focused on data presentation and analysis, as well as discussed data collected from the study sites. The last chapter summarizes findings of the study as well as highlights remarkable information discovered, drawing recommendations for future research and policymaking.

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CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter examines relevant literature on issues directly related to the research problem and objectives of the study. The chapter also explores issues relating to the concept of e-government and its practice. The Technology Acceptance Model (TAM) is discussed as well as presented as the theoretical lenses for the study of the acceptance of e-government at the Accra Metropolitan Assembly (AMA).

2.1 Overview of e-Government

E-Government has received considerable attention from scholars (Heeks, 2001; Rossel & Finger, 2007; Miscuraca, 2007; Renken & Heeks, 2013; Kurfali et al, 2017). The shift from old methods to the technological methods was initiated long before the invention of the internet in the 1990s (Browning, 1996). However, there have even been debates on the conceptual confines of the terms 'e-government' and 'e-governance'.

2.1.1 The e-Government"- "e-Governance" debate

There have been numerous debates on the topic of 'e-government' and 'e-governance' in the academic space. Like most terms in the social sciences, e-governance has no universal definition. E-Governance has been explained in simple terms as the use of Information Technology (IT) to provide information, deliver services, support organizational management systems, and or to

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offer opportunities for dialogue and citizen input (Denhardt & Denhardt, 2009). According to Denhardt and Denhardt (2009), Information Communication Technology (ICT) boosts effectiveness of governance immensely, especially in the area of communication and the generation of inputs by citizens. It makes it easier for people at the grassroots to contribute effectively to the governance process, through avenues like the email systems. They also argue that the creation of websites by government agencies gives citizens the opportunity to acquire first-hand information from policy makers, which enhances the concept of accountability and openness in the realm of governance. However, according to Dean and Stage (2000), e-governance can be likened to a 'revolution' in the processes and methods of governance and organizational interactions.

Taking into account the dynamic nature of ICTs in the context of globalization, and how these two evolutions mutually influence each other, involving along the way a growing number of stakeholders, Rossel and Finger (2007) also contend that e-governance is a very broad phenomenon, which is beyond the application of the ICTs to improve service delivery as illustrated:

> "Rather e-governance is a much broader framework for considering the co-evolution of the information and communication technologies with the political institutions, taking in particular into account how these political institutions and the state more precisely, are evolving in the context of globalization and by doing so, crystallizing all other relevant functions" (p.405).

With the extensive aid of scholarly assumptions, Mathapoly-Cudjoe (2015) distinguishes between 'e-government' and 'e-governance'. Borrowing from Riley's (2001) definition of e-governance, Mathapoly-Cudjoe (2015) explains 'e-governance' as reflection of a nation's commitment to make use of appropriate ICTs to enhance governmental interactions (both internal and external), to promote democratic expression, human dignity and autonomy,

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economic development, as well as fair and efficient public service delivery. He posits that 'e-government' is more or less as an offshoot of e-governance that aims at transforming public sector institutions through ICT and Internet enabled operations.

Similarly, Jeong (2007) also defines e-government as the use of ICT applications and other web-based applications to improve and/or enhance the efficiency and effectiveness of public sector institutions. In effect, e-government can be likened to an e-governance process that restricts itself to the deliberate institution of ICTs by management of public institutions.

AMA is a public institution deliberately using ICT in the execution of their constitutionally assigned mandates, in this light the study regarded it more appropriate to use the term "e-government" as opposed to "e-governance". In relation to this study therefore, e-government strategies are explained to mean the use of appropriate internet and web-based technologies and other ICT techniques to transform service delivery activities by the AMA, which is a public sector institution.

2.1.2 Domains of e-Government Strategies

According to Heeks (2001) the practices of e-government is associated with three main domains and these are e-Administration, e-Services and e-Society. E-Administration is geared towards the enhancement of the inner workings of the public organisation by cutting costs, managing process performance, creating strategic connections within government bodies, and granting authority. De Jager and Van Reijswoud (2008) cite the shortening of lead-time for passport applications from two weeks to one day, as an example of a goal of e-administration. The use of point of sale (POS) devices in ensuring transparency in revenue collection is also an e-administration strategy.

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E-Government can also be employed to improve the relationship between the government and its citizens by increasing the information flow between them – which, notably, involves two-way communication – and improving the service levels of government towards its citizens. This domain of e-government is termed as e-Service (Heeks, 2001). For example, the application of Marriage certification through an online platform at AMA is an e-Service.

According to De Jager and Van Reijswoud (2008), e-Society initiatives cover the e-services domain but focuses on institutional stakeholders, such as private sector service providers, other public agencies, and not-for-profit and community establishments. Similarly, De Jager and Van Reijswoud explain that e-Society concentrates on building long lasting partnerships and social or economic communities; for example, through the creation of a business community portal (De Jager & Van Reijswoud, 2008). In the implementation process the three e-government domains are treated separately, however in practice, they all involve overlapping activities as part of a primary initiative, which is to improve public service provision.

2.1.3 Stages in the Usage of e-Government Strategies

E-Government has been studied from the evolutionary standpoint, from this viewpoint, a division of e-government development process is made, dividing processes into phases. For instance, Agyemang (2015) attempts to summarize these stages in Table 2.1, according to the summary; the stages represent the level of e-government progress built on the content and service delivery offered through official websites by public institutions.

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Table 2.1 Conceptualising stages of e-Government Usage

Reference	Stage Model
Gartner (2000)	Publish - Interact - Transact - Integrate
UN (2013)	Emerging - Enhanced - Interactive - Transactional - Networked
Baum and Di Maio, (2000)	Information - Interaction - Transaction - Transformation
Layne and Lee, (2001)	Cataloguing - Transaction - Vertical - Integration - Horizontal

Adopted from Agyemang (2015:15) Stages in e-government Adoption

Some researchers identify four stages in the e-government journey (Gartner, 2000; Baum & Di Maio, 2000). Whilst others argue that there are five stages in the evolution of e-government (Layne & Lee, 2001; U.N 2013). According to Gartner (2000), in the initial stages of e-government usage, public institutions publish simple information on their websites to announce their presence online. This is usually associated with a one-way communication where the institutions only give information to citizens, however they cannot give information to authorities at this period.

Gartner (2000) consequently posits that the next stage features the interaction between public institutions and users. Information is shared in a two-way manner. Citizens can also probe public institutions and obtain resources from the website. At the transaction stage however, users can carry out financial transactions on the web page. The integration stage is where the functional units of e-government come together as one to form an integrated system. According to Baum and Di Maio (2000), at the transformation stage the functioning units or individual services would combine forces to form a one-unit system, which would serve as a one-stop portal for

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assessing all services delivered by the various departments, this they believe becomes necessary in efforts to avoid duplication of processes. For instance, a citizen can patronise e-services and e-society from the same portal.

Scholars do not give a definite timeframe for the transition from one stage to the other; they admit there can sometimes be instances where some steps are skipped (Gartner, 2000; Baum & Di Maio, 2000; Layne & Lee, 2001). The progression mostly depends on factors like the availability of financial resources and the will of the political leadership (Layne & Lee, 2001; Gartner, 2001). For instance, in Ghana most newly created governmental websites have capabilities for two-way communication, which therefore results in the skipping of the first stage (publish, information or cataloguing phase).

2.1.4 Challenges Encountered in the Implementation of e-Government strategies

As already mentioned, progress in the implementation of e-government may depend on the availability of financial resources (Miscura, 2007; Agyemang, 2015; Amegavi, 2015). Bwalya and Mutula (2015) in their assessment of the employment of ICTs in public sector institutions in Zambia concluded that most resource constrained countries fail in their efforts to use e-government strategies; most public institutions give up on e-government due to cost involved in setting up robust institutions and supporting infrastructure for such purposes. They also argue that, this situation leads to cases where institutions pay "a higher opportunity cost owing to missing out on socio-economic benefits that e-government has to offer" (p. 1183). Similarly, Miscuraca (2007) notes in his assessment of the applicability in the e-government in developing countries in Africa (Senegal, Uganda, Ghana, South Africa) that installation costs and the recurrent expenses associated with the use of ICTs (i.e. internet and email), alternative

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technologies (e.g. satellites with wireless technology and multimedia tools) should be considered in introducing ICTs, in order to better adapt to the infrastructure available and to improve community access in the local setting. e-Government projects were discovered as generally expensive to run and maintain.

Due to the inadequacy of financial resources to implement e-government policies, deficiency in the provision of infrastructure has been identified as a major barrier to e-government in Africa (Ebrahim & Irani 2005; Njuru, 2011; Mpinganjira, 2013; Mathapoly-Cudjoe, 2015). In Ghana, Miscuraca (2007) notes that the unavailability of necessary infrastructure needed for the implementation of e-government strategies is a concern for sub-governmental bodies, like District Assemblies that do not have the capacity generate funding needed to acquire such infrastructure. The issue of cost involved in buying bandwidth and other cost associated with the update of some complicated software programs were particularly noted by public servants interviewed as part of Miscuraca's work. The Government of Ghana largely controls the major sources of funds used in running the system, and it was observed that, often the budgetary allocation, earmarked for expansion and keeping the e-government mechanism up and running are often inadequate and irregular.

Still on the infrastructural challenges in e-government adoption, the erratic power supply in Ghana poses a threat to the adoption of an e-government regime (Amagoh, 2015; Osei-Kojo, 2016). With looming challenges of the energy sector of Ghana, the Electricity Company of Ghana (ECG) is unable to power up the country adequately, and to support industry and businesses with constant power supply, seasonally leading to the adoption of load-shedding exercises. Indeed, Mathapoly-Codjoe (2015) confirms that public institutions are currently incurring additional cost to acquire generator set and other plants to power these e-government

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installations. More so, the sporadic supply of power does not only upset the operationalization and functioning of e-government systems but in certain situations even damages the equipment, thus resulting in an additional cost of repair (Osei-Kojo, 2016).

It can be gathered from literature surveyed that developing countries (Ghana and Zambia) deal with issues of cost of e-Government and the lack of enabling infrastructure (Miscuraca, 2007; Awortwi & Amega-Selorm, 2015; Mensah, 2016; Osei-Kojo, 2016), all emanating from their lack of financial capacity and sometimes the low leadership commitment. This proves the extent to which financial resources are critical to the adoption and practice of e-government powered service delivery.

2.2 Usefulness of e-Government Strategies

It is entirely true considering findings from literature that e-government has the potential for harnessing the effectiveness as well as the efficiency of government in its provision of public services (Dehardt & Denhardt, 2015; Mathapoly-Codjoe, 2015; Agyemang, 2015). In this regard, public services mean the services provided by the government to inhabitants of its jurisdiction, whether directly (through public institutions) or indirectly, by funding provision of services (Ngulube, 2007; Goldstein, 2013).

Studies also prove the adoption of e-government by the extensions of government at the grassroots' level in different parts of the world (Kumar & Misra, 2007; de Jager, 2008; Ochara, 2012; Prasad, 2012; Kumar et al, 2013; Riley, 2013). The adoption of e-government by local authorities has been vindicated as an effective tool for enhancing local service delivery (Ochara, 2012; Kumar et al, 2013). Local services mean the range of public services provided by the local

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authority or district. The assortment of services may differ from a country to the other, or even comparing different local authorities in the same country. Some scholars have enumerated benefits associated with the adoption of e-government by public institutions, and these are briefly discussed.

Scholars project that e-Government sufficiently deals with the issue of the red tapeism and substantially aids in the maintenance of a seamless public service delivery mechanism (Rose, 2002; Njuru, 2011; Prasad, 2012; Mpinganjira, 2013). There is an acknowledgement of the notion that, e-government reduces redundant processes and documentation encountered in the manual setting. In Fiji, Naz (2009) confirms that e-government has been the 'secret' of improved public service delivery in the country. Prasad (2012) also refers to e-government as an important tool without which India would not derive high efficiency in service delivery, and the by-product of development. Mpinganjira (2013) concluded that e-government has led to a significant improvement in the delivery of government services, she established that e-government reduces incidents of clerical errors at the workplace, in an assessment of the South African Revenue Services (e-filing programme). Njuru (2011) also accepts the notion that the implementation of e-government strategies has made public service delivery more fluid and efficient than manual alternatives. These studies conducted in other parts of the world confirm that e-government enhances the delivery of local services.

In Ghana, Osei-Kojo (2016) also confirmed the potential of e-government in increasing efficiency in public sector institutions, however his study did not consider MMDAs. Results from these case studies (Naz, 2009; Prasad, 2012; Mpinganjira, 2013; Osei-Kojo, 2016) cannot be used for generalizations, as benefits encountered with e-government strategies may differ across different institutional and geographical confines. In view of this, there was the need to

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consider cases in the Ghanaian MMDAs to verify if indeed e-government strategies quickened service delivery.

Participation is key in local governance; an ultimate goal of decentralisation is grassroots' participation (Ayee, 1999). The use of ICT has enhanced the opportunity for citizens at the grassroots to contribute to governance (Kumar et al, 2013). For instance, in India, 'e-participation' has been used as a method of informing, keeping happy and convincing the public regarding government policies and policy implementation (Prasad, 2012). Studies in India proves 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 and Grimes (2010) also posit that the general public can better assess the actions and inactions of their leaders and bring them to book if the need be, if budgets and other records of local government units are made available for the locals to assess the spending of the local authorities. This practice will make citizens contribute their financial obligations in form or taxes and other rates, as they will have an understanding of the usage of generated funds.

Considering selected cases in the Ghanaian context, studies (Awortwi & Owusu, 2007; Mensah, 2016) claim an expansion of access and the participation of citizens as a result of e-government strategies. Since local authorities did not feature in these studies' selection of public institutions, there is a need for verification of findings in such contexts.

In most developing countries the government is the largest employer, African governments are mostly burdened with huge wage bills that hinder their capacity to embark on developmental

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projects (Miscuraca, 2007; Wagner, Cheung, Lee & Ip, 2013; Amagoh, 2015). It is projected that e-government helps to reduce the cost of running the local service institutions by reducing the size of the staff (Kumar & Best, 2006; Singh & Sahu, 2008). Mpinganjira (2013) also argued that e-government enhances internal efficiencies in the delivery of local services whiles reducing the clerical cost associated with public services especially with the cost of paper and other stationary, as e-government ensures the minimal use of paper.

In their debate on the economy of the use of e-government strategies, Awortwi and Owusu (2007) support the assertion that the initiation of e-government strategies is associated with huge financial commitments which may be difficult for public institutions in developing countries like Ghana to bear. The finding of Osei-Kojo (2016) was however not consistent with that of Awortwi and Owusu (2007). Osei-Kojo (2016) established that e-government ensures economy in the delivery of public services in Ghana. In view of the urgent calls for the reduction of public spending (Ohemeng & Ayee, 2016), the propagation of the notion that e-government reduces significantly the cost in the provision of services is insightful, and needs further investigation.

The endemic nature of corruption in developing countries is mostly associated with the bad performance of public service in developing nations (Ayee, 2000; Ohemeng & Ayee 2016). E-government has been acclaimed as a potent measure in tackling corruption. Studies in several parts of the world in the Americas, Europe and Asia confirm e-government as a valuable tool for combating corruption (Rose, 2002; Cho & Choi, 2004; Hopper, Tsamenyi, Uddin & Wickramasinghe, 2009; Pathak, Naz, Rahman, Smith & Agarwai, 2009; Bertot et al., 2010; Singh, Pathak, Naz & Belwal 2010). Specifically, Cho and Choi (2004) embarked on an empirical study to assess the weight of e-government, precisely Online Procedures Enhancement for civil application in the Seoul Metropolis in Korea. The study established a positive

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correlation between e-government and reduction of corruption, in a much-detailed empirical analysis of e-government and corruption.

Studies have failed to discuss issues of corruption in their assessment of e-government usage by public institution in Ghana (Miscuraca, 2007; Awortwi and Owusu, 2007; Mensah, 2016). These studies generally assessed the extent of e-government usage in the Ghanaian public sector. Other studies in the Ghanaian context (Mathapoly-Cudjoe, 2015; Agyemang, 2015; Amegavi, 2015) made revelations about the potency of e-government to limit corruption in the Ghanaian public sector but failed to substantiate such projections.

2.3 Critical Factors in Acceptance of e-Government Strategies

In spite of the many benefits e-government promises, studies from developed as well as developing countries prove that the adoption and implementation is not always a breeze. There are several conditions necessary for the sustainability of e-government. For instance, the acceptance by users (bureaucrats and clients), play a key role in the sustainability of e-government policies (West, 2004; Jaing & Ji, 2014). There must be a high degree of willingness on the part of bureaucrats and citizenry in general to accept the use of e-government strategies. Some scholars have reiterated the need to investigate and recognize the variables that influence the acceptance of e-government (Al-Awadhi & Morris, 2008; Yonazi, Sol & Boonstra, 2010; Mathapoly-Codjoe, 2015).

In a consideration of literature in the area of the acceptance of e-government strategies, the lacuna with regards to the apparent inadequacy of studies in investigating the acceptance of such strategies by Ghanaian bureaucrats and their clients came to bare (Mathapoly-Cudjoe, 2015). In

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spite of this limitation, the study obtained rich information from the review of works that considered the acceptance of e-government strategies in different jurisdictions. For instance, in Bangladesh, Morshed (2007) observes that the level of awareness of users (public servants and citizens) on ICTs and e-government strategies, affect their acceptance of such strategies. He therefore advocates the sensitization of government officials with regards to e-government and its benefits. He observed that e-government lacks acceptability from senior government officials at central and local levels, due to the lack of requisite knowledge in ICTs and related e-government issues. The lack of awareness and acceptance of these leaders led to lack of coordination between administrative reform and adopted e-government strategies.

Indeed, the capacity of the bureaucrats and citizens comes to question when considering the acceptance of e-government. Bureaucrats must be computer and ICT literates to ensure the effective adoption of e-government policy. Similarly, clients must be adequately proficient in ICT, to be able to assess e-government powered delivery methods. According to Cole and Kelsey (2004) the level of education of the public servants or the users of e-government services affects their computer literacy level, which in turn influences adequately the acceptance of e-government strategies. This assumption was also confirmed by a study in Qatar, which found that e-government users differ significantly in terms of their level of I.T education, and this results in their differing perception of e-government strategies (Al-Shafi & Weerakkody, 2009).

Mahmoodi and Nojedeh (2016) do not only agree that the level of I.T knowledge of users (public servants and clients) is critical to acceptance, they posit that people will accept e-government strategies if they develop trust in it. They therefore recommended free training of citizens on e-government to make them trust such innovations. Also they requested that government assures citizens of the safety of data acquired through e-government practice. Similarly, Asmah (2015)

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also confirmed trust as a key determinant of user acceptance of Electronic Cheque Clearing System in Ghana, as the study established that most clients shy away from internet related strategies in the banking industry in Ghana due to the rising number of cases of internet fraud in Ghanaian mainstream media platforms.

Linked to the issue of trust is the concern about privacy and security raise by several scholars (Jho, 2005; Miscuraca, 2007; Goldstein, 2013; Mathapoly, 2015; Agyemang, 2015). Goldstein (2013) notes that there is the potential for these e-government technologies to become surveillance tools, as there are political and ethical risks associated with the distribution of information, if they are not controlled by legislations. He posits that, these technologies become more extensive and used in new ways; therefore, scholars and institutional ethical review boards will have to consider carefully the ethical issues involved. He establishes that, the best practice in e-government is to delete information collected, such as phone numbers, text messages, and other unique identifiers. In spite of these, he is still of the view that, even this practice does not guarantee that personal data cannot be reconstituted. He notes that, there are deficiencies in this regard with the capacity of developing countries that are mostly without the full protection of civil liberties. In the United States however Goldstein (2012) notes, "the Data Bill of Rights has taken important steps to break these data out of their silos and make sure the citizens who generates them have as much control as possible" (p.103).

Apart from issues of trust and privacy concerns by users of e-government strategies, Jho (2005) proves that there must always be a synergy between the standards and outlook of users, and technical policies for public service delivery. This he believes is very critical to the acceptance of e-government as a strategy. He reports that, there have been numerous concerns on the privacy of citizens, emanating from the complicated data authorities acquired from citizens due to the

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practice of e-government that are inconsistent with the norms and traditions of some users. Jho (2005) reports conflicts between the Korean government and some civil society organizations over e-government initiatives and draws implications for e-government implementation. He reveals that, the gaps between technical standards, which idealize efficiency, and social standards, which weigh e-privacy as supreme, breed conflict.

In effect, findings of Jho (2005) suggest that if e-government policy does not support or toe the line of the worldview or culture of the target users it may eventually fail. The culture of the people of Ghana in this regard is critical to acceptance. Also, accepted way of life of residents at the AMA is deemed influential in predicting their acceptance behaviour, in the operationalization of e-government especially in the local setting of a multicultural country like Ghana, acceptance becomes a complex issue, since socio-cultural and religious belief systems differ across districts (Ohemeng & Ayee, 2016). The belief systems and the way of life of target users or clients of an MMDA for instance, is deemed crucial in predicting the acceptance behaviour with regards to e-government.

The findings of some scholars (Susanto & Aljosa, 2015; Kurfalı et al, 2017) also supported the stance that performance expectancy (perceived usefulness and perceived ease of use), social influence (culture), facilitating conditions (infrastructure) and trust of Internet have bearing on behavioural intention to use and acceptance of e-government services. They therefore recommended that, essentially, governments must promote the awareness of citizens on issues of e-government. Additionally, they called for the institution of legal structures to protect citizens as they use such services by policymakers, with the intention of convincing citizens that, the internet is a secure and reliable technology and that all the security measures are taken.

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Similarly, West (2004) assessed the consequences of e-government strategies on public services delivery in some 50 states of the United States of America to arrive at a conclusion that the policy makers were optimistic of the transformational power of e-government. Aggregate findings from this research were consistent with the notion that e-government is associated with an incremental rather than transformational change. West (2004) realized that the quality of the webpages had an impact on the acceptance of e-government strategies. He therefore suggested four steps to be taken to make the e-government regime in America more effective. Firstly, he suggests that website of public agencies must be uniform and made easily accessible to users, he identified the user-friendliness of e-portals as an essential factor that may induce citizens' acceptance of such strategies. He also called for greater cooperation on the part of government agencies so that one-stop portals and cross-agency offerings are integrated. Additionally, he called for the need for agencies to publicize their e-government portals to the public. He finally recommended that the United States government tax their citizens to generate the needed funds to train public servants and to acquire the needed hardware and software to make e-government work.

Also, Jiang and Ji (2014) examined Chinese citizens' adoption and continuance intention of using e-government web portals from the perspective of service level and service quality. Their analysis established links between web portal's service quality and citizen's acceptance of services provided. The arrival at the conclusion that, the quality of the web portal affects the adoption of the technology by the intended users, suggests that issues like Web portal's information quality, reliability, web design and functional features, security and privacy protection features, and web portal's responsiveness are very paramount to the acceptance and sustainability of e-government as well as enhancing its potential for effective service delivery.

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In addition, to 'human factors' as preconditions for acceptance of e-government, the availability of expensive technological infrastructure was identified as a key influence in the deliberation and adoption of an e-government policy. Al-Awadhi and Morris (2008) in their study concentrated on issues that promote citizen's approval of e-government in Kuwait, their results revealed that greater numbers of the respondents were concerned about the technical efficacy of e-government infrastructure. Respondents raised concerns about the capacity of the network and servers to accommodate the high amount of data traffic associated with the use of e-government, without which services will be burdened with disruptions in transactions, which may eventually result in delays in the delivery of services. It is therefore of essence to install the necessary infrastructure before the adoption of e-government.

Ruth and Schware (2008) also believe most scholars tend to assess e-government acceptance from the viewpoint of the users, which they believe is insufficient. The relevance of the structures of government and the immense role bureaucrats' play cannot be overemphasized in the acceptance of e-government. The approval of political leadership, as well as their active commitment to the course of e-government, is essential to its sustainability (Wilson, 2004).

Similarly, Ngulube (2007) posits that the political leaders and high-ranking bureaucrats in sub-Saharan Africa lack the political will to implement e-government. He established that this has had a toll on the acceptance rate of e-government among citizens. Some scholars attribute this attitude of leaders to their perception of e-government as a threat to their position, and so they reject the idea of online transactions or e-government applications (Ebrahim & Irani, 2005; Sanchez, Koh, Kappelman & Prybutok, 2003). Chau and Hu's (2002, cited in Al-Shafi & Weerakkody, 2009) posit that, policy guidelines and legal structures can restrict public servants

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as well as citizens to use e-government, giving public servants and citizens no option but to use e-government strategies.

It can be gathered from the information acquired through literature on the practice of e-government that the issues encountered with its acceptance are mostly peculiar to its setting. As observed, developed countries have issues bothering on ethical issues of e-government, and the threats it poses to privacy and security, however, developing countries in Africa, and in other parts of the world that are grappling with financial constraints and lack of needed infrastructure. In most cases, the issues encountered in these classes of countries differ significantly. It is however insightful in proving that, issues associated with favourable reception of e-government strategies differ from one context to the other. There are no 'one fits all' conditions that have bearing on e-government acceptance and therefore calls for context-specific identification for factors that influence the acceptance of e-government strategies.

2.4 Theoretical Framework

Theories feature eminently in social research. Theories and models present spectacles through which complex social phenomenon can be studied (Sutton & Straw, 1995; Stam, 2007, 2010; Rana, Williams, Dwivedi & Williams, 2013; Thomas, 2014). Rana et al (2013) established TAM as the "most widely used among theories" in e-government acceptance research by perusing 434 research articles identified manually from journals dedicated to electronic government research, such as Transforming Government: People, Process, and Policy, Electronic Government, an International Journal and International Journal of Electronic Government Research (p.26).

This section of the study explains the framework for the study, which is the TAM.

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2.4.1 Technology Acceptance Model (TAM)

The formulation of TAM is credited to Fred Davis (Davis, 1989). The TAM is based on Theory of Reasoned Action (TRA) and has been used to explain individual's acceptance behaviour.

Fishbein and Ajzen (1975) formulated TRA in an attempt to predict behavioural intentions and to develop appropriate interventions. According to TRA, two key issues determine the choice of actions and inactions taken by individuals, these are the attitude toward behaviour and subjective norm. Attitude toward behaviour is explained as "an individual's positive or negative feelings about performing the target behaviour" (Fishbein and Ajzen, 1975: 216). Which means that the beliefs of an individual concerning the consequences of his/her choices of action, determines his/her decision. Subjective norm is also explained to mean "one's motivation to comply with the expectations of perceived expectations of specific referent individuals or group as well as the perceived expectations of those specific referents alone" (Fishbein and Ajzen, 1975: 216). This also implies that the individuals situate their actions in the norms of their society, in their choice of actions.

Overview of Technology Acceptance Model (TAM)

With substantial influence from the TRA, Davis first proposed the TAM in his Doctoral thesis (Surendran, 2012). TAM sought to use the TRA in explaining individuals' acceptance of innovations. The main argument of TAM is that the voluntariness of individuals to use innovations may lead to their eventual usage. The model proposes that two main factors: Perceived Usefulness (PU) and Perceived Ease of Use (PEU) of innovations are the determinants of the degree of voluntariness to use innovations. PEU is explained as "the degree to which a person believes that using a particular system would be free of physical and mental effort"

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(Davis, 1989, p.335) whereas, PU of the system refers to "the degree to which a person believes that using a particular system would enhance his or her job performance" (Davis, 1989: 335).

The model also posits that the two factors (perceived ease of use and usefulness) may be influenced by external variables (social, cultural and political Factors). Social factors may consist of language, skills and facilitating conditions. Cultural factors refer to the ideas, customs, and the general way of life of a particular people or society. Political factors include, for instance, the impact of using technology in politics and political crisis. Davis (1989) further advances the claim that the attitude to use is concerned with the user's evaluation of the desirability of employing a particular information system application. Behavioural intention or the level of acceptance is the measure of the likelihood of a person employing the application (Surendran, 2012). Figure 2.4 presents a graphical representation of the primary constructs of the TAM.

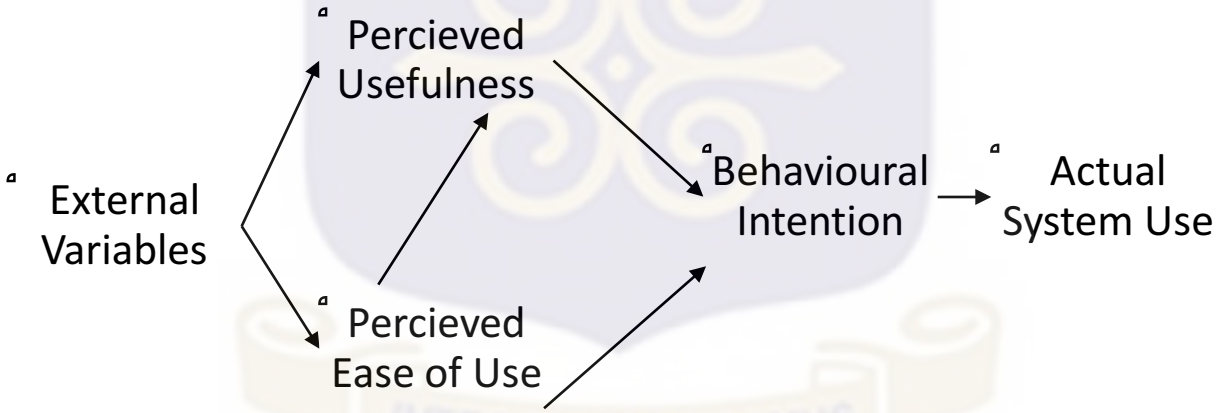


Figure 2.1: Technology Acceptance Model (TAM) by Davis (1989)

In spite of the usefulness of the TAM, it has had its fair share of criticisms by the research community. A weakness identified is the use of self-reported data by the proponents of the theory. Critics (Yousafzai, Foxall & Pallister 2007) believe that this makes the model subjective,

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rendering it unreliable in measuring the actual use of an innovation, in that, the theoretical model assumes users always have the liberty to decide whether or not to use an innovation. However, in reality, this may not be the case, as some organization may mandate users to use innovations (Chuttur, 2009). Minor concerns were also raised about the lack of specificity of external variables, as a flaw of the model (Venkatesh, Morris, Davis & Davis, 2003). Calls had been for the reformation of the model, to establish specific external variables that influence innovation adoption (Yousafzai et al, 2007). This criticism led to the modification of TAM by Venkatesh and Davis (2000) to form an extended version of TAM referred to as TAM2 to explain issues of usage of innovations in terms of the social influence; subjective norms, voluntariness, image. As well as cognitive instrumental processes; job relevance, output quality, result demonstrability, perceived ease of use (Yousafzai et al, 2007).

In spite of the formation of TAM2, TAM enjoys extensive use in the innovation acceptance studies (Rana et al, 2012; Susanto & Aljoza, 2015; Asmah; 2015). For instance, Lee, Cheung, and Chen (2005) used the TAM with the motivation theory to investigate student's behaviour towards the adoption of Internet-based learning medium (ILM). Also in investigating online shopping Zhou, Dai and Zhang (2007) developed a new model based on TAM called Online Shopping acceptance model to study online shopping behaviour. Muller-Seitz, Dautezberg, Creusen and Stromereder (2009) used the TAM to understand the acceptance of Radio Frequency Identification paying emphasis to the security-related concerns of the technology. Pikkarainen, Pikkarainen, Karjaluoto and Pahnila (2004) also designed model based on the assumptions of TAM to investigate acceptance of online banking in Finland.

Apart from the consolidation of TAM as a classic theory for investigating adoption of innovations (Pikkarainen, 2004; Lee et al, 2005; Zhou et al, 2007; Muller-Seitz, 2009), there has

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been a call for the use of "non-deterministic theories" by researchers to help identify contextual factors that shape the acceptance of innovations (Nuhu, 2015). Amongst the available frameworks available for the research, TAM guarantees more flexibility by allowing a deeper evaluation of factors to create a modified framework (Chuttur, 2009; Charnkit, 2010; Nuhu, 2015; Asmah, 2015). This makes TAM a better framework for examining ICT adoption in diverse contexts, especially "non-traditional' Information Systems Research domains like e-government (Pikkarainen et al, 2004; Zhou et al, 2007; Lee at al, 2007).

In view of the academic debates on the model, it is proven that TAM is weak in predicting actual usage of innovation, this is because, in some instances where individuals dislike an innovation, they may be forced to use it through laws, codes or legislations. However, it is proven that TAM as a very instrumental in conceptualizing the drivers of innovation acceptance. It demystifies in a simple and concise manner, key tenets underlining the decision of individuals to exhibit favourable reception to the introduction of e-government strategies. In addition, the conceptualization of innovation acceptance in its social, political and cultural context is a strength of the model that enabled its application in social research.

E-government in the context of AMA encompasses the introduction of ICTs as innovations in enhancing the fulfilment of the objectives of the MMDA. TAM provided the preliminary understanding of issues underlying the acceptance of e-government strategies at AMA. The assumptions of TAM were critical in setting the tone for the for the analysis of empirical data, the study also sought to test its assumptions in the context of AMA especially with regards to critical factors (PU, PEU and other external factors) in innovation acceptance.

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In the confines of the study, PU connotes the benefits users (staff and clients) perceive to be associated with the usage of the selected e-government strategies, in the enhancement of efficiency in job tasks and services delivery at the AMA.

The inculcation of e-government strategies does not necessarily generate positive results in all settings. The perception of public servants or citizens of the appropriateness of IT in service delivery is also key to its successful adoption (Venkatesh & Davis, 2000; Venkatesh, Morris, Davis & Davis, 2003). In relation to this idea, it is also true that, if users perceive e-government strategies to be user-friendly, then, inherently users would be more willing to adapt to the usage of that system (Mathapoly-Codjoe, 2015). According to Davis (1989), PEU represents the degree to which a person believes he/she will be free of physical and mental effort, in other words how comfortable people assume the use of e-government strategies are. This element of TAM was also critical to the study, this is because, information given by respondents on PEU of the selected e-government strategies also reveal the conditions hindering the comfortable usage of the selected e-government strategies.

2.5 Conceptual Linkages (Operationalization of Concepts)

The main assumption of TAM is reflected in the fact that, the eventual acceptance of an innovation is dependent on its perceived benefits to the user (PU), and how comfortable users perceived the use an innovation will be (PEU). Acceptance here is explained to mean the favourable reception of target groups to use e-government strategies. Davis (1989) posits that PU and PEU are influenced by some external factors (social, cultural and political factors). According to Davis (1989), no variables are mutually exclusive or unidirectional, however, they interrelate as they all influence the acceptance behaviour of target users. The lack of specificity

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of TAM is in its inability to specify these external variables. In spite of the extensive use of TAM in explaining acceptance of innovations, it has also been associated with its inability to capture specific external factors (social, cultural and political factors) that influence adoption (Nuhu, 2015). Researchers that adopt TAM mostly develop customized versions of TAM based on study findings (Lee et al, 2007: Zhou et al, 2007, Muller-Seitz et al, 2007).

Figure 2.3 on page 35, details how various factors come to play, to influence the acceptance of e-government strategies at the AMA. For the purposes of the study, apart from PEU and PU; trust, cost, and level of ICT training were found from e-government literature as social variables that have influence on the acceptance of the user of the selected e-government strategies. Cultural factors comprised issues of organizational culture and the outlook of Citizens. A political factor established to affect the acceptance of e-government strategies was political will. Based on the literature review on e-government acceptance, these factors were found to interact with each other to influence the acceptance of e-government by public servants and clients at public institutions like the AMA.

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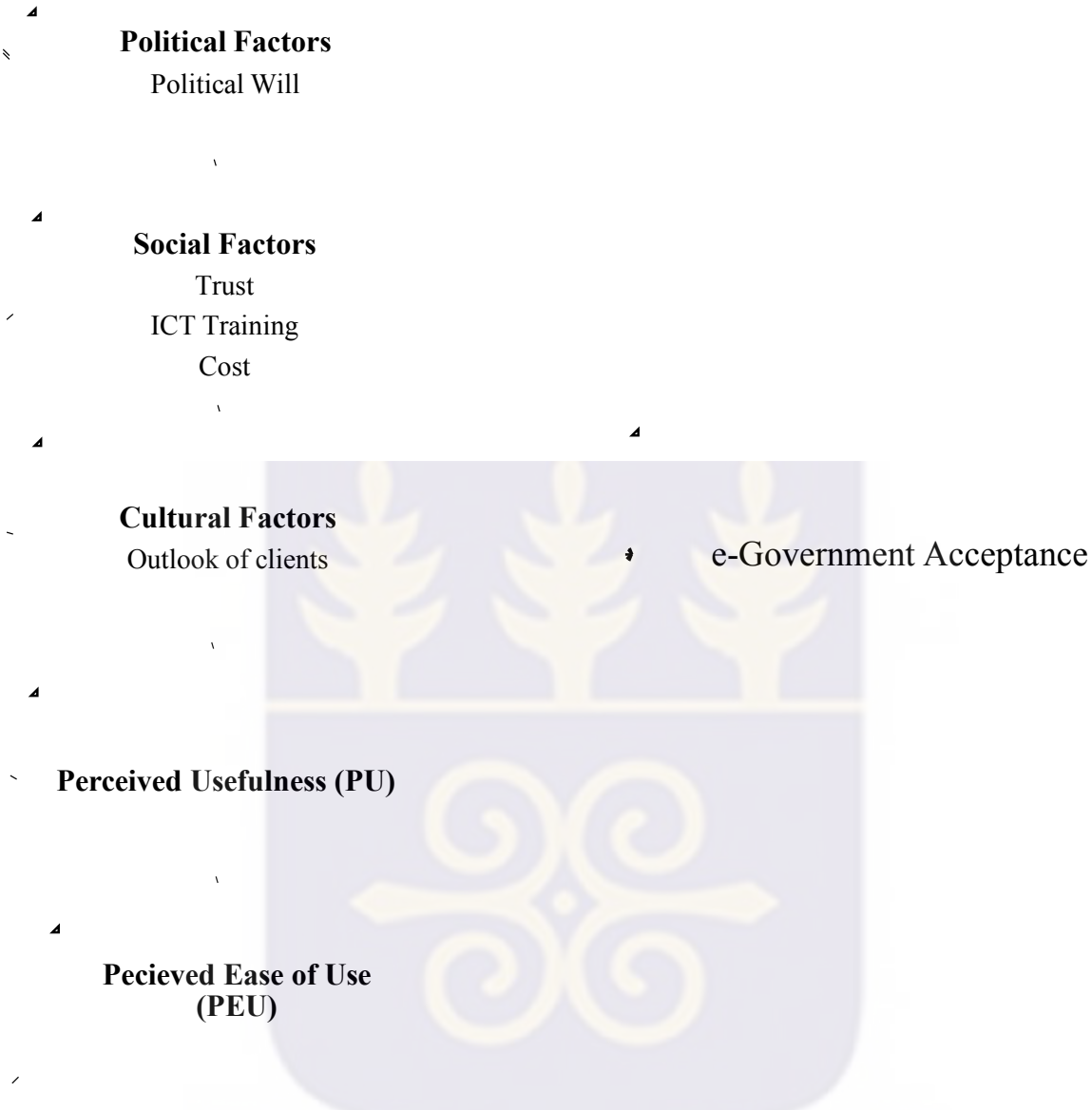


Figure 2.2 Conceptual Framework

2.5.1 Social Factors

TAM proposes that user acceptance of innovations is influenced by some external variables which include social factors. Social factors are the facts and experiences in a societal setup that affect an individual's personalities and lifestyles. Social factors may consist of language, skills and facilitating conditions (Davis, 1989). In relation to the study, Trust, culture, cost and, ICT training, these factors are consequently discussed.

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i. *Trust*

Trust has been tipped as a key driver for adoption and acceptance of innovations (Lui & Rodger, 2003; Reid & Levy, 2008; Asmah, 2015). Trust can simply be explained in the context of the study as the degree of certainty a user has that the purpose for which he/she is using the e-government strategy will be fulfilled.

ii. *ICT Training*

There have been claims that the user characteristics such as level of educational and ICT training have influence on their acceptance of e-government strategies. Studies including Cole & Kelsey (2004), Al-Shafi & Weerakkody (2009) and Charnkit (2010) all support this assertion. The researcher established the level of ICT knowledge of target groups as an essential contributing factor to acceptance of e-government strategies at the AMA.

iii. *Cost*

Financing costs has mostly established as a challenge in most e-government adoption research, targeting the developing country setting (Miscuraca, 2007; Agyemang, 2015; Amagor, 2015; Mathapoly-Cudjoe, 2015). Financing cost in relation to study is the total expenses associated with the use of the selected e-government strategies by the AMA. In reference to this study, which targeted the acceptance of e-government strategies at the AMA, the researcher established through consulted literature, that the associated financial cost of e-government strategies to target groups was a key element contributing to the acceptance of the strategy, and not just a challenge of e-government usage.

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Apart from the cost of from the institutional perspective, the personal agenda of individuals come to play when they are considering the acceptance of innovations. In this vein, the associated cost was deemed an influential phenomenon in explaining the acceptance of innovations. Cost from the perspective of the target user in the context of the study, refers to the total expenses associated with the use of the strategy to an individual. This included the cost of internet and other equipment required for target users to use e-government strategies.

2.5.2 Cultural Factors

Culture is the way of life of an individual and it represents the ideals, customs, and social behaviour of a class of individuals. E-Government acceptance literature identifies the norms of people affects their acceptance of e-government (Jho, 2005).

Culture of Clients

The personal outlook/culture of clients; ideals, customs of a target population of the selected e-government strategies have been linked to the acceptance of e-government strategies (Jho, 2005; Weerakkody & El-Haddadeh, 2009). Goldstien (2013) also agrees that the consistency of the practice of e-government with the worldview of its intended users is critical to issues of acceptance.

Scholars attest to the fact that, the norms and ideas existent in institutional setup can be an influence to acceptance and eventual use of innovations (Kumar & Misra, 2007; Charnkit, 2010; Awortwi & Amega-Serlom, 2015) In this regard the organizational norms existent in the AMA played a significant role in acceptance of the selected e-government strategies.

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2.5.3 Political Factors

An external factor projected to be an influencer in the acceptance of innovations was political in nature. Davis (1989) projected that the political circumstances in the context of innovation application are critical to its acceptance. For instance, political regimes may have issues of e-government acceptance by citizens due to the potential of data acquired from e-government programs to be used as surveillance tools. In this regard, it is established that the political arrangement in the practicing organization is critical to the acceptance of e-government strategies (Sanchez et al, 2003; Ruth & Schware, 2008; Goldstein, 2013). A political factor found to be crucial in the acceptance of the selected e-government application in the context of the study was political will, which is explained subsequently.

Political Will

Political will in the confines of the study essentially means the commitment on the part of a government and their agents to carry out or support e-government strategies. The ultimate authority in an organization setting is deemed very influential in the acceptance of e-government strategies according to scholars (Chau & Hu, 2002; Ebrahim & Irani, 2005; Ngulube, 2007). Political leadership at the AMA include the key decision makers of the Metropolitan Assembly, including Metro Chief Executive (MCE), and members of the General Assembly. Technocrats like the Metro Coordinating Director (MCD) and the Department Heads are bound by the decisions of the political leadership. It is assumed that the actions and inactions of Political leadership have effects on the acceptance of e-Government strategies.

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CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter discusses the procedures and methods undertaken by this study. It essentially, explains the philosophy that underpins this study and the adopted research design, as well discusses the approach used in gathering and analysing data that was generated for the study. Issues regarding ethical consideration as well as validity and reliability of the information gathered are adequately discussed.

3.1 Research Paradigm

According to Rossman and Rollis (1998), there are two main paradigms that guide research, these are positivism and interpretivism. Whereas quantitative researchers favour positivist paradigm due to the belief in objective truth, interpretivists prefer qualitative methods due to the premium they put on relativism and subjective thinking. Interpretivists posit that reality can be fully understood only through the subjective interpretation of and intervention in reality (Saunders, Lewis and Thornhill, 2012). The study adopted the interpretivist research paradigm as the guiding principle for the study because it was centred on the acceptance of e-government strategies which is behavioural in nature. Human behaviour is unpredictable, as it changes based on differing circumstances, again reality is not fixed, and the perceptions of individuals on common issues may be logical but divergent. Due to the behavioural nature of acceptance, the study realised the need for the appreciation of independent opinion of respondents. The exploration of views beyond the objective truth in issues related to the acceptance of e-

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government strategies at the AMA required the interaction with respondents in their natural environment to ascertain their subjective opinion and personal experiences.

3.2 Research Design

According to Horn (2009), research design reveals how a phenomenon can be studied. The study adopted the case study design of social research. A case study design is an "empirical inquiry that examines a contemporary phenomenon in depth and within its real life context, when the boundary between the phenomenon and the context are not defined" (Yin, 2009: 16). The case study design is limited in the sense the findings are not generalizable because one case is not a representative of a larger case. The emphasis on depth is a key strength of a case study method and deemed appropriate for this study because the researcher sought a deeper understanding of the prominent factors that came into play in the acceptance of e-government strategies at the Accra Metropolitan Assembly (AMA). The research was a single case study, which collected data with the aid of semi-structured interviews, the conduction of interviews gave the researcher the opportunity to understand better, the actions and perceptions of individuals as well as meanings even whiles communication was being made. Issues related to the acceptance of e-government strategies are complex. There was the need for a deeper understanding of issues of acceptance of e-government strategies. A large number of previous studies on e-government adoption had advanced claims based on the positivist school of thought, which have omitted rich experience of target groups of e-government strategies (Venkantesh et al, 2013, Rana et al, 2013). The adoption of the case study design was partly influenced by the gap in innovation acceptance literature which pertains to the dominant usage of surveys and quantitative techniques, the study targeted at obtaining a deeper understanding of the views of staff and

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clients of the AMA, through in-depth interviews which lasted about 45 minutes to an hour. These interviews conducted in March 2017, enabled the researcher to interrogate respondents adequately to ascertain their true intentions and underlying reasons for their acceptance or rejection of the selected e-government strategies.

The status of AMA as the host of the city of Accra, which is the administrative capital of Ghana positions it as a good setting for the use of e-government strategies. At the AMA, there is fairly adequate technological infrastructure for usage of e-government, as compared to any MMDAs in remote areas in Ghana. The adoption of this single case was necessary because AMA was the only MMDAs specially selected under the e-Ghana project to implement the electronic registration of marriages. Also, the AMA doubled as the pioneer in the ranks of MMDAs so far as the use of POS in the revenue collection is concerned. In all, both e-government strategies had been used at the AMA for a period of five (5) years, this made it ideal for e-government acceptance studies.

3.3 Units of Analysis

According to Yin (2009) a case may exhibit differing characteristics, a case may be concrete like a person, a place, a device, or less concrete like a relationship, a project, or a process. The units of analysis of this study are the selected e-government strategies at the AMA, these included electronic registration of marriage and the usage of POS devices in revenue collection.

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3.3.1 Study Area

Ghana has two hundred and sixteen (216) Metropolitan Municipal and District Assemblies (MMDAs), AMA is one of the sixteen (16) MMDAs in Greater Accra. AMA hosts the administrative capital of Ghana, under its Osu-Klottey Sub Metro. The AMA was established in 1898. In spite of its long existence, it has gone through many changes in terms of name, size and number of Sub-Metros since its creation. AMA attained its current status and authority from the Local Government Act, 1993 (Act 462), the Local Governance Act, 2016 (Act 936) and under the Legislative Instrument (L.I) 2034.

A Metropolitan Chief Executive (MCE) appointed by the president and confirmed by the General Assembly, is the representative of the president at the AMA. He is responsible for the day-to-day performance of executive functions at the Assembly. The MCE works with the Metropolitan Coordinating Director (MCD), who is a technocrat who serves as the administrative head of the Assembly. The MCD reports directly to the MCE and is responsible for the day-to-day Administration of the Assembly regarding the implementation of the decisions and plans of the Assembly.

According to section 12 of the Local Government Act 2016, AMA as a metropolitan assembly is the political and administrative authority in its jurisdiction, therefore the AMA is responsible for promoting local economic development and providing guidance, giving direction to and supervising other administrative authorities in the district as may be prescribed by law. AMA performs numerous functions all linked to their ultimate goal of creating a favourable atmosphere for development in the metropolitan assembly.

AMA is the most populated MMDA in Ghana according to the 2010 population census. The website of the AMA states its resident population is about 4 million, even though the 2010

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Population and Housing Census pegs resident population numbers at about one million six hundred and sixty-five thousand and eighty-six (1,665,086). It is also projected that Accra and its environs experience a daily influx of more than one (1) million people who commute to the city for various socio-economic activities. Due to the huge population and land area of about 137 square kilometres, the Assembly is further divided into sub-metros for administrative purposes. The Assembly now has ten (10) sub-metros namely Ablekuma Central, Ablekuma North, Ablekuma South, Ashiedu Keteke, Ayawaso Central, Ayawaso East, Ayawaso West, La, Okaikoi North, Okaikoi South and Osu-Klotey. The map of AMA detailing the geographical confines of each sub-metro is labelled "Appendix D" in the appendices of the study.

The huge numbers with regards to population create a difficulty for the assembly with regards to the provision of public services. There is greater pressure on AMA in area of the provision of public services, there is also a greater responsibility AMA with regards to revenue collection activities. There is an undying need for the AMA to consistently discover ways of being more effective and responsive to the numerous needs of their overgrowing population. The deliberate use of ICTs has the potential enhancing the delivery of public services and the overall administration of the district. However, the formal use of ICTs to enhance efficiency and effectiveness arguably became a glaring reality in 2008, with the initiation of the e-Ghana project. The Government of Ghana introduced this project with funding from the World Bank. The electronic registration of marriage was piloted at the AMA through this policy. As part of the e-Ghana project, AMA was one of eleven (11) government departments and agencies selected to pilot e-government projects to better deliver improved services to the citizenry in 2012. Similarly, the deployment of the use of POS devices at the AMA was also initiated in

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2012. This was in response to calls to ensure transparency and to check embezzlement of funds in the collection of rates (AMA Annual Report, 2012).

The objective of these projects were in conformity with the vision the World Bank to assist the Government of Ghana in generating growth and employment, by leveraging ICT and public-private partnerships to, a) Develop the IT Enabled Services Industry b) Contribute to improved efficiency and transparency of selected government functions, through e-government applications (World Bank, 2017).

3.3.2 Sources of Data

According to Yin (2009), primary data is firsthand information collected by the investigator for a specific study, whereas secondary data is sourced from previously undertaken studies. The study adopted both primary and secondary data sources for the study, which made room for triangulation. The use of secondary data helped the researcher to save money, time and resources whereas, primary data was used to confirm or contradict the secondary data. Primary data was acquired in the form of interviews. Secondary data sources such as books, reports, government policy publications, articles from online journals, together with other Internet sources were consulted. The websites of AMA and NITA were also instrumental sources of secondary information for the study.

3.3.3 Data Collection Procedure

The study commenced with the consideration of secondary data in the form of books, and from online and print journals. Primary data was then sourced through interviews with staff and clients of the AMA. The interview guide used was designed to reflect the thematic areas of the the study

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so as to limited the information giving by the respondents to the aims of the study. A pre-test was conducted with some employees of AMA in January, 2017 before the actual data collection in March, 2017. After the pre-test, the researcher got to know how to ask questions so as to elicit the right response.

Data collection was done in a months' period. In all, the researcher made 10 visits to the study sites in March 2017. With the aid of the interview guides, semi-structured one-on-one interviews were done to primary data from public servants working at the offices AMA at Asafoatse Nettey Rd, Accra, and National Information Technology Agency (NITA) at the Haile Selassie Street, Accra. Similarly, interviews were also conducted with clients of the AMA, which included clients of the Marriage Registry and ratepayers at the premises of AMA. Most interviews were conducted in English. However, a client of the marriage registry was interviewed in Twi due to her inability to communicate effectively in English. This interview was later translated and transcribed in English for the purpose of analysis. On the average interviews lasted a period of thirty (30) minutes. Where necessary, interviewees were contacted to clarify any unclear information given through telephone calls.

To make the data collection easier, tools such as recorders, field log, pens and others were used so as to provide a detailed account of the process, and the transcription and analysis of the data. Due to the nature of the study, observations were recorded in detail in addition to experiences and perceptions throughout the research process.

3.3.4 Target Population

The target population of a research is the entire group of individuals or objects that the researcher is interested in investigating (Cresswell, 2005). The target population of the study included the

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staff of NITA, as well as the staff and clients of AMA, who were capable of giving information to satisfy the objectives of the study. NITA was targeted because it is the organization responsible for the creation of an enabling environment for effective deployment and use of ICT by all public sector institutions in Ghana, through the implementations of sound policies and regulatory framework. Staff of the Management and Information Services department of the AMA were also targeted as respondents due to their role in coordinating and facilitating the implementation of electronic registration of marriage and the usage of POS devices at the AMA. Similarly, staff of the Revenue Department were interviewed due to their role as the users of POS devices in the collection of revenue. Staff of the Human Resource department, Marriage Registry, Budget Department, and the Public Relations department were also targeted for purposes of validation due to their collaboration with the MIS department in the performance of their functions.

The study also captured clients of the Marriage Registry as targets, and this was informed by the need to solicit the opinion of the targeted users of the electronic registration of marriage. Ratepayers at the AMA were also targeted due to their direct engagements with the officials of the Revenue department in the collection of rates with POS devices.

3.3.5 Sample Size

The target population (staff and clients of AMA) of the research was too large to be exhausted during data collection, therefore a sample was chosen. According to Yin (2009), there is no specific formula for calculating the sample size for qualitative research, however, what is critical is that the data collected reaches the point of saturation. Saturation here means the point during the collection of data where engaging new respondents will not generate more information

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related to their research questions. During this study, the point of saturation was reached when respondents (clients and staff of AMA) seemed to be repeating the views of other respondents already interviewed.

In all, twenty-seven (27) respondents for the study. Fifteen respondents comprised public servants working in departments at AMA and NITA, directly involved in the implementation of the e-government strategies.

Table 3.1 Distribution of Staff Respondents based Departments

Department	**Number of Respondents**
Management and Information Systems	3
Revenue	7
Human Resource	1
Marriage Registry	1
Public Relations Department	1
Budget	1
NITA	1
Total	15

Author's own construct

The study also found the viewpoint of clients of the marriage registry essential to the discourse on acceptance of especially the electronic registration of marriage, because they are the targeted users of the strategy. In this regard, nine (9) marriage registry clients were engaged as respondents. The study only engaged three (3) ratepayers, because ratepayers were not target users of POS devices. However, they were included in the study because of their direct engagement with revenue collectors who are the target users of POS devices.

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3.3.6 Sampling Technique

Purposive sampling technique was used to select staff of AMA and NITA who possessed and were capable of revealing the needed information critical to attaining the goals of the study (Babbie, 2004; Dworkin, 2012). This sampling technique provided access to staff of AMA and NITA, as well as their clients, these groups of people had requisite knowledge and experience about the phenomenon studied. The research engaged staff from departments were engaged in the selected e-government strategies. These at the AMA, departments included the MIS department, Human Resource Department, Budget Department and the Office of the Registrar of marriage. Public servants from the selected departments were then chosen based on their availability or convenience due to their busy schedules. Staff engaged included the Management Information Systems (MIS) Head, Deputy MIS Head, a Computer Programmer, the Registrar of Marriages, a Public Relations Officer, the Head of Revenue, Assistant Budget Analyst, Assistant HR Manager, an Assistant Internal Auditor, two (2) Higher Revenue Inspectors and Three (3) Revenue Collectors. At NITA, the Application Systems Director was sampled because of her key role in the rolling out of e-services at public sector institutions, which include the electronic registration of marriage at the AMA.

In the sampling of clients of the marriage registry and ratepayers, convenience sampling technique was also adopted to include respondents who were available at the office of the AMA, and willing to contribute to the research.

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3.4 Instruments of Data Collection

A research instrument is explained as a device or tool used in the collection of data (Yin, 2009). In line with the adopted qualitative approach, interviews were the specific data collection tool used by the study to generate information from the research field. Semi-structured method of interviewing was conducted, the researcher asked a set of pre-defined questions but the interviewees were also allowed to provide answers to other issues, which arose during the actual interview process. A comprehensive interview guide was developed by the researcher to facilitate in-depth interviews with respondents. The interview guide has been labelled "Appendix A" at the appendices section of the study. Again, it was designed to directly reflect the aims and objectives of the research.

Access to the interviewees was obtained after the AMA approved an introductory letter; this letter has been captured at appendixes of the study as "Appendix C". All interviews were recorded with a tape recorder after permission was sought from respondents, tools such as notepads, pens and others were used to note details and reactions of respondents.

3.5 Data Management and Analysis

Qualitative data analysis requires the researcher to categorize and make meaning out of data collected, with the aim of communicating this information to research audience. All the recorded interviews along with the notes that were taken in the course of the data collection processes were foremost transcribed into an organized text. After the transcriptions, case reports were prepared for the approval and corrections by the two case institutions samples for the study: AMA and NITA. A cross case analysis was then conducted with the approved reports validity purposes. Emerging data from the cross case analysis was then triangulated with secondary data.

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Emerging results were then analysed using the thematic content analysis, which is consistent with the first order and second order coding prescribed by Miles and Huberman (1994). The thematic coding requires the identification of common text and idea linkages in the data that informed categorizations or formation of sub-headings (Gibbs, 2007). This secured the study enough sequence and chronology.

3.6 Ethical Considerations

Key ethical measures in social research include ensuring voluntary participation of respondents and guaranteeing their confidentiality or anonymity (Saunders, Lewis & Thornhill, 2012). In course of this study, the researcher instituted measures to ensure adherence to these ethical requirements.

Before the conduction of interviews, the researcher sought the consent of respondents using a research consent form (see Appendix B). The consent form detailed an agreement between the researcher and the interviewee guaranteeing the confidentiality and anonymity of all the respondents. Participants were informed of their ability to withdraw from the study as and when they deem it necessary without any sanction or retribution. Recordings and transcriptions were also deleted from the recorder and computer after the research to prevent re-use, to protect the anonymity of respondents.

3.7 Research Validity and Reliability

To ensure validity, the research created the atmosphere of trust through the communication of comprehensive information on the adherence of ethical standards by the study to respondents. This was done to ensure that respondents were honest and not afraid of victimization based on

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their responses. Follow up questions were asked to seek clarification of vague responses to enhance the validity of the study.

According to Yin (2009), there must be a possibility to repeat the result of a study, in a different or same setting or at different time for similar results. In improving the reliability of this study, primary data from respondents were verified by juxtaposing information giving with other respondents. Furthermore, the cross case analysis of primary data and its triangulation with secondary data also ensured findings presented in this study were valid.

3.8 Field Experience

Researchers are bound to be confronted with challenges whiles conducting studies, and this study was not an exception. Notable of these challenges was the delay of the study institution to approve the introductory letter to facilitate the collection of data, and the failure of some respondents to honor appointments. In fact, it took a month for AMA to endorse the researcher's introductory letter, and to give clearance to interview respondents at the AMA, this contributed to a failure in honoring the research schedule.

Linked to the difficulty in approval of necessary documentation, was the fact that the time approved for data collection, coincided with the election of new members of the Coordinating Council and Metropolitan Chief Executive (MCE). The busy schedules of political leaders like the newly appointed MCE was a hindrance to their participation as respondents for the study.

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CHAPTER FOUR

DATA PRESENTATION AND DISCUSSION OF FINDINGS

4.0 Introduction

This chapter presents the analysis of the data collected on the field of study. The chapter discusses information on the two e-government strategies, which are, the use of POS devices for revenue collection and electronic registration of marriage, and issues related to the acceptance of these strategies. The chapter begins with overviews of the two strategies. Consequently, the chapter is organized along the lines of the objectives of study as follows; achievements of the e-government strategies, and factors in acceptance of the e-government strategies.

4.1 Overview of deployment of e-Government strategies at the AMA

In developing countries like Ghana, there is an urgent need to cut spending of government due to financial constrains (Miscura, 2007; Awortwi & Owusu, 2007; Ohemeng & Ayee, 2016; Kurfali et al, 2017). This informs the necessity to ensure efficiency in the running of government institutions, in the delivery of public services (Awortwi & Owusu, 2007). In the quest to ensure the transparency and efficiency in the Ghanaian public sector, the Government of Ghana has exhibited some commitment to introduce the use of e-government strategies. This is reflected in the successive policies including ICT for Accelerated Development Program in 2003; the e-government strategy in 2005 and GeGov project in 2008, geared towards the introduction of ICTs in the operation of public sector institutions (Mathapoly-Cudjoe, 2015). There has also been some support from external donor agencies like the World Bank, which provided financial support to Government of Ghana through the e-Ghana project in 2008. The e-Ghana project sought to increase the use of ICTs in public sector institutions to ensure transparency and to improve the quality of service (Mensah, 2016).

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The involvement of MMDAs in the Government of Ghana's e-government projects has been limited. In fact, the e-Ghana project involved AMA as the only MMDA in the piloting of e-government services on the Ghana government's e-services portal (Agyemang, 2015; Amegavi, 2015). Through the e-Ghana project, the AMA was motivated to explore the use of ICT in fostering effective communication amongst staff, and with the locals in its jurisdiction. The initiative to involve the use of ICT to ensure transparency and effective service delivery led to the usage of POS Devices in revenue collection, and the deployment of electronic registration of marriage application.

4.1.1 Extent of the deployment of electronic registration of marriage at the AMA

The laws of Ghana allow citizens to register marriages with the local authorities in Ghana to inform the state about the existence of the marriage; it prevents disputes on the existence of validity of a customary marriage; and the certificate given to the spouses can support requests by Embassies or High Commissions in applications for visas. There are three types of marriages recognized by the laws of Ghana, namely, customary marriage, Marriage under Ordinance and Islamic marriage under the Marriage of Mohammedans Ordinance according to Marriages Act (CAP 127). The study focused on the electronic registration of marriage at AMA, this form of service was only available for the registration of Marriage under ordinance.

Marriage under ordinance in Ghana is strictly monogamous. This means that unless the man or woman dies or the marriage is legally dissolved, neither party can marry. This kind of marriage comes in three forms; Marriage by a Registrar of Marriages, Marriage by a Marriage Officer/minister, Marriage by Special License. A Marriage Registrar is an officer at the Registrar

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Generals Office, Metropolitan, Municipal or District Assembly (MMDA), who has the mandate to perform marriages. A Marriage Officer is a minister of a religious body (Christian or Muslim) who has been duly licensed and gazetted to perform marriages. This means the person has been recognized and given a certificate by the Government to perform Ordinance marriages. Marriage by Special License is where the Registrar General's Office, at MMDA waives certain conditions for an Ordinance such as the length of time for notices or permits a venue (other than the Registrar General's Office, MMDA or church) to be used for the performance of the marriage. Ordinance Marriages are registered based on Marriages Act, 1884-1985 (CAP 127).

Previously all applications for marriage registration at AMA could only be done by walking to the AMA, picking up a form and paying for the service. Since 2012, the AMA in conjunction with NITA has adopted the use of ICT tools (website and e-payment systems) to assist in the process of registering marriages internally, as a pilot measure to enhance marriage related records keeping by the Assembly. However, NITA in conjunction with AMA made an incremental step to allow the public to apply for this service online through the e-services portal of the Government of Ghana, in December 2014. From the perspective of Heeks (2001), this mode of e-government application can be termed as an e-service. This true because, this strategy was employed to improve the relationship between the AMA and its constituents, by increasing the information flow between them. Now, the use of the service is limited to the application for Ordinance Marriage registration. A manager at MIS department of the AMA confirmed this information saying,

> *It was launched in December 2014, and actually AMA put one of our services on the platform and that is marriage…The e-forms, electronically filled ones and the payment of such services. NITA started piloting the e-government system in 2012, but the launching was done in 2014. And with the piloting we were not dealing with the public, but with the launch in December 2014 we*

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> *started dealing with the public and the transactions have been going on, people have been applying online, making payment online for their services without necessarily walking or coming all the way to the assembly.*

From the perspectives of Gartner (2000), Baum and Di Maio (2000) and Layne and Lee (2001), AMA can be said to have attained the transaction stage of e-government with the use e-forms for marriage license applications. Marriage applications can be done online through the e-services platform initiated by NITA. The website gives comprehensive information of the cost of marriage registration services as well as gives the opportunity for clients to fill marriage forms and pay for the service online and afterwards obtain a marriage license after 21 days, when all conditions are met. A top management of the study institutions, referred to this development in an interview, saying,

> *There are also e-government online services for government agencies. We have the AMA on behalf of local government doing online application and registration of marriages among other things. AMA is doing marriage registration, online and that means that they are into actual transactions, so now a couple can apply online to initiate or request for marriage license or approval to marry. Then also married couples can do a search for their marriage certificates, some people have married long ago the cannot locate a copy of their marriage certificate, so they can do a search to confirm their marriage, with the period date and so on and then, they can also request a true copy of their marriage certificate. So they are actually doing online transaction.*

At the moment, clients can apply for marriage related services online and pay for services through credit/debit cards (Visa and MasterCard) and Mobile Money Platforms (MTN and Airtel). There are also social media platforms on Facebook, Twitter and WhatsApp to get feedback from clients.

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4.1.2 Extent of the deployment of POS devices in rate collection at AMA

AMA has four main channels of income. These are the District Assembly Common Fund, funds from the Bank of Ghana, Donor Grants and Internally Generated Funds (IGF). A trend analysis of funds received from all source to the AMA, indicates that the IGF fetches the most revenue for the activities of the AMA (AMA Composite Budget, 2016). A respondent who said, *"Without IGF the AMA does not exist, and the revenue mostly comes from the business operating permit",* confirmed this situation.

Information from the 2016 Composite Budget of the AMA, confirms that IGF at the AMA is generated from seven main sources: rates, fees and fines, licenses, land, rent, investment and other miscellaneous sources of revenue. Of all these channels of IGF, trends from 2013 to June 2016 proved that Rates contribute the most funds of all the IGF revenue sources available to the Metropolitan Assembly (AMA Composite Budget, 2016). Rates are funds paid local authorities, by residents based on some property owned or business activity done. Some rates at the AMA include; property rates, music rates, business operating permit, market tolls, and lorry tolls among others.

The 2012 Annual Report of the AMA was instrumental in the specification of rates collection activities at the AMA. Starting the collection cycle is the setting of budget targets, which informs the bills that ratepayers will pay in the financial year. Collectors then distribute bills; this marks the commencement of the POS devices enabled revenue-collecting period. Getting to the end of the year, the AMA revenue task force is deployed to confront defaulters and arraign them for prosecution, the taskforce scan for new business simultaneously. This is followed up with a registration of new businesses discovered.

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In summarizing the yearly rate collection activities at the AMA, times lines could not be included because report confirmed that, the time schedule of activities varied based on the reviewed year. Figure 4.1 below, represents this information, and illustrates the process of revenue collection activities at the AMA.

Figure 4.1 Rate Collection Activities at the AMA



Source: Authors Own Construct

The collections of rates are the heart of revenue generation at the AMA, and this cannot be overemphasized. The 2016 Composite Budget of the AMA proves that there have been consistent and renewed efforts to maximize the revenues generated from this channel. The continuous search for ways to minimize leakages in revenue collection led to the initiation of the usage of the POS devices in revenue collection at the AMA in January 2012. Point-of-sale (POS) terminal is a computerized replacement for a cash register. Much more complex than the

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cash registers of even just a few years ago, the POS system can include the ability to record and track customer orders, process credit and debit cards, connect to other systems in a network, and manage inventory.

The introduction of POS devices for rate collection was part of the AMA's revenue mobilization action plans put in place to ensure that the target of GH₵ 26 million for the year 2012 is achieved (AMA Annual Report, 2012). This strategy was believed to enhance transparency and coordination with the organization, with the general aim enhancing the inner workings of the public organisation. The deployment of POS devices is therefore an e-administration strategy according to Heeks (2001).

However, the implementation of this strategy across the Metropolitan Assembly was done gradually. The study organizes information on the implementation process in three (3) phases.

Phase One (1)

In January 2012, the AMA in collaboration with SW Global Company instituted the method of real time update revenue collection, with POS devices. According to the 2012 Annual Report of the AMA, the usage of the device was on a pilot base, revenue collection was limited to the Market and Parks Section of the Assembly's revenue points. The Assembly also provided internet facilities to contact the POS device monitoring team at the MIS Unit of the AMA. A Higher Revenue Inspector in an interview confirmed this fact, talking about the history of the use of the POS devices he said,

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> *As of 2012, it was piloted in the various markets. You know AMA has a lot of revenue generation areas; we have markets, sanitation management and a whole lot, so it was started from the market and gradually it has been rolled out to cover all revenue areas with effect from 2015.*

Officials of the MIS Department trained collectors on the use of the POS device, this was a good practice, since ICT training is deemed to influence the acceptance of innovations (Mahmoodi & Nojedeh, 2016). On 4th January 2012 each revenue staff was given a unique identification code and a POS machine at the Market Revenue Unit. This marked the end of manual ticketing era at that unit, as POS devices had the capability of printing tickets, and notifying management in real-time when payment is made. In view of this, there was an arrangement for audits to be made daily on the amount of money recovered from collectors, and the value of tickets given out, by Internal Auditors at the Sub-Metro level (AMA Annual Report, 2012). An Internal Auditor when quizzed about his responsibilities in the revenue collection with the POS device responded that,

> *At the internal audit, we have collectors who go to the field and send bills to our clients, they pay them, they bring their tickets and we audit them.*

Phase Two (2)

The phase two (2) was characterized with the introduction of additional payment alternatives to all ratepayers of Business Operating Permit (BOP) and Property Rate. This was necessitated by the fact that there are a lot of businesses that pay huge amounts of property rates not suitable for cash collection. Therefore, the option for bank transfers and payments of rates for such large-scale businesses were introduced. The services of the Access Bank Ghana Limited and National Investment Bank were engaged to create an avenue for people to pay at banks. With the services of Internet, the database of the Assembly was updated immediately payment was made at the

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bank through the SW Global platform (AMA Annual Report, 2012). Referring to the payment of rates by the big business and departments, a servant at the Revenue Department at the AMA said,

> *With the big Businesses like the MTNs, we hardly even collect cash, you come for your bill, go to the bank, pay and bring your pay in slips. So we are reducing the elements of cash at hand, which sometimes ends up in someone's pocket at all the departments. But when it comes to the tolls, how can you tell someone to go and pay 50 pesewas at the bank? So that is why we still have the human interface over there.*

According to the 2012 Annual Report, there was also training of revenue staff and Contractors at the Sub-Metros on the use of the POS device, after the database of the whole Assembly was then loaded on the server in the 4th week of February 2012. This would later pave way for the usage of the POS in the collection of revenue from all Revenue Units as well as by some department of the AMA in 2013 (AMA Annual Report, 2013). There was a demonstration of the use of the POS devices. Participants were trained on how to use the device. According to the 2012 Annual report of the AMA, trainees were taken through the payment routine, which researcher also observed on the field whiles collecting data with some revenue collectors at the Osu-Klottey Sub-Metro,

> "When a Ratepayer account is keyed on the device and payment is made, the system would update the account of the Rate-payer updated immediately. Receipt of amount paid and balance outstanding as at the date of payment was communicated on the receipt to the payee. This was implemented to minimize the issue of uncredited payment leading to huge arrears outstanding on our records. The system also ensured that officers paid daily of all revenue collected before the system reset the machine to allow the collector to operate the machine the following day." (AMA Annual Report, 2012:13).

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Phase Three (3)

On June 2013, the use of the POS was rolled up to cover revenue collection in all revenue sections of the AMA. This was the necessitated by the massive improvement made in the application of the strategy at Market and Parks Unit. The target of GH₵ 26 million for the year 2012 is was not achieved however; a total of GH₵ 22,990,853.81 was realized in IGF revenue representing an increase of inflows from 2011 to 2012 by 10.3 percent at the end of December 2012. The increase in revenue was credited to positive steps put in place to raise revenue; the most prominent of these strategies was the use of POS devices (AMA Annual Report, 2013). In January 15th, 2016, a report from the Ghana News Agency claimed that, AMA exceeded its revenue target in 2015. The then Chief Executive is reported to have said that, the Assembly generated GH₵ 35,800,000 for the year 2015 which exceeded its projected figure per its Composite Budget by 11 percent.

The POS device was also linked to the Ghana Integrated Financial Management Information System (GIFMIS) system in 2015. GIFMIS was introduced by Government of Ghana through the Controller and Accountant General's Department, to further ensure accountability in financial management in public sector institutions. Before then, the POS devices worked on different software called Bosporus. Currently information on revenue is not only shared with the AMA alone, but with other government institutions like the Ministry of Finance and Economic Planning.

With the use of POS on GIFMIS platform, there exist inter-agency alliance between the AMA and state institutions like the Controller and Accountant General's Department, at the stage e-government can be termed to have reached the Integration stage (Gartner, 2000: Layne & Lee, 2001).

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4.2 Factors influencing the Acceptance of e-government strategies at the AMA

Davis (1989) professes that, PU and PEU, and some external factors (cultural, social and political factors), have impact on acceptance of innovations by its target groups. The results of the study confirmed by the assumptions of Davis (1989). The study found all factors professed by TAM relevant so far as the acceptance of the two e-government strategies at the AMA is concerned. Discussions on how these factors manifested as adequately discussed.

4.2.1 Perceived Usefulness

Davis (1989) professes that how useful people perceive innovation is critical to its acceptance, all twenty-seven (27) respondents engaged, confirmed this assertion. There was consensus on the notion that the projection of how beneficial the use of the two e-government will be to target users, partly informed their favourable reception of the innovations. Also, twenty (20) respondents felt the use of POS in revenue collection was acceptable partly due to the convenience it gives staff during the process of revenue collection. Interviews conducted as part of the study revealed an overwhelming acceptance of the use of POS devices by revenue collectors, this was mostly influenced by how they perceived the approach had been beneficial to the execution of their work duties at AMA. Similar studies in the acceptance of innovations in non e-government domains in Ghana confirmed that PU was very critical to innovation acceptance (Asmah, 2015; Mbrokoh, 2015). It was generally agreed by staff respondents that the perception of how the POS devices enhanced the work of revenue collection was a boost to its favourable reception by target groups.

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Revenue collectors affirmed the use of POS devices reduced conflicts between themselves and ratepayers, and this was critical to its acceptance by them as users. They referred to incidents of conflicts with ratepayers, as a product of the previous manual bookkeeping mode of record keeping, which was tedious and time-consuming. These conflicts they revealed, resulted in embarrassment from clients, in cases where arrears had wrongfully been recorded on the account of clients. A Higher Revenue Officer opined,

> *POS is easier for records keeping and checking. We were having conflicts with clients because if I have paid my fee to the AMA and for that matter the government, and you come and ask me again, is that not embarrassment? You embarrass yourself because this is something that you have already taken. The advantage of the POS is that it swiftly gives accurate information about whoever has done his obligation to the assembly*

Confirming this assertion, a Revenue collector also said,

> *Everybody likes good stuff, the POS is enhancing our activities significantly so most of the revenue collectors prefer it, as compare with to manual bookkeeping collection. With the manual, we had to write with a pen, and we sometimes had to quarrel with ratepayers because data on the accounts of the payers were not readily available.*

Interviews conducted with ratepayers on the study field revealed that, due to easy nature of records checking associated with the use of POS device, they were regularly and accurately updated on their arrears by collectors before the AMA taskforce is deployed to their premises. According to one of the ratepayers,

> *I have been trading at this place for some years but I have realized that with the inception of the POS device, the revenue collectors are empowered to promptly and accurately give us information on arrears on time before the revenue tax force are deployed. So before they come we quickly go to settle arrears.*

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It was also proven that the usage of the POS device is perceived to ensure quick records checking, which in turn harnessed auditing of revenue collected. An Assistant Internal Auditor at the AMA confirmed this saying,

> *Normally as they send the POS into the field when clients pay, they type it and it goes straight into the system and head office accesses it. They collect the money; they pay to the bank and bring the receipt and we check. It is faster.*

On the same theme of records checking, the managers at the Budget Department also agreed that, the use of POS devices was phenomenal, especially with its integration with the GIFMIS, they explained how information on revenues collected at the various points was readily accessible to her in real time at the head office through the internet. Commenting on the swiftness associated with the POS devices in records checking, she said,

> *It is very useful, now records on the tolls are generated even before you (referring to collectors) get here, we know the number of tickets generated from your book, so we have the tally, daily and a summary report so out of the summary report you pay to the chief cashier. Then you are acquitted for that day's collection then you can continue the following day.*

Also, eighteen (18) respondents who were staff of AMA interview as part of the study, gave prominence to the fact that; online mode of marriage registration is a faster and secure means of collecting and storing information, than its manual alternative. Staff also attested to the notion that, information collection is much easier and faster when clients apply for marriage registration online. With the online application, the staff do not manually enter data again, all the data they need are secured stored on the Internet. From the perspective of the staff, this is very free of effort. A staff at the MIS department said,

> *All the information we need from the person is online; we will not have to stress ourselves to enter the data unto the computer again.*

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The storing of information online means that, when there are some issues with the application demanding clients to reapply, they do not have to go through the process of entering their application information all over again, from the perspective of the client the strategy was very useful in this regard. Confirming this benefit was a member of the management of the study institutions, who said,

> *Now they are beginning to see the benefits of the online because the certificate matures after a period of 21 one days, sometimes they apply and after the designated period they are not able to contract the marriage, which means that they have to reapply but if they have done the online application, the reapplication becomes much easier and faster.*

A member of the management of the MIS department also attested to a widening of the accessibility of the electronic registration of marriage service to be very advantageous to AMA. Revealing the staff perspective on this benefit of the electronic registration of marriage registration strategy, the manager revealed that currently, the number of clients who visit their premises for marriage registration has reduced, since people have the opportunity to apply for the service without necessarily reporting to the premises of the AMA. The Manager confirmed that reduction in the number of people at the premises gives staff the peace of mind and an enabling atmosphere to perform their work duties without much stress. He observed that,

> *Customers can register anywhere at your own convenience because it is online, you will go through it afterwards there is another e-payment platform you'll pay for it. You will do everything online and after the twenty-one days, you will only come with identification and then come and collect your certificate. It cuts on the traffic on the number of people coming here to able to do such services. With the manual sometimes they had to come here more than two times before you get your license, but when they do the online, they only come here once for identification when the license is ready and that is it.*

Also, two of the clients interviewed affirmed that the online registration of marriage was convenient since is improve service accessibility. A client who was the only interviewee who had used the portal opined,

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> *Applying online was very conducive for me, when we decided to tie the knot I was in the United States a friend who had married some 3 months before at the time, introduced me to the system, I had my doubts but I paid with my Credit Card and registered, I arrive in Ghana last week after applying a month ago, and my marriage license is ready, I think this is something at all government agencies must emulate.*

Studies on the Ghanaian public sector affirm the widespread nature of bureaucracy in public institutions (Ayee, 2000; Amegavi, 2015; Nuhu, 2015). There is an acknowledgement of the notion that, e-government reduces redundant processes and documentation encountered in the manual setting. The manual setting of work demands the mechanical process of writing, the use of paper and hard copy documents. This results in the increase in delivery times of public services. Considering the success of the use of POS in revenue collection, a widespread and intensive adoption of e-government by local authorities and public institutions, in general, can be advanced to deal with the red-tape in public service delivery. It has been affirmed through studies that e-government deals with the issue of the red tapeism and substantially aids in the maintenance of a seamless public service delivery mechanism (Rose, 2002; Njuru, 2011; Prasad, 2012; Mpinganjira, 2013; Mensah, 2016).

The results of the study also proved that the deployment of online registration of marriage by the AMA has been useful in widening the accessibility of the public service. Unfortunately, only one (1) of respondent was of the view that the widening of accessibility of marriage registration services was convincing enough for clients to accept it. However, five (5) of the respondents who were clients felt that the manual registration was better. External factors accounting for this level of PU by clients were generally sociocultural in nature. These factors have been discussed in sections 4.2.3 and 4.2.4 of the study.

This finding of the study meant that the acceptance and sustainability of e-government strategies partly depended on the benefits people perceived it gives them as users. In other words, if the

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usage of e-government strategies is perceived to enhance work at the AMA, it contributes to their acceptance. Similar, if clients envisioned that e-services were more beneficial and effective for the acquisition of a desired public service, the would accept it. This retreats the need for stakeholders to educate the citizens on how e-government enhances work activities, which is believed to generate likability of target users of e-government strategies (West, 2004).

4.2.2 Perceived Ease of Use

TAM posits that, how free of effort target groups perceive an innovation's usage, affects their acceptance of the innovation. In effect, if an innovation's target group perceives associated difficulties with the usage of the innovations, they will reject it. In contrast, if the target groups of an innovation think its usage is not difficult they will accept it. Similar studies conducted on e-government acceptance have established PEU as a critical factor (Jiang and Ji, 2014; Susanto & Aljosa, 2015; Kurfali et al, 2017). The study ascertained how clients and public servants perceived the selected e-government strategies was easy to use, and its linkage with acceptance.

With the electronic registration of marriage, it was realized that the main concern of clients was the user-friendliness of the e-service portal. Some of the respondents the study engaged felt that in spite of the usefulness of the initiative, the web portal was not very user-friendly. For instance, some respondents who had used e-service alleged that, apart from the statement of the prices of the electronic registration of marriage-related services and a detailed account on the processes users must follow to acquire a marriage certificate, there were no specific instructions on how to use the portal. A respondent who had used the service said,

> *The online service is very helpful, but I think an issue was that I found no instructions on the site; I had to use my basic IT knowledge to figure this out by myself. For instance, the site does not tell*

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> *you to open an account. I think there should be a tab on the platform that shows how to use it; otherwise, if users see these challenges, they will reject it.*

The researcher confirmed that through a visit of the marriage registration website, a screenshot is of the website is presented in the appendices of the study as "Appendix E". A visit to the website proved that indeed information on the portal was not comprehensive enough to guide people with limited ICT knowledge to apply for marriage registration online without much difficulty.

In interrogating issues of PEU associated with the usage of POS Devices in revenue collection, the researcher asked questions on how easy the use of the device was perceived to be. Generally, all staff at the revenue department agreed that the POS devices were very easy to operate in fact it was gathered that revenue collectors do not have any issues so far as the operation of the machine was concerned. A Higher Revenue inspector responded to the question on the ease of use of this device saying:

> *Now we all use phones right? Few years ago we did not know about phones, but ones you buy it and start using you realise it is very easy to use, it is just about training the person and letting him or her fidget with it, the POS is not difficult to operate.*

However, some concerns were raised pertaining certain challenges at AMA, which were perceived to work against the use of POS devices in revenue collection. It was established that POS devices work with an internet connection, this is due to the need to connect with servers at the head office to transmitting revenue-collecting information from the field in real-time. Therefore, without a source of internet, the POS devices cannot operate. All revenue collectors, as well as, Higher Revenue Officers raised the concerns about the fact that the internet connection was not reliable. Most of them narrated instances where they could not work because their servers were down. One of the revenue collectors said,

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> *It is a good system, but sometimes it is time-consuming. You can sometimes spend an hour or two on one client because of the nature of the network.*

Another Revenue Collector also re-echoed this sentiment saying,

> *Of course, it is convenient, but the disadvantage is that it takes some time especially when the network is not working or there is a problem with the network.*

A staff at the revenue department also opined,

> *Periodically the machines are down, no internet connection we have to go offline and sometimes some collectors even have to share a machine.*

The study confirmed previous studies on e-government in Ghana by Mensah (2016), Awortwi & Amega-Serlorm (2015) and Mathapoly (2015), who cited the unreliability on internet connectivity, as one of the many challenges to e-government usage.

Mathapoly-Cudjoe (2015) made a claim that the erratic supply by the Electricity Company of Ghana was a limitation to the usage of e-government strategies in Ghana. This assertion was also confirmed by all the revenue officials' interviews. Concerns were raised about how erratic power supply from the Electricity Company of Ghana can have a negative effect on the use of the POS devices since these devices are powered by electricity. Officials at the AMA lamented on the lack of alternative power source at their offices to charge their equipment in times of power outages. A revenue collector said,

> *The electricity situation is also there because we do not have a generator here, so if the light goes off, it means we cannot do anything.*

The revelation of the challenges associated with the use of the selected strategies at AMA seems to supports the notion that, the financial constraints context of developing countries does not support the acceptance of e-government strategies (Awortwi & Owusu, 2007). As already revealed, the lowest rank obtained by Ghana in the 2016 e-Government Survey was on the

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infrastructure component. This demonstrates the inadequacy of e-government infrastructure in Ghana. In the perspective of this finding of the study, the lack of needed infrastructure in the Ghanaian context (Miscuraca, 2007; Mbrokoh, 2015; Osei-Kojo, 2016) is feared to have the potential of making e-government strategies undesirable by target users.

Indeed, all twenty-seven (27) respondents also agreed with the assertion that PEU was a key determinant of user acceptance, however, based on the researcher's analysis of interviews conducted with the staff, PEU featured on a minimal level in their acceptance behaviour of the selected e-government strategies at the AMA. In spite of the numerous challenges raised by revenue collectors to be associated with the use of POS devices, they had still accepted it. Similarly, PEU did not feature greatly with regards to the rejection of the online marriage application, even the only client was not satisfied with the instructions on the webpage he went ahead to used it. Other six (6) clients of the marriage registry who had rejected the e-service also admitted that they did not do so on the bases of PEU.

4.2.3 Social Factors

Scholars affirm that societal influences are critical to the acceptance of innovations (Davis, 1989; Mbrokoh, 2015; Nuhu; 2015; Mathapoly-Cudjoe, 2015). According to Davis (1989) social factors consisting of language, skills and facilitating conditions may influence the acceptance behaviour of target groups of innovations. Trust, cost and level of ICT training, and corruption were identified as essential factors acceptance of the selected e-government strategies at AMA.

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4.2.3.1 Trust

All twenty-seven (27) respondents also cited the level trust of clients as an influential factor in acceptance of e-government strategies at the AMA. Issues of trust were also mentioned as determinants of citizen's adoption of e-government strategies by similar studies in different geographical contexts (Mahmoodi & Nojedeh, 2016; Kurfalı et al, 2017). Twenty (20) respondents including six (6) clients believed that a majority of the client base of AMA trusted the manual or face-to-face application to online marriage registration. For instance, five clients of the marriage registry admitted they were IT proficient, and also aware of the online marriage registration, but did not use the online platform. This was because they did not trust the AMA to work on their application if they do not go there in person. A client interviewed said,

> *Well, a friend told me about the online one (referring to online marriage registration), but this is Ghana. Who will I consult after 21 days if my certificate is not ready?*

A Computer Programmer of MIS Department also added his opinion in this regard saying,

> *Members of the public are looking for security, in terms of whether their application is secured, that they could easily get their license, you know, most of the public are thinking when they go online and do the application, they don't know the next stage of it. But when they come in here, they feel like it will be done.*

Also, in an interview with a revenue collector, the researcher's attention was drawn to the fact that, minor security concerns were associated with the use of POS devices in revenue collection at AMA. He made reference to the fact that, if collectors did not keep their User Codes and Passwords well, an unscrupulous person may credit the accounts of people having arrears, putting collectors in an unpleasant situation of accounting for such losses.

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He said,

> *When they install you on it, you will be given a code which is unique to you only, no one knows unless you tell the somebody. But when you give it out, the person can go into your account and use it to credit some people and at the end of the day when you are questioned, you won't be able to answer when auditing is being done.*

Some scholars cited security risks associated with the use of ICTs as a key driver of the mistrust of e-government strategies (Jho, 2005; Goldstein, 2013; Mathapoly-Cudjoe, 2015). Issues bothering on privacy, and general concerns about the use of data collected in the usage of e-government strategies was cited as determinants of users' acceptance of e-government strategies (Jho, 2005). The case of AMA was a bit different, there were minor concerns about security with respect to the acceptance of both of the selected e-government strategies. Two (2) clients raised issues relating to the trust of internet applications in Ghana, as a disincentive of the use of electronic registration of marriage. The rising cases of internet fraud in the mainstream media in Ghana have been established as a negative influence on the adoption of internet-based payment methods in Ghana (Asmah, 2015; Mbrokoh, 2015; Awiagah, Kang & Lim, 2016). There is the need for service providers to strengthen their systems from cyber-attacks and other internet related crimes. There is the need for public service providers to assure clients that their systems are secure, this can be done through sensitisation on e-government through the media or through ICT education on how to keep passwords, and other measures to ensure web security.

However, issues of mistrust stemmed from the perceived lack of commitment to e-services of public institutions in Ghana. Five (5) marriage registry clients rejected the online marriage registration platform partly based on the view that public institution put more premium on manual services as compared to virtual services. This perception was a key driving factor behind

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their acceptance of manual application of marriage registration as opposed to the virtual version at AMA, even according to the projection of seven (7) staff of the AMA.

4.2.3.2 Cost

Quite surprisingly issues of cost only featured as a challenge to the implementation of e-government in the developing-country-context in literature considered on e-government (Miscuraca, 2007; Charnkit, 2010; Agyemang, 2015; Mathapoly-Cudjoe, 2015). Studies refer to the inadequacy of financial resources by the Ghana government as a burden in the application of e-government (Mathapoly-Cudjoe, 2015; Nuhu, 2015). Contrastingly, other studies found e-government to ensure economy by reducing administrative cost (Mpinganjira, 2013; Amagoh, 2015; Osei-Kojo, 2016).

All twenty-seven (27) respondents agreed that cost was paramount in the acceptance of e-government strategies. However, only six (6) respondents comprising one staff and five (5) clients agreed that issues of cost were critical to their like or dislike for the selected e-government strategies. The limited support for the use of the POS device by a member of the management at AMA was due to its associated high financial cost. In spite of the usefulness of the strategy in tracking effectively the collection of revenue, a staff of the Revenue Department found it to be too expensive to operate. This top bureaucrat thought that the use of that strategy was associated with a lot of expenditure, which would eventually take up a high percentage of the revenue generated. This member of management at the AMA expressed dissatisfaction with the introduction of the use of the POS devices for revenue collection at all revenue-collecting points at the Assembly. The official rather favoured the usage of POS at collection points that have proven to generate higher level of funds. The official whiles lamenting said,

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> *To me, it is not all technological advancement that is worth pursuing. Looking at the cost and benefits, it should be targeted at areas where the rate amount is bit reasonable… what is so technical about collecting toll?... When all you need to do is to do a good head count and set a good target for collectors, and tell them, am demanding an X amount from you, then at end of the day, if you don't get this amount, it means they are not doing their work well so you fire them.*

The issue of cost was also multi-dimensional, apart from the cost from the institutional perspective, the financial cost of e-government adoption to individuals comes to play when they are considering to use innovations in the public sector. Thus the acceptance of e-government strategies sometimes depended on its relative cost to the user. Clients cited the high cost of internet and other ICT devices like computers and smartphones, which are needed to access e-government services, was a disincentive to its acceptance.

Five (5) clients projected that they would have used the online marriage registration portal of the AMA if there was an application centre equipped with the necessary facilities like reliable internet connection and computers at the premises of AMA. These clients argued in support of the need for the provision of free Wi-Fi and other internet facilities to access e-services such is the electronic registration of marriage. Inferring from this finding of the study, it would be ideal for authorities to put in place potent measures to reduce the cost of Internet, electricity and other supporting infrastructure in the usage of e-government strategies, to boost its acceptance by clients.

4.2.3.3 ICT Training

Al-Shafi and Weerakkody (2009) established that the level of ICT knowledge of target users of e-government affects their acceptance behaviour. Characteristics of users like their age, educational background, among others have been proven as influences on the acceptance of e-

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government strategies (Cole & Kelsey, 2004; Charnkit, 2010). All twenty-seven (27) respondents interviewed agreed that the training of the target users of both POS devices and electronic registration of marriage had an influence on their acceptance of the strategy.

All five (5) revenue collectors agreed that the adequate training given them on the use of the device contributed to their acceptance of the POS devices as a better tool for revenue collection. All the revenue staff contacted believed that with adequate training and field experience with the machine, collectors do not have any issues so far as the operation of the machine was concerned. A Higher Revenue inspector responded to the question on the ease of use of this device saying:

> *Before we started using the POS we were trained adequately, however, we encountered some challenges whiles we started using it on the field, but that's normal with new things. But now we do not have issues with operating it, it is simple.*

At the AMA, all staff interviewed admitted that there have been periodic training sessions to aid them in using the selected e-government strategies. The staff-interviewees of both the Marriage Registry and the Revenue departments believed these pieces of training have empowered them to appreciate the application of both e-government strategies.

The researcher observed that overwhelming support for the use of POS devices by revenue collectors could partly be attributed to the adequate training and familiarity with its usage. However, the lack of client support for the online marriage registration can be attributed the lack of awareness creation on the service to the residents of the AMA. Of all the clients interviewed, only two were aware that the AMA had the online system prior to the arrival at the premises.

Humans are required to operate ICTs, sometimes the characteristics of an individual may have influence on his/her acceptance of an e-government strategy. Some studies have cited the level of I.T training as a factor which may influence user acceptance of e-government (Cole & Kelsey,

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2004; Al-Shafi & Weerakkody, 2009). The establishment of adequate training as a driver of user acceptance of e-government strategies reveals the need for the Ghana government to initiate programs and policies to ensure the public servants and clients are well educated to understand and use e-government strategies. The public sector must only employ individuals with adequate ICT awareness and skills. Public servants already employed at MMDAs, for instance, must be given regular training of ICTs and e-government to enhance their favourable reception of e-government strategies.

4.2.3.4 Corruption

Previous studies on e-government have established that e-government successfully ensures that the actions and inactions of public servants and information of public institutions are readily accessible (Bagga et al, 2005; Bertot et al, 2010). Transparency is accepted as a key measure in limiting corrupt practices. Transparency ensures that wrongdoers in the public service are easily identified. Also the establishment of transparency in the public institutions is believed to reduce the motivation of public servants to engage in corruption (Bagga et al, 2005).

The deployment of electronic registration of marriage was also noticed to limit corruption at the AMA. Some respondents highlighted that the system ensures that monies are directly paid into the coffers of the AMA and monitored by officials, therefore, staff do not have physical contact with clients or cash to facilitate the perpetuation of corrupt practices. However, this move was perceived to work against the interest of some staff, there were seven staff-interviewees who gave responses which suggested that some staff dislike the e-application systems because it was preventing them from perpetuating corrupt practices. They argued that, some staff wanted to meet applicants so they could extort money from them illegally. In this regard, negative practices

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like corruption at AMA was perceived by some respondents to have a negative influence on staff's and citizens' acceptance of the e-government strategy, regardless of its role in enhancing service accessibility. A staff of the AMA said during an interview,

> *Then I think another issue is the staff ... some feel the manual is the best way because of small money that also comes out of the manual.*

Another staff also confirmed this belief saying,

> *Even now, they still want to stick to the manual they want to meet the customers' one on one and you know what am talking about* (referring to that fact that it supports the perpetuation of corrupt practices).

Also a client respondent was honest about the fact that, the reason for his support and use of the manual version of the service was due to the reason that it was feasible for him to bribe his way through to reduce the required 21 days under the CAP 127 law drastically to about three working days. He opined,

> *I need my marriage certificate urgently because I have few days left to leave the country, and I have to marry. When I came here I heard of the online service but I cannot do that because it takes 21 days, I have seen* (bribed) *someone who has agreed to fast-track the process when I use the manual, so I can have it in a week.*

Evidence from academic literature suggests that e-government is associated with the reduction of corruption (Rose, 2012; Hopper et al, 2009; Pathak et al, 2009). However, Yeboah-Assiamah, Asamoah, Bawole & Musah-Surugu (2016) claim that there seems to be normalization of corruption practices, including bribery and misappropriation of funds in the Ghanaian public sector institutions. Since the acceptance and sustainability of e-government strategies is established to depend on the social set up if Ghana, the acceptance of e-government and its sustainability in AMA and other public institution in Ghana is feared to be faced with hostility from staff, since e-government diminishes the tendency for vices like bribery. There is the need

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for stricter punishment for the individuals engaged in corruption and the consistent sensitization of citizens on the adverse effects of corruption (Yeboah-Assiamah, et al, 2016), as these recommendations may also go a long way to improve the likability of e-government strategies by public institutions like the AMA.

4.2.4 The Cultural Factor

The TAM argues that cultural factors affect the implementation and the acceptance of innovations. Findings of Jho (2005) support the stance that issues of culture are critical in the consideration of innovation acceptance. This study found that the norms of clients was influential in their acceptance of online marriage registration. These phenomena are further demystified.

4.3.4.1 Norms of Clients

The outlook of citizens was established to affect their acceptance of e-government strategies. Jho (2005) as well as the Charnkit (2010), established that the outlook of citizens had an influence on their acceptance of e-government strategies. Goldstien (2013) also agrees that the consistency of the practice of e-government with the worldview of its intended users is critical to its acceptance. Findings of the study proved that most locals at the AMA are not used to doing business virtually, and feel that serious business must not be done virtually. Seventeen (17) of the respondents interviewed agreed that residents of the AMA sometimes stick to the manual or the face-to-face mode of application because they are used to it. This seemed to be the case of three clients (3) of the marriage registry who suggested that they prefer the manual form because they

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are used to it, and the virtual version is not for people who are serious about getting their certificates. One of such respondents said,

> *This has been the practice for government services in Ghana. The people in the west are developed, we cannot compare ourselves to them. In Ghana, if you use those e-services they will not think you are serious. If you really need the certificate you must come to the premises so that they know you are serious.*

This situation was also confirmed by projections of a high-ranking bureaucrat of one of the study institutions, who opined,

> *People have done these face to face interaction for a long time, so the virtual organization beats their mind, they cannot believe that it is real, that you could actually request for a service and sit at home and believe that somebody will actually process after you have paid and all of that. Some of them have, issues of understanding the virtual institutional setup.*

Indeed, findings of the study support that belief that issues of culture come to play in the acceptance of e-government strategies. Most of the client interview had the perception that, currently the internet and its related technologies are not appropriate for urgent services in Ghana. They thought the internet was more suitable for informal communication and not for 'formal' or 'serious' issues, and this account for their rejection of the e-marriage application portal. The tendency of individuals to stick to old methods because they are accustomed to them has already been identified a challenge to the adoption of new technologies by some private-sector organizations in Ghana (Mbrokoh, 2015).

Most often, organizations tend to use laws and policies to compel target users to adopt the innovations, this may come in the form of a complete replacement of manual services with virtual services. For instance, the Ghana Immigration Service has decided to progressively limit the application of passports to its e-services portal ("Online passport application launched", 2016). In the near future, other public institutions must employ similar measures, thus, to limit

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access of some public services to their e-service portals. This will alter the perception of Ghanaians, because by using these services they would appreciate its benefits, and eventually accept that the internet and its related applications are suitable for serious business.

Also, considering the cultural dynamics of technology acceptance at AMA, the way forward to ensure the acceptance of e-government strategies by public institutions is to influence the worldview of citizens through the creation of awareness about e-government strategies. There is the need for public education to generate acceptance of e-government strategies in the Ghanaian public sector (West, 2004; Boateng, 2014; Mbrokoh, 2015), to convince citizens that serious business can be done virtually.

4.2.5 The Political Factor

Davis (1989) established that issues of politics come to play in the consideration of innovation acceptance behaviour. The findings of similar studies (Sanchez et al, 2003; Ruth & Schware, 2008; Goldstein, 2013) also affirm the notion that the political arrangements in a country affect the acceptance of e-government strategies. For instance, Ruth and Schware (2008) realised that citizens in democratic regimes were more receptive to e-governments strategies. In the case of the AMA, the will of the political leaders was deemed critical to acceptance of the two e-government strategies.

4.2.5.1 Political will

As a matter of fact, the supreme authority at AMA is neither the Head of Revenue nor the revenue collectors. Decision making is the prerogative of the highest decision-making body,

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which is the District assembly according to the Local Government Act 2016. The district assembly comprises some key political figures including the elected Assembly members, the Presiding Member, members of Parliament from the constituencies within AMA, and the Metropolitan Chief Executive who is appointed by the president as his representative at the AMA. These political officials take decisions in consultation with high-ranking bureaucrats at the AMA. However, the policy directions of these superior institutions bind even the highest ranking technocrat; the Co-ordinating Director. This is because according to Act 936 Clause 5 subsection 5, "District Co-ordinating Director… shall be the Secretary to the District Assembly". Moreover, the supreme spending officer at the AMA is the MCE, the MCE is also responsible for the day-to-day performance of the executive and administrative functions of the District Assembly.

Political will was therefore perceived to play a critical role in the eventual acceptance of both strategies since the actions and inactions of these political figures influenced the easy use of the e-government strategies. For instance, political leaders may decide not approve budgetary allocation for the acquisition of e-government infrastructure, and this will be a challenge to PEU of target users. A revenue collector opined,

> *Supreme authorities have to pay the service providers so they do not interrupt the systems …therefore the decision of the head office affects my work on the field, which may, in turn, influence my acceptance of the device.*

The role of political will as a key determinant in the acceptance of e-government strategies has also been confirmed by previous studies (Chau & Hu, 2002; Sanchez et al, 2003; Ebrahim & Irani, 2005; Ngulube, 2007). The confirmation of these findings by the study suggests that, if e-government strategies are to be successful and sustainable within MMDAs in Ghana, the actions and inactions of the central government and their representatives at MMDAs play a significant

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role, since cost plays a multidimensional role in acceptance. There is the need for political leaders to demonstrate consistent support for the financial facilitation and commitment to the implementation of e-government, to promote its acceptance.

4.4 Conclusion

The chapter discussed and analysed findings of the research. The theoretical model and the review of related literature, as well as the specific objectives of the study, also guided this process. The study found that online registration of marriage was limited to marriage under ordinance according to Marriages Act (CAP 127), whereas the use of POS devices was limited to the collection of rates at the AMA.

It was also established that apart from PU and PEU, social, political and cultural factors influenced e-government acceptance at AMA. Social factors included cost, trust, ICT training, and corruption. The norms of clients were also found to be cultural influencers of acceptance. The political will of the leaders at the AMA was as a political factor that influenced the acceptance of both e-government strategies.

Also, findings of the study points to the fact that, between the two strategies, the usage of the POS Devices is more accepted as compared to online registration of marriages. The acceptance of the usage of POS devices by staff of AMA was attributed mainly to their high PU the strategy, which was also shaped by adequate ICT training. Most remarkable of factors accounting for the low acceptance of the marriage registration portal was the low level of its PU. Most clients preferred to use the manual application because of socio-cultural issues like, the norms of clients; corruption; cost of e-government usage; and the lack of trust on the part of citizens.

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CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

Having presented and analysed the findings of the study, this chapter sets out to present the summary of findings, the implication of the study, recommendations to aid acceptance of e-government strategies, and a concise conclusion to the entire research.

5.1 Summary of Findings

In view of the calls for the deeper understanding into issues of technology acceptance through qualitative approaches, and the lacuna with regards to the inadequacy of e-government acceptance research in Ghana, and for that matter in MMDAs, the study was initiated with the aim of investigating the acceptance of e-government strategies at the AMA. Case study design was adopted for the study and this necessitated the use of qualitative approach of social research. This gave the researcher the opportunity to interact with twenty-seven (27) respondents, to acquire their subjective opinion on issues relating to the study objectives. After data collection, presentation and analysis, the summary of the findings is presented below.

5.1.1 Extent of deployment of Selected E-Government Strategies

A specific objective of the study was to ascertain the extent of the deployment of the selected e-government strategies. It was established that AMA has launched into the transactional phase of e-government through the application of the online marriage registration. However, it was also

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proven that, the usage of the online marriage registration at the AMA was only limited to the application of marriage under ordinance according to Marriages Act (CAP 127).

The study also found that, the usage of POS devices was limited to the collection of rates. It was established that POS devices have been linked to the GIFMIS software, and this has facilitated inter-agency collaboration between the AMA and other governmental agencies like the Controller and Accountant General's Department and Ministry of Finance and Economic Planning.

5.1.2 Factors in the Acceptance of e-Government strategies

The main aim of the study was to investigate the factors that influence e-government acceptance. Findings confirmed the assumptions of Davis (1989), that both PU and PEU, as well as external factors (Social, Cultural and Political), are influencers in user acceptance of e-government strategies at the AMA.

PU was a critical factor in acceptance of both of the e-government strategies, however, it played out differently in each of the strategies. The PU of the usage of POS of devices was especially found to be influential in its acceptance by staff of the revenue department like the Higher Revenue Inspectors, Internal Auditors and Revenue Collectors. In contrast, the benefits perceived to be associated with e-services like online registration was not compelling enough to induce its acceptance by clients of the marriage registry since of them still preferred manual registration. Similar studies in other geographical settings confirmed that how target users felt a strategy was beneficial to their work or expectations was a critical factor in acceptance of e-government (Susanto & Aljosa, 2015; Kurfalı et al, 2017).

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PEU was found not to be so critical in the acceptance of the e-government strategies. Generally, it was established that staff of the AMA found the use of the POS devices very easy because they are trained adequately on how to use it. Most clients however complained of the user-friendliness of the marriage registration portal of the AMA, since there were no adequate instructions on how to use the portal. It was established that low awareness of e-government service by residents, high cost of running, infrastructural limitations and challenges with the availability of electricity were issues that the selected e-government strategies were saddled with. However, analysis of the research data revealed that PEU neither had strong links with the low level of acceptance of the online registration of marriage, nor, the massive support for the usage of POS Devices in revenue collection.

Social Factors were also established to play critical roles in e-government acceptance at the AMA. Adequate training given to staff of AMA was linked to their acceptance of the use of POS devices in revenue collection. No such education or awareness creation was done for clients in relation online marriage registration, this found to be linked to its low acceptance. The study confirmed that a corrupt act like bribery at the AMA was a practice that has undermined the acceptance of online marriage registration by staff and clients. Again, issues of trust pertaining to the low confidence in AMA to process virtually submitted applications, as well as, the mistrust of the internet due to concerns about internet fraud, hacking of websites and other internet related crimes was influential in the sluggish acceptance of e-services like the online registration of marriage. Cost was also found to influence the acceptance of e-government strategies, by both staff and clients. Cost in terms of administrative cost was perceived to influence a top management member's acceptance of the use of POS devices in revenue collection. Also, from the perspective of clients, the costs associated with the use of e-government strategies were

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critical to acceptance. For instance, the high cost of internet bandwidth was found to be a disincentive to the acceptance of e-services.

The study has found that cultural factors came to play in the acceptance of e-government strategies at AMA. It was established that the norms of clients influenced their acceptance behaviour. It was discovered that clients were used to face-to-face interactions in the accessing services and not comfortable with the conduction of business virtually, the norm of face-to-face transactions was found to be the bases of the rejection of the online registration of marriage by a majority of client-respondents, interviewed for the purpose of the study.

Finally, the will of political leadership and its manifestations at the local authority was ascertained as an influence of user acceptance behaviour. This was due to the role of political figures as the ultimate spending officers at the AMA. This made them responsible for approval of finances for the maintenance of infrastructure needed in the usage of e-government strategies, therefore their actions and inactions were deemed to be critical in user acceptance.

5.2 Conclusion

Throughout the study, the central focus has been to establish the main factors influencing the acceptance of e-government strategies at the AMA. It was also found that five variables, PU and PEU, social, political and cultural factors influenced e-government acceptance. However, these factors are not mutually exclusive, they interrelate. Social factors included cost, corruption, trust and ICT training. The norms of clients were found to also influence acceptance. Target users, also identified the political will of the leaders at the AMA, as a political factor that influenced the acceptance of e-government strategies. The cost associated with the application of e-government

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strategies was the only factor found to affect the acceptance of both e-government strategies negatively.

On the bases of this finding, the financiers of e-government strategies are found to be very powerful in issues of acceptance. Political commitment to e-government was considered key in acceptance of e-government. The immergence of e-government as an anti-corruption tool, which in turn results in its rejection by some public servants is also a clarion call for political leaders to culturally reorient the Ghanaian society on issues of corruption, to institute laws to reward whistle blowers, and hand out stronger punishments to perpetuators of corruption (Yeboah-Assiamah et al, 2016).

5.3 Recommendations

The research was advanced based on the claim the e-government strategies have the potential of transforming local authorities in Ghana. However, findings prove that the acceptance of e-government strategies in arguably one of the most resourceful MMDAs in Ghana is plagued with some limitations. In view of findings, some recommendations have been outlined to promote e-government acceptance.

- Due to the multidimensional nature of cost, and the role of political will in acceptance of e-government strategies at AMA, there is the need for policy makers to encourage citizens and public servants to accept e-government strategies through incentives. For instance, customers who use electronic registration of marriage can be made to pay lesser processing fees as compared to those who use manual, this would encourage citizens to participate through online means.

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- To deal with issues of culture and the outlook of clients and public servants, there is the need for education and awareness creation on the topic of e-government at the AMA. There is need to ensure that both public servants and their clients have the right orientation on ICTs. This can be achieved through regular training of staff, and sensitization of citizens on the benefits and the credibility of e-services, these efforts would eventually mobilize public support for e-government.

5.4 Implications of the Study

The study collected and analyse data to explore issues related to the acceptance of e-government strategies at the AMA. Major conclusions of the study have some implication on the existing literature on e-government and the TAM.

5.4.1 Implications of the Study for Existing Literature

In response to the inadequacy of literature discussing issues on e-government at the local frontiers of governance, the research was advanced to focus on issues of acceptance in a local authority in Ghana. The discovery that the use of e-government strategies may stress the budgets of local authorities suggests that, except there is political support and the dedicated funds to support e-government at the local level in Ghana, most local authority cannot afford the expenses associated with such strategies. The negating role of financial cost in the acceptance of e-government, as found by the study, validates similar revelations by scholars (Awortwi & Owusu, 2007; Miscuraca, 2007; Awortwi & Amega-Serlom, 2015; Amegavi, 2015; Mensah 2016) who stressed that the financial capacity of developing countries poses the most threat to e-government

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adoption. However, these studies neither explored issues bothering on the acceptance nor e-government in the context of MMDAs as local authorities.

The study adequately discussed phenomena of e-government acceptance by target users at AMA. Issues of acceptance were proven to feature in the sustainability of e-government strategies in Ghana. Moreover, the study proved that PU, PEU as well as political, social and cultural factors come to play in the acceptance of e-government.

5.4.2 Theoretical Implications

The study adopted the theoretical model of Davis (1989) to understand the use of e-government strategies at the AMA. The TAM has mostly been adopted in quantitative studies to investigate information systems. TAM has not enjoyed frequent use in qualitative approach, in view of the need for exploration of human experiences and deeper understanding of innovation acceptance, there have been calls for the use of TAM in qualitative studies (Van Biljon & Renaud, 2008; Venkatesh et al, 2013; Vogelsang K. & Steinhüser, 2013).

Also, Davis (1989) asserted that some external variables (social, cultural, political) influences innovation acceptance. The study supported the assertion that these factors are critical to acceptance, moreover the use of qualitative approach offered a deeper examination of specific social, political and cultural issues, pertinent in the case of e-government at AMA.

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5.5 Areas for further Research

The study assessed issues in relation to the acceptance of selected e-government strategies at the AMA. The scope of the study was limited to two strategies, which were the usage of POS devices in rate collection, and electronic registration of marriage. The study revealed that there are other e-government applications being used at the AMA like the GIFMIS, as well as numerous social media platforms (Facebook, Twitter, and WhatsApp) to facilitate the work of the Assembly. Further studies may look at issues related to the acceptance of social media by MMDAs, as these strategies are less costly to administer from the perspective of such local authorities.

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APPENDICES

Appendix A: Interview Guide

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 lived/worked at the AMA?

Below 5 years [ ] 5-10 years [ ] 11-14 years [ ] Above 15 years [ ]

SECTION B: KNOWLEDGE ON E-GOVERNMENT STRATEGIES USED BY AMA

5. What is your understanding of e-government?

6. Do you know of any e-government strategies adopted by the AMA?

7. Do you know of e-marriage Application at the AMA?

8. Do you know of the usage of POS Device in revenue collection?

9. How did you get to know about it?

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SECTION C: ACHIEVEMENTS OF E-GOVERNMENT STRATEGIES

10. What is more beneficial? e- marriage application/ Use of POS or manual means of delivery?

11. How are the e-marriage application and use of POS devices beneficial to the AMA as an institution?

12. How are e-marriage application and the use POS devices useful to clients/ staff of the AMA?

13. What do you think has been achieved through the deployment of POS Devices and e-marriage application at the AMA?

SECTION C: FACTORS AFFECTING E-GOVERNMENT ACCEPTANCE

14. Which of these are more **suitable** for the AMA? e- Marriage Application/ Use of POS Device or manual application?

15. Is it difficult to applying for marriage certification online at the AMA/ to use POS Devices for revenue collection?

16. Do you think processing e-marriage/usage of POS devices in revenue collection is easier than manual/paper applications?

17. How difficult/easy is the use of the e-marriage portal/ usage of POS devices in revenue collection at the AMA?

18. Are there known challenges with e-marriage application / usage of POS devices in revenue collection?

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19. Do you think that Perceived Usefulness of e-Marriage Application/ usage of POS devices in revenue collection affect citizens/staffs acceptance of it?

20. Does the Perceived Ease of Use of e-Marriage Application Portal /usage of POS devices in revenue collection influence clients/citizens' acceptance of the strategy?

21. Why do you like/ dislike these e-government strategies used at the AMA?

22. What do you think will make clients choose to use/ or not to like these e-government strategies?

23. What are the known factors that inform staff/client's decision to support or reject these strategies?

24. In light of these factors, how can the use of e-government strategies be enhanced at the AMA and other MMDAs?

THANK YOU!

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Appendix B: Consent Form

CONSENT FORM

I want to thank you for taking the time to meet with me today. My name is Adu Edmund Poku, an MPhil final year student of the Department of Public Administration and Health Services Management, University of Ghana, Legon. I am interested in knowing about the use of E-government strategies at the Accra Metropolitan Assembly (AMA) and particularly, issues on acceptance of E-government Strategies (Use of POS device in Revenue Collection and e-Marriage registration). E-government has been employed to mean everything from 'online government services'' to 'exchange of information and services electronically with citizens, businesses, and other arms of government' (U.N, 2017). The interview should not take more than one (1) hour. I will be taping the session because I do not want to miss any of your comments. All information that would be given will be used for academic purposes only. This means that your interview responses will only be shared with research team members like my supervisor and external supervisor and we will ensure that all the information given including our reports are used for academic purposes. Also, where you are not comfortable your identity shall not be made known.

Please answer the following and then sign.

YES/NO I have read this form and I am aware that I am being asked to participate in a research study.

YES/NO I agree to be audio recorded by the researcher for the purpose of the study.

YES/NO I voluntarily agree to participate in this study.

Name of Participant..... Signature.....

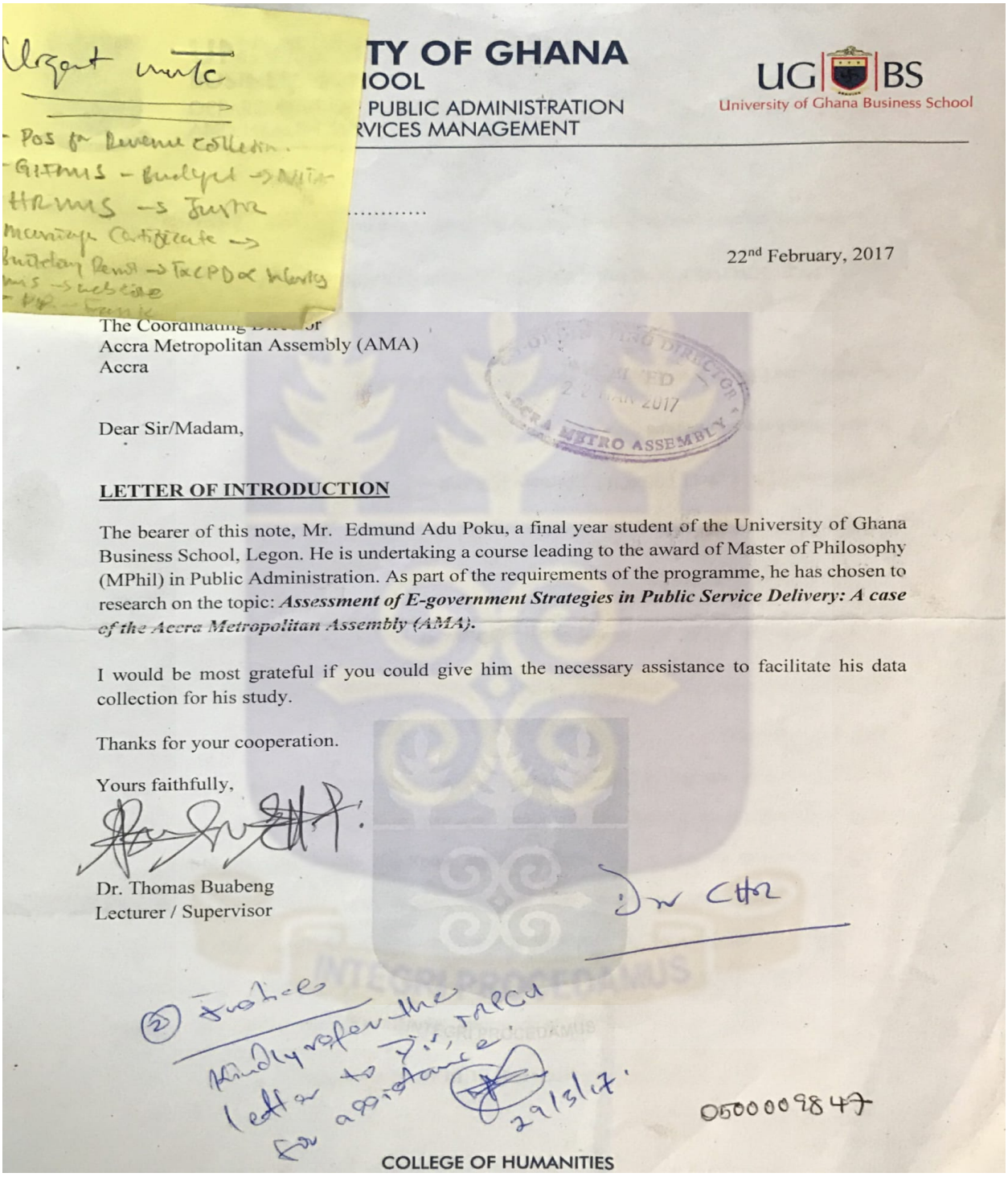
Date.....

Researcher..... Signature.....

Date.....

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Appendix C: Introductory Letter



TY OF GHANA
IOOL
PUBLIC ADMINISTRATION
RVICES MANAGEMENT

UGBS
University of Ghana Business School

22nd February, 2017

The Coordinating Director
Accra Metropolitan Assembly (AMA)
Accra

ACCRA METRO ASSEMBLY

Dear Sir/Madam,

LETTER OF INTRODUCTION

The bearer of this note, Mr. Edmund Adu Poku, a final year student of the University of Ghana Business School, Legon. He is undertaking a course leading to the award of Master of Philosophy (MPhil) in Public Administration. As part of the requirements of the programme, he has chosen to research on the topic: ***Assessment of E-government Strategies in Public Service Delivery: A case of the Accra Metropolitan Assembly (AMA).***

I would be most grateful if you could give him the necessary assistance to facilitate his data collection for his study.

Thanks for your cooperation.

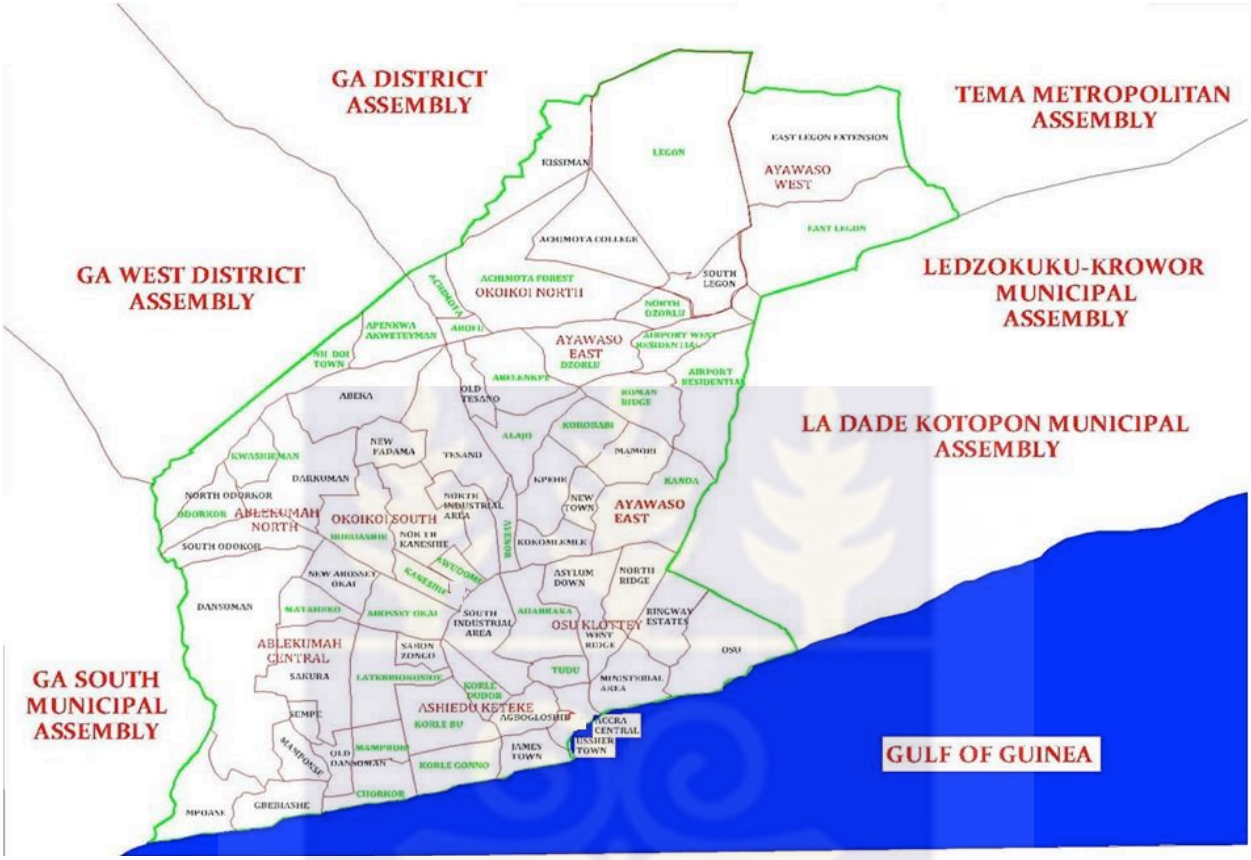
Yours faithfully,

Dr. Thomas Buabeng
Lecturer / Supervisor

COLLEGE OF HUMANITIES

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Appendix D: Map of Accra Metropolitan Assembly



INTEGRI PROCEDAMUS

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Appendix E: Screenshot of the e-Marriage Registration Portal

