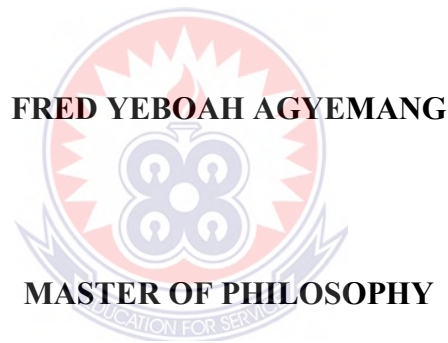


**UNIVERSITY OF EDUCATION, WINNEBA**

**REFORMING LOCAL GOVERNMENT THROUGH THE NATIONAL  
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ANALYSIS OF THE IMPACT OF DIGITALISATION ON SELECTED  
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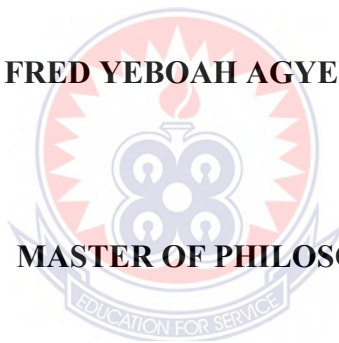


**2022**

**UNIVERSITY OF EDUCATION, WINNEBA**

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PUBLIC SECTOR REFORM STRATEGY (NPSRS) 2018-2023: AN  
ANALYSIS OF THE IMPACT OF DIGITALISATION ON SELECTED  
DISTRICT ASSEMBLIES IN GHANA**

**FRED YEBOAH AGYEMANG**



**MASTER OF PHILOSOPHY**

**A thesis in the Department of Political Science Education,  
Faculty of Social Science Education, submitted to the School of  
Graduate Studies in partial fulfillment  
of the requirements for the award of the degree of  
Master of Philosophy  
(Political Science Education)  
in the University of Education, Winneba**

**DECEMBER, 2022**

## DECLARATION

### Student's Declaration

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

Signature: .....

Date: .....



### Supervisor's Declaration

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

Dr. Maliha Abubakari (Supervisor)

Signature: .....

Date: .....

## **DEDICATION**

This work is dedicated to my family for their unflinching support and prayers throughout my academic journey. May the almighty God abundantly bless you.



## ACKNOWLEDGEMENT

First and foremost, I am grateful to the almighty God for his protection and guidance throughout this journey. Your grace brought me this far. My deepest gratitude also goes to my supervisor, Dr. Maliha Abubakari, for her mentorship, guidance and relentless support she offered me. It has been a great experience working with you. My sincerest appreciation again goes to all lecturers of the Department of Political Science Education for your diverse contributions. Their inputs and constructive comments especially at seminar presentations made over the course of this thesis shaped the final outcome.

I am also grateful to the officials of the Accra Metropolitan Assembly (AMA), Techniman North District Assembly (TNDA) and the Nabdum District Assembly (NDA). Special thanks go to Mr. John Muniru Awini (Assistant Director) and Mr. Israel Pibil Azure of the Nabdum District Assembly; Madam Gladys Atsu Sonoo and Mr. Emmanuel Nii Otoo of the AMA and Mr. Albert and Madam Eunice of the Techniman North District Assembly. I am grateful for your assistance. I further extend my sincere appreciation to the members of the various civil society organisations, community-based organisations, Assembly Members who participated in the study, and all and sundry who directly or indirectly contributed to making this study a success. May the almighty God bless them and replenish all that they have lost.

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## LIST OF ABBREVIATIONS

|        |  |
|--------|--|
| AMA    | : Accra Metropolitan Assembly                        |
| CBOs   | : Community-Based Organisations                      |
| CSA    | : Cyber Security Authority                           |
| CSOs   | : Civil Society Organisations                        |
| DA     | : District Assembly                                  |
| DACF   | : District Assembly Common Fund                      |
| DDF    | : District Development Facility                      |
| DVLA   | : Driver and Vehicle Licensing Authority             |
| ECA    | : Economic Commission for Africa                     |
| EGDI   | : E-Government Development Index                     |
| EPA    | : Environmental Protection Agency                    |
| FOAT   | : Functional Organisational Assessment Tool          |
| GCNet  | : Ghana Community Network                            |
| GES    | : Ghana Education Service                            |
| GNDR   | : Ghana Domain Name Registry                         |
| GoG    | : Government of Ghana                                |
| GRA    | : Ghana Revenue Authority                            |
| ICT    | : Information and Communication Technology           |
| ICT4AD | : ICT for Accelerated Development                    |
| IT     | : Information Technology                             |
| LGA    | : Local Government Authority                         |
| MDAs   | : Ministries, Departments and Agencies               |
| MID    | : Motor Insurance Database                           |
| MLGRD  | : Ministry of Local Government and Rural Development |

|        |  |
|--------|--|
| MMDAs  | : Metropolitan, Municipal and District Assemblies                                      |
| MMDCE  | : Metropolitan, Municipal and District Chief Executive                                 |
| NCA    | : National Communications Authority  |
| NCSS   | : National Cyber Security Secretariat  |
| NGO    | : Non-Governmental Organisation  |
| NITA   | : National Information Technology Agency   |
| NPM    | : New Public Management  |
| NPSRS  | : National Public Sector Reform Strategy   |
| OSM    | : Office of the Senior Minister  |
| PARDIC | : Public Administration Restructuring and Decentralization<br>Implementation Committee |
| PAYD   | : Purim African Youth Development  |
| PKI    | : Public Key Infrastructure  |
| PNDC   | : Provisional National Defence Council   |
| PSRRP  | : Public Sector Reform for Results Project   |
| SAP    | : Structural Adjustment Programme  |
| SBMS   | : Secured Border Management System   |
| SIM    | : Subscriber Identity Module   |
| TNDA   | : Techiman North District Assembly   |
| TOE    | : Technology–Organisation–Environment  |
| TQM    | : Total Quality Management   |
| UNDP   | : United Nations Development Programme   |
| UNESCO | : United Nations Educational, Scientific and Cultural Organisation                     |
| USSD   | : Unstructured Supplementary Service Data  |
| WIDO   | : Women Integrated Development Organisation  |

## ABSTRACT

This study investigated the extent to which the digitalisation component of the NPSRS (2018-2023) reform has impacted local service delivery and social accountability mechanisms in the Accra Metropolitan Assembly, the Techiman North District Assembly and the Nabdam District Assembly. Through the lens of the Technology-Organisation-Environment Theory, the study adopted the case study design within the qualitative research approach to explore the research problem. Both purposive and snowball sampling techniques were employed to draw 27 informants across the three districts. The main research instrument used was semi-structured interviews. Three major findings came out of the study: First, all the assemblies have attained some minimal level of digitalisation in terms of technology, human resources and organisational processes. Second, digitalisation has had more positive impact on the internal operations of the assemblies than on local service delivery and social accountability mechanisms. Despite some strides made, the reform has not been effective at transforming the quality of local service delivery and social accountability mechanisms in the DAs. Third, digitalisation has had a disproportionate impact on the operations of the DAs. The Excessively poor technological, organisational and environmental context of the Nabdam DA impeded the Assembly's ability to implement more digitalised programmes. The study identified some challenges that endanger the ability of MMDAs to digitalise. These include financial constraints, IT personnel deficits, low patronage of digitalised programmes, poor digital infrastructure and the extremely poor local contexts within which some of the DAs operate. The study recommends that increasing financial support to the assemblies; improving digital infrastructure; augmenting the ICT human resource capacities of the MMDAs, and intensifying education among residents of the ongoing programme would go a long way to ensuring programme success.

## CHAPTER ONE

### INTRODUCTION

#### 1.0 Introduction

This chapter discusses the background to the study and presents the statement of the research problem, research questions and research objectives. It also discusses the significance, scope and delimitation of the study. The final section presents the organisation of the study.

#### 1.1 Background to the Study

The redefinition of the role of the state and the desire to overhaul administrative systems to deliver efficient and effective public services have always pushed governments the world over to reform their public organisations and develop more innovative solutions to protect essential public service delivery frameworks (Ayee, 2008). In Ghana, this growing desire has led to successive governments' continuous investment in public sector digital platforms over the past decades (Kpessa-Whyte, & Dzisah, 2022; Demuyakor, 2021; Kubuga, et al., 2021; World Bank Group, 2019a). In recent years, 'digitalisation' has become the buzzword in policy circles as it is seen as the vehicle for change in terms of service provision, participation, transparency and accountability in government businesses (Kpessa-Whyte & Dzisah, 2022). Through digitalisation, government particularly seeks to leverage the numerous opportunities that ICTs present to stimulate jobs, improve productivity, and accelerate inclusive growth. Government also aims to bring governance closer to the people and has pledged to put digital economic transformation at the center of the country's 'Ghana Beyond Aid agenda' (World Bank Group, 2019a). Underlying this renewed interest in information technology is the acceptance that universal adoption and effective application of digital technologies have the potency to shape the country's pathway to

development by spurring innovation, economic development and job creation in several vital areas of the economy; as well as alter traditional business models and offer a better quality of life for citizens (Sy et al., 2019; World Bank Group, 2019a). This is consistent with the notion that information technology is a game changer that can offer the Global South the leapfrog opportunity to skip aspects of the development curve (Kubuga, et al., 2021).

In local government, governments have over the years attempted to leverage the many benefits associated with ICTs to find lasting solutions to the stark institutional and structural challenges facing Ghana's decentralization system. The overall objective has been to overhaul Metropolitan, Municipal and District Assemblies (MMDAs) to deliver more efficient and effective services. Approaches have primarily centered on integrating information technology with local revenue mobilisation and service delivery (Adu et al. 2019; Kweku, 2020; Dzansi et al., 2018). The Local Government Act, 2016 (Act 936) particularly implores MMDAs to facilitate the establishment of a structure for stakeholder participation including the use of ICT-based platforms. Despite some progress made, studies note that not much has been achieved in this regard. Dzansi et al. (2018) have established that just 33% of Ghana's 261 MMDAs have an electronic database for firms or properties; 17.8% use software to send bills/demand notifications; 16% use software to maintain and update valuation lists; and 41% use software to keep and update street names and addresses (Dzansi et al., 2018). Moreover, studies continue to point out the structural deficiencies and obstacles confronting the full realisation of a more participatory, transparent, accountable, efficient and effective local government system in the country (Otoo & Danquah, 2021; Gumah & Aziabah, 2020; Kpentey, 2019).



The National Public Sector Reform Strategy (NPSRS) 2018-2023 was launched in August 2018 by the Government of Ghana to remedy the numerous challenges facing the Ghanaian public sector and present a new approach to the promotion of efficiency and effectiveness in government businesses, through an establishment of an open and impartial public sector at all levels of government. The five-year reform strategic plan is aimed at empowering public institutions to deliver top-quality services through the efficient, effective, innovative and transparent implementation of governmental policies and programmes, in collaboration with citizens and the private sector for sustained national development (Government of Ghana, 2017). A major area of concern in the Government's pursuit of reforms is the strengthening of local government structures and the digitalisation of public sector services and systems. Pillar five (5) of the strategy is specifically devoted to reforming decentralisation through strengthened local government structures; while pillar six (6) seeks to digitalise the activities, services and systems of public institutions including Metropolitan, Municipal and District Assemblies (MMDAs) by 2023 (GoG, 2017).

Pursuant to this, a number of digital platforms have already been developed in an effort to improve governance and the delivery of public services. These include the paperless port operation system, online passport application system, e-procurement, e-immigration, e-parliament, e-judiciary; driver's license and vehicle registration among others. The government has also undertaken a number of keystone projects including the Ghana Card, and a comprehensive Digital Address System, which is essential for digital commerce, and more aggressive automation of government business processes (Kpessa-Whyte & Dzisah, 2022; Agbevede & Tweneboah-Kodua, 2020; World Bank Group, 2019a; Dagba et al., 2018)

A few years into implementation, these initiatives have already started paying dividends in some selected Ministries, Departments and Agencies (MDAs) through improved efficiency, transparency and accountability in service delivery and administrative procedures. Nevertheless, a number of challenges exist that affect the government's digitalisation drive (Kpessa-Whyte & Dzisah, 2022; Demuyakor, 2021, 2020; Oxford Business Group, 2021; Agbevede & Tweneboah-Kodua, 2020; World Bank Group, 2019a).

## **1.2 Problem Statement**

Studies on ICT –related reforms in Africa have generally painted a disparaging picture with most of such reforms either failing or producing marginal results (Adu, et al. 2019; Mpinganjira, 2013; Naidoo, 2012; Heeks, 2003). Despite Ghana's remarkable strides in ICT penetration and adoption over the past two decades, studies point to certain core challenges that threaten the government's digitalisation drive (Kpessa-Whyte & Dzisah, 2022; Demuyakor, 2021; World Bank Group, 2019a; Dagba, 2018; Osei-Kojo, 2016). The World Bank Group (2019a) noted that the National Information Technology Agency (NITA), the government's ICT policy implementation arm and the main force behind the digital transformation of Ghana's public sector, lacks the institutional capacity and financial resources to implement the ambitious digital government platforms that the government envisions. Similar to this, Kpessa-Whyte and Dzisah (2022) found that the majority of basic services that are being digitalised began with money from the World Bank but many of them stalled once the funding ceased.

Studies also show that despite continued investments in ICT infrastructure, the country still lags in terms of internet penetration, which is a key requirement for

digitalisation (Kpessa-Whyte and Dzisah; 2022; World Bank Group, 2019a; Mensah, 2019; Dagba et al., 2018; Osei-Kojo, 2016). Consequently, the digitalisation of basic services suffers inclusion deficits since poor internet services impede people's ability to access such digitalised services (Kpessa-Whyte and Dzisah; 2022). Again, most digitalisation programmes suffer low adoption in Ghana due to low public trust in e-services and widespread ignorance of the existence of e-government services among Ghanaians (World Bank Group, 2019a). Dagba et al. (2018) contend that the initial difficulties that characterise most e-Government projects in Ghana may be the cause of citizens' reluctance to use such services. Besides, governments do not pay much attention to creating citizens' awareness of such services.

Additionally, issues of the digital divide, reflecting in people's inability to afford the high cost of internet devices and data are major factors for citizens' inability to access and use basic digitalised services. Additionally, the dynamics between rural and urban areas and educational attainment have a significant impact on how people can access and use basic digital services, which shapes the inherent and existing disparities (Kpessa-Whyte and Dzisah; 2022; Dagba et al., 2018).

Other studies also contend that the rural-urban and the south-north divide have always been decisive determinants of reform outcomes. The World Bank Group (2019a) pointed out that most of the infrastructure in Ghana is concentrated in urban and commercial areas with large sections of the country's rural population without effective coverage (World Bank Group, 2019a). Consequently, there exists a wide gap between users and non-users of the internet due to inadequate internet infrastructure and poor internet access in rural areas (Dagba et al., 2018). Similarly, Haruna (2003) argues that previous reforms which yielded results mostly favoured the 'golden

triangle' or the southern urban regions. Konadu-Agyemang (2003) also made a common revelation when she contended that previous reforms mainly favoured urban residents and not rural people. Particularly on NPSRS, Agbevede and Tweneboah-Kodua (2020) have noted that the reform could not escape the pitfalls of most of the previous reforms because it is donor-driven, assumed the top-down approach to implementation, and emerged from the manifesto of a political party (Agbevede & Tweneboah-Kodua, 2020). Consequently, the study declared the reform dead on arrival. All these reflect the geography of public sector reforms in Ghana.

There is generally an overwhelming literature on both public sector reforms and digitalisation in Ghana (Kpessa-Whyte & Dzisah, 2022; Demuyakor, 2021; Agbevede and Tweneboah-Kodua 2020; World Bank Group, 2019a; Ayee, 2018; Dagba, 2018; Osei-Kojo, 2016). Notwithstanding the abundant literature that has been devoted to digitalisation over the years, scanty evidence exists on the impact of NPSRS on local government units in Ghana. Most studies which have focused on the impact of ICTs on public service delivery in Ghana have neglected local government units. Existing body of literature mostly focused on the impact of digital technologies at the national levels and their potential to increase efficiency in the provision public services. Demuyakor (2021) assessed the benefits and challenges of deploying digital governance services in Ghana. His study focused on selected services such as e-driver's License, National Digital Property Addressing System Medical, Drone Technology and e-Health Insurance Renewal system etc. Osei-Kojo (2016) examined the impact of e-government on public service quality in Ghana and concluded that even though e-government has contributed to improvement in the quality of public services in Ghana, weak ICT infrastructure, low education, and frequent power outages among other challenges undermined the potential of e-government to

transforming public service quality in Ghana. The study however focused on other institutions such as Ghana Revenue Authority (GRA), Driver and Vehicle Licensing Authority (DVLA), Ghana Education Service (GES), Parliament among others, but did not include local government institutions. Moreover, the study was conducted prior to the implementation of NPSRS and therefore does not speak to impact the impact of NPSRS. Mensah's (2019) study also adopted the technology acceptance model to explore how government capacity and e-government performance influence the adoption of e-government services and identified a positive correlation between the two variables and adoption. Dagba et al. (2018) also sought to assess e-government initiatives and major projects in Ghana. The study identified that Ghana is making considerable strides in allowing citizens and businesses to access and pay for services through an online network infrastructure. However, just like Osei-Kojo (2016), the study did not include MMDAs. Moreover, the study mainly dwelled on secondary sources of data from peer-reviewed journal articles, government policy documents and web sources.

Similarly, Kpessa-Whyte and Dzisah's (2022) study on the state of digitalisation projects and services in Ghana focused on other sectors including the education sector, the justice system, the agricultural sector, the health sector, immigration services, trade services and financial services among others. On NPSRS (2018-2023), a significant scholarly contribution was made by Agbevede and Tweneboah-Kodua (2020). The study examined whether public sector reforms in Ghana is a myth or reality. It established that even though NPSRS made some gains, excessive partisanship, narrow political commitment, donor-funding, the time-boundedness of the reform among others militated against its success. Consequently, the study concluded that public sector reform in Ghana is a myth. However, the study focused

on the reform in general but not on the digitalisation component of it. Secondly, the study does not speak to the impact of the NPSRS on local government units. As it stands, no study, to the best of the knowledge of this research, has been conducted to ascertain the impact of NPSRS on Ghana's local government. This study, therefore, explored how NPSRS has affected local service delivery and social accountability mechanisms in selected DAs in Ghana. Specifically, it investigated the extent to which the digitalisation component of the reform has affected local service delivery and social accountability mechanisms in the Accra Metropolitan Assembly (AMA), the Techiman North District Assembly (TNDA) and the Nabdam District Assembly (NDA).

## **1.2 Research Questions**

The study answers the following questions:

1. To what extent have the MMDAs under study been digitalised?
2. How has digitalisation affected local service delivery in the MMDAs under study?
3. How has digitalisation worked to promote local participation, transparency and accountability in the MMDAs under study?
4. What are the challenges to the implementation of digitalisation in the MMDAs under study?

## **1.3 Research Objectives**

Generally, the study examined the extent to which digitalisation of MMDAs has affected local service delivery and social accountability mechanisms in the Accra Metropolitan Assembly (AMA), the Techiman North District Assembly (TNDA) and the Nabdam District Assembly (NDA).

Specifically, the study sought to examine the following objectives:

1. The extent to which the MMDAs under study have been digitalised.
2. How digitalisation has affected local service delivery in the MMDAs under study.
3. The extent to which digitalisation has worked to promote social accountability mechanisms in the MMDAs under study.
4. The implementation challenges of the digitalisation programme in the MMDAs under study.

#### **1.4 Significance of the Study**

This study makes a three-fold contribution to literature. Firstly, it makes a general contribution to the burgeoning empirical studies on public sector e-governance reforms in Ghana. Secondly, it extends the literature on the impact of NPSRS on local government institutions in Ghana. Specifically, it sheds light on the extent to which the digitalisation programme imbibed in the reform has affected local service delivery and social accountability mechanisms in Ghana. Thirdly, considering the fact that the reform is still ongoing, the study serves both as a formative assessment, the findings of which will help policy actors and stakeholders to take the necessary corrective measures to ensure the intended outcomes are realised; and as guide to policy makers who undertake similar reforms in the future.

#### **1.5 Scope and Delimitation of the Study**

This study explored the impact of NPSRS (2018-2023) on local government institutions in Ghana. It specifically ascertained the extent to which the reform has contributed to the digitalisation of MMDAs, and affected local service delivery and social accountability mechanisms in Ghana. It was carried out in the Accra



Metropolitan Assembly in the Greater Accra Region, the Techiman North District in the Bono East Region, and the Nabdam District in the Upper East Region. The study was limited only to staff of the MMDAs under study, civil society organisations (CSOs), community-based organisations (CBOs), as well as Assembly Members in the selected DAs. The choice of this population lies in the fact that they are key stakeholders of the reform and were therefore in a better position to provide all the necessary information to complete the study.

### **1.6 Organisation of the Study**

The study is organised into five chapters. The first chapter presents the background of the study, statement of research problem, the research questions and objectives, significance of the study, scope and delimitation of the study as well as the organisation of the study. Chapter Two presents a review of relevant literature and theoretical framework underpinning the study. The theoretical framework reviews theories on the approaches of public sector reforms, while the literature review explores literature on public sector reforms across the globe, definitions and rationale for public sector reforms, cases of impact of reforms on service delivery and social accountability mechanisms, challenges of public sector reforms in Africa among others. The chapter also reviews literature on the importance of local (micro) contexts on reform outcomes. Chapter Three, which discusses the methodology, constitutes the research design, study sites/locations, sampling and sampling technique, sources of data, data collection procedures and data handling among others. Ethical issues and trustworthiness of the study are also discussed in the chapter. Chapter Four presents data analysis and discussion of research findings; while the final chapter comprises the summary of findings, conclusions and recommendations of the study.

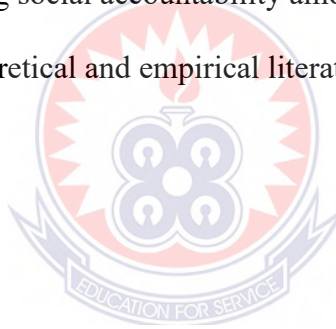


## CHAPTER TWO

### LITERATURE REVIEW

#### 2.0 Introduction

This chapter presents a review of relevant literature on digitalisation and explores the theoretical foundation behind the research. It is divided into two main parts. Part one presents the theoretical framework while the second part reviews literature on the objectives of the study and other related topics. These include conceptual definition of terms, literature on NPSRS (2018-2023), the New Public Management (NPM) and digitalisation, the context of digitalisation in Ghana; the prospects of digitalisation in promoting efficiency and effectiveness in service delivery as well as prospects of digitalisation in promoting social accountability among others. The figure 1 below is a summary of both the theoretical and empirical literature reviewed for the study.



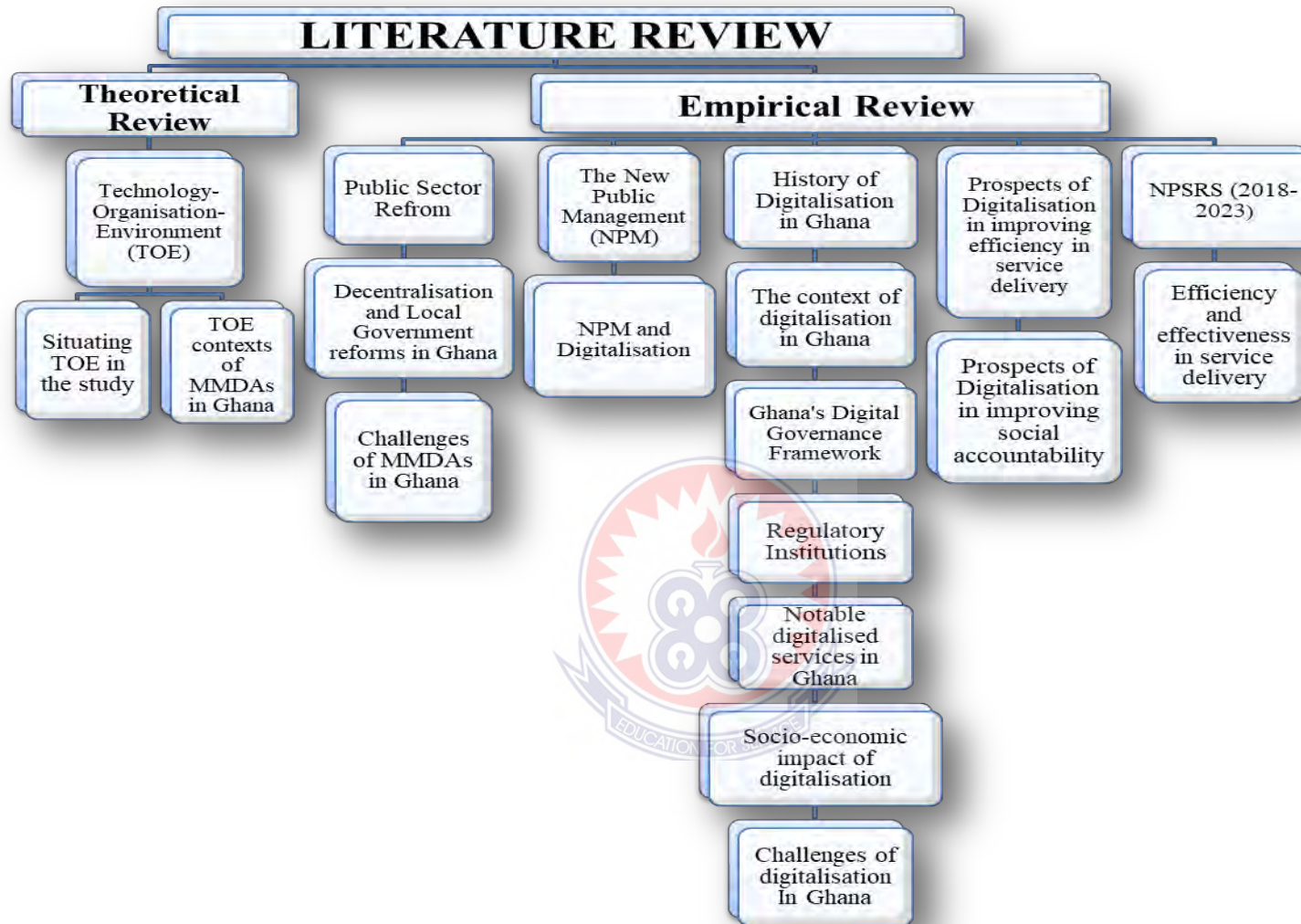


Figure 1: Summary of literature review

## **2.1 Theoretical Framework**

### **2.1.1 The Technology–Organisation–Environment (TOE) Theory (Tornatzky & Fleisher, 1990)**

This study was conducted under the lens of the Technology-Organisation-Environment (TOE) model, propounded by Tornatzky and Fleisher (1990). The TOE model is founded on the concept of new technology adoption, making it widely adopted in various studies (Justino et al. 2022; Mahlangu & Ruhode, 2021; Li, 2020; Awa et al. 2017; Baker, 2011). The theory offers practical insights for understanding the organisational elements that influence an organisation's adoption of new technologies (Mahlangu & Ruhode, 2021). The TOE holds that three main elements within an organisational context influence adoption. These include the technological context, the organisational context, and the environmental context (Tornatzky & Fleisher, 1990). All three are thought to have a direct influence on technological innovation and may either facilitate or impede adoption and implementation.

On the technological context, Tornatzky and Fleisher (1990) posit that before adopting technological innovation, organisations should first consider the characteristics of the technological structure of their internal and external settings. While technologies in the external setting include those that are marketed but not yet used by the organisation, those in the internal setting relate to technologies that are already available and in use within the organisation (Justino et al. 2022; Baker, 2011). According to Baker (2011), an organisation's current technologies play a significant role in the adoption process because they determine the amount and speed of technological change an organisation may make. Additionally, external technologies have an impact on innovation by defining the boundaries of what is feasible and demonstrating to organisations how technology may help them change and adapt

(Baker, 2011). Technological contexts, in this case, include both hardware and software (Mahlangu & Ruhode, 2021). TOE stipulates that it is imperative for organisations to take cognizance of the important technologies available both in their internal and external setting before adopting and using new technologies since such technologies determine the extent to which the organisation can digitalise (Justino et al., 2022; Mahlangu & Ruhode, 2021; Li, 2020; Awa et al., 2017; Baker, 2011; Tornatzky & Fleisher, 1990).

The organisational context considers the characteristics and resources of the organisation including top management support, resources available, skills and competencies of employees, managerial structure, intra-firm communication processes, organisation size etc. (Justino et al., 2022; Mahlangu & Ruhode, 2021; Li, 2020; Awa et al. 2017; Baker, 2011; Tornatzky & Fleisher, 1990). The theory holds that where these factors are favourable, adoption will succeed but may fail where they are not. For instance, in their analysis of the organisational setting, Justino et al. (2022) focused on top management support, the existence or absence of which, may either facilitate or obstruct implementation. Again, organisational features like readiness and factors that drive strategic orientation directly affect implementation (Justino et al., 2022). Additionally, organisational communication practices can either promote or inhibit innovation (Baker, 2011).

The environmental context focuses on the elements of the organisational setting that influence the adoption and implementation of new technologies. TOE holds that an organisation's adoption of technology is influenced by the environment in which it operates. The environmental context includes the regulatory environment; the demographic characteristics of the masses, the presence or absence of technology

service providers etc. (Justino et al., 2022; Mahlangu & Ruhode, 2021; Li, 2020; Awa et al., 2017; Baker, 2011).

The Technology-Organisation-Environment theory was adopted as the underpinning theory in this study because of the flexibility the approach offers. The framework focuses on multi-dimensional factors such as the technological, organisational, and environmental contexts of organisations. It was therefore useful in exploring a wide range of factors that shaped the adoption and implementation of the digitalisation programme in the MMDAs under study. Moreover, Awa et al., (2017) reiterate that the model is useful for organisational-level analysis because it focuses on higher-level elements (technological, organisational, and environmental contexts) within organisations rather than the individuals who work in those organisations. Behavioural models, such as the theory of reasoned action, the theory of planned behaviour, and the technology acceptance model, are useful in understanding technology adoption at the individual level (Awa et al., 2017). TOE was therefore deemed suitable for this study because the research aimed to determine how digitalisation has affected public organisations' operations rather than those of individuals.

### **2.1.2 Situating the TOE theory in the study**

The TOE model has key implications for policymakers as far as the implementation of digitalisation, and for that matter, the NPRS is concerned. The theory holds that certain factors such as technology, organisational characteristics and local contexts have a direct impact on the implementation of digitalisation programmes.

A key characteristic of the theory is that local contexts vary, and they directly or indirectly affect organisations that operate in them. Therefore, it is imperative for

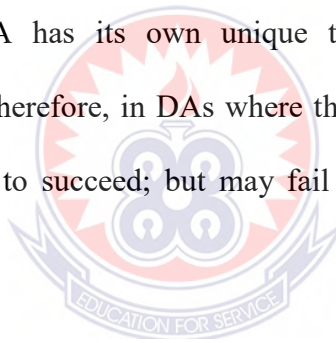
policy actors to pay close attention to those unique contexts and tailor measures to respond to them. Thus a wholesale approach may not produce the desired results uniformly. Successful implementation, therefore, requires broad stakeholder engagements and imbuing social accountability mechanisms in the design and implementation of programmes. This will ensure that certain structural and institutional pitfalls that are likely to mar implementation are identified earlier and dealt with even before implementation.

Secondly, requisite technologies and digital infrastructure are key for the successful implementation of digitalisation. They form the basis and foundation upon which digitalisation rests. TOE holds that a firm's existing technologies are important in the adoption process because they set a broad limit on the scope and pace of technological change that a firm can undertake (Baker, 2011). This implies that the number and type of digitalised programmes an MMDA is able to implement are determined by the number and nature of technologies at the Assembly's disposal. For instance, an assembly cannot implement a digitalised programme at all, if it does not have the requisite technologies to implement. Even where these technologies exist, an assembly whose computers run on say windows 8.1. interface cannot implement a programme that runs on windows 10 interface. Technologies, therefore, set limits to the assemblies' digitalisation drive. For policy success, it is imperative that policymakers take cognisance of these factors and tailor measures to respond to them.

Moreover, the nature and characteristics of an assembly may influence programme outcomes. There are several ways in which organisational context affects adoption and implementation decisions. First, systems that connect internal organisational units or penetrate internal boundaries spur innovation (Baker, 2011). Again, adoption is

associated with the presence of informal linking agents, such as product champions, boundary spanners, and gatekeepers. Additional examples of such systems are cross-functional teams and individuals who have formal or informal connections to other departments or other value chain partners (Baker, 2011). On the other hand, widespread apathy, resistance to change and indifference among employees may affect the organisation's ability to adopt such innovations. Furthermore, employees who have limited ICT skills and expertise may not be able to adopt such innovations. It is therefore imperative that policy actors pay attention to these factors in order to ensure policy success.

Lastly, the theory is also useful in explaining disparities in programme outcomes. This is because each MMDA has its own unique technological, organisational and environmental context. Therefore, in DAs where these contexts favour digitalisation, implementation is likely to succeed; but may fail in DAs where such contexts are unfavourable.



### **2.1.3 Technological, Organisational and Environmental Contexts of MMDAs in Ghana**

Studies have established that the technological, organisational and environmental contexts of Ghana's MMDAs do not present favourable conditions for digitalisation. In terms of organisational contexts, MMDAs lack the requisite human resource base with the requisite ICTs and managerial skills to foster the implementation of the government's digitalisation programme (Debrah, 2014; Gyaase, 2014; Ayee, 1992). The World Bank Group (2019a) noted that only a few Ghanaians have the requisite digital skills and experience beyond the basic use of a computer or tablet. The situation is worst with MMDAs. Due to the rural nature of most DAs, attracting



qualified civil servants to stay in these districts is a challenge mainly because of the lack of basic amenities in the rural areas (Gyaase, 2014; Ayee, 1992).

Studies on the technological contexts of MMDAs in Ghana also paint a disparaging picture. Dzansi et al., (2018) have established that just 33% of Ghana's 261 MMDAs have an electronic database for firms or properties; 17.8% use software to send bills/demand notifications; 16% use software to maintain and update valuation lists; and 41% use software to keep and update street names and addresses.

Moreover, poor environmental factors such as the absence of robust infrastructure in most parts of the country may also affect implementation. Internet penetration—a prerequisite for digitalisation—still lags behind in Ghana (Kpessa-Whyte and Dzisah; 2022; World Bank Group, 2019a; Mensah, 2019; Dagba et al., 2018; Osei-Kojo, 2016). Moreover, most of the infrastructure in the country is concentrated in urban and commercial areas with large sections of the country's rural population without effective coverage (World Bank Group, 2019a). MMDAs and residents in rural districts, therefore, suffer from erratic service or service unavailability (Adam, 2020; Al-Mushayt, 2019; Dagba et al., 2018).

Furthermore, poor environmental factors such as low ICT adoption among residents in some of the DAs under study also present significant hurdles to digitalisation. In the TNDA for instance, only 45.9% of residents 12 years and older have mobile phones, while only 3.7% own desktop/laptop computers in the District. With regards to internet usage, only 2.3% have access to the use of internet facilities. This is lower than the regional average of 3.4 per cent and the national average of 7.8 per cent (GSS, 2014b). In the Nabdam District, about 19% per cent of the population 12 years



and older own mobile phones, while 1.6% used Internet facilities. Only 0.8% of the total household population owns laptop computers (GSS, 2014c).

Other social factors such as poor basic education, low literacy level and low levels of ICT literacy among residents especially in rural districts also present unfavourable conditions for the digitalisation of MMDAs (Kpessa-Whyte and Dzisah; 2022; Demuyakor, 2021; World Bank Group, 2019a; Dagba et al., 2018)

## **2.2. Empirical Literature Review**

This section provides a review of empirical literature on administrative reforms. It is organised under the following themes: Conceptual definition of terms, decentralization and local government in Ghana; the New Public Management (NPM); NPM and digitalisation reforms, the context of digitalisation in Ghana; the prospects of digitalisation in promoting efficiency and effectiveness in service delivery as well as prospects of digitalisation in promoting social accountability; literature on NPSRS (2018-2023) among others.

### **2.2.1 Public sector reform**

Governments around the world have always been challenged to reform their economies and come up with more creative solutions to protect crucial public service delivery frameworks and cushion their public administration systems. Public service organisations saw dramatic transformations after the Second World War in most nations. Such reforms were initially concentrated on the defence sector, the economic sector, and the administrative, political, and law enforcement sectors (Lufunyo, 2013). In recent decades, public sector reforms in both advanced and developing countries have placed a particular emphasis on the public sector's effectiveness, efficiency, economy, and value for money, with the ultimate objective of improving governance

and service delivery. This is due to the realisation that a competent public sector, especially in emerging nations, is essential to driving socioeconomic development and eradicating poverty (Economic Commission for Africa (ECA), 2010). As a result, since the 1980s, Africa has witnessed a wave of reforms, aimed at enhancing the efficiency and effectiveness of the civil service as well as ensuring its performance, capacity, and sustainability over the long term. The overarching goal of these reforms has been to raise the standard of public service delivery, enhance the capacity of public organisations to carry out core government functions and foster long-term socioeconomic development (ECA, 2010).

Public sector reform lacks a generally acknowledged definition due to its complexity. There are often disagreements among academics when attempting to define the term. While some regard administrative reforms as alterations to bureaucratic institutions, others see it as a continuous process, while still others see it as stakeholder politics, etc. For instance, the Economic Commission for Africa (ECA) describes the notion as processes and practices that are focused on enhancing institutions' capacities to make policies and provide services in an effective, efficient, and responsible (ECA, 2010).

Caiden (1969), on the other hand, views administrative reforms as stakeholder interactions that directly shape the course of events. Administrative reform, in Caiden's words, is 'the artificial inducement of administrative transformation, against resistance,' and it consists of three concepts that are related to one another: (1) Moral purpose—the urge to improve the status quo. (2) Artificial transformation, which departs from established practices and natural change processes, and (3) administrative resistance, which presupposes opposition (Caiden, 1969 in Ayee, 2008: 15). By establishing a relationship between procedural reforms and the creation of a

more effective and efficient bureaucracy, Agbevede and Tweneboah-Koduah (2020) embrace various point of views. According to the authors, administrative reform is a deliberate effort aimed at modifying and transforming non-performing public agencies into performing ones. Administrative reform, in the authors' words, is about enhancing the bureaucracy's productivity to carry out its duty of providing efficient and effective public goods and services (Agbevede & Tweneboah-Koduah, 2020: 138).

From the foregoing, administrative reform can be defined as an intentional effort to strengthen bureaucratic institutions, revamp administrative systems, and restructure government work processes for better governance and the delivery of effective and efficient public services.

Despite the variations in terminology, administrative reform often consists of the following components: (1) Administrative reform is a purposeful action to alter governmental bureaucracies for better performance. (2) It is a continual, never-ending process. The goal of administrative reforms is to increase the civil service's effectiveness and efficiency while also ensuring its long-term performance, capacity, and sustainability. The ultimate objective is to improve the standard of public services provided to residents and their ability to carry out fundamental governmental duties, both of which are necessary to foster long-term socioeconomic development. (3) It is synonymous with innovation, which is the introduction of fresh perspectives and new talent into the process of formulating policies and managing administrations. (4) It is intensely political and takes place in an organisational setting (Agbevede & Tweneboah-Koduah, 2020; Essuman-Mensah, 2019; ECA, 2010; Ayee, 2008).

The overarching objective of public sector reform is excellence in performance in public sector management. They are put in place to restructure government administrative structures with the aim of enhancing the public sector's functioning with real effectiveness, efficiency, hard-core competency, and financial discipline (Essuman-Mensah, 2019; Omoyefa, 2010: 19). Essuman-Mensah (2019) asserts that the main goals of public sector reforms are twofold: The government's objectives are first aligned with the traditional roles and responsibilities of the state in society— issues of ‘what to do’. Secondly, they enhance procedures and processes for performing these responsibilities in a more effective, efficient, transparent, and accountable manner. As a result, they address the ‘how to’ questions. In his study, Omoyefa (2010: 18) argues that public sector reforms have three main goals: first, they seek to improve the delivery of fundamental government services that have an impact on the living standards of the poor; second, to foster the growth of the private sector; and third, to make the state or government institutional apparatus more market-friendly, lean, managerial, decentralized, and customer-friendly in the hopes that it will better meet its societal goals.

It can therefore be gleaned from the above that public sector reforms aim at the institutional restructuring of the public sector, with the aim of enhancing the efficiency and effectiveness of public sector institutions.

PSRs therefore typically aim to:

1. Improve the public service's quality and streamline its processes;
2. Reform the structure and organisation of public institutions to promote the ability of the government to function effectively.
3. Develop and manage the human resource base;
4. Develop and implement communication and awareness-raising initiatives.

5. Improve public sector financial management.
6. Improve the public sector's decision- and policy-making processes, etc.

### **2.2.2 Decentralisation and local government reforms in Ghana**

Since the country's independence, successive governments have endeavoured unsuccessfully, to implement policies and programs that would decentralize the country's administrative machinery. Despite their professed aim and rhetoric, studies have observed that successive governments continued to be highly centralized in practice, if not in structure, and carried out the majority of their activities through central direction and control (Ohemeng & Ayee, 2016; Ayee, 1989).

The local government administration in the country underwent its most radical upheaval during the military regime of Flight Lieutenant Jerry Rawlings under the Provisional National Defence Council (PNDC) (Kpentey, 2019). Upon the assumption of office, Rawlings established the Public Administration Restructuring and Decentralization Implementation Committee (PARDIC) to examine and review all local governance reforms and initiatives that had been discussed and implemented since independence (Hoffman, 2010). The PNDC regime published an 11-point decentralization plan in 1982 with the aim of improving the relationship between the state and local governments and fostering democracy, institutional empowerment at the local level, stronger and more effective local governance, and overall government efficiency. The regime advocated for the encouragement of participatory government with a strong emphasis on the grassroots level and declared the deconcentration of the central and upper levels of government. In other words, the regime's guiding principle was to create a decentralization plan that was intended to 'transfer authority to the people' and bring 'democracy to the doorstep' of the populace (Kpentey, 2019). The

Akuse group was commissioned in 1987 and developed a development plan for the local government system (Hoffman, 2010).

Consequently, the Assembly system of local government was established in 1988 with the passage of PNDC Law 207, creating the metropolitan, municipal, and district assemblies as local authorities. Legislative, executive, budgetary, planning and rating authority was vested in assemblies. Provisions for the representation of the people included elected and appointed memberships of assemblies. In addition, provisions were made for members of parliament in the local government system and development funding through the district assembly' common fund (DACF) (Ministry of Local Government and Rural Development (MLGRD), 2010)

The 1992 constitution which was later promulgated also consolidated these provisions, and is now the current and prevailing decentralization system in Ghana (Kpentey, 2019; Adusei-Asante, 2012; Hoffman, 2010). In order to promote democracy and broad public participation in governance, the Constitution recognized political, administrative, and financial decentralization as a conduit. Article 34 Section 5(d) of the 1992 Constitution provides that the state must make democracy a reality by decentralizing the administrative and financial machinery of government to the regions and districts and by providing all possible opportunities for the people to participate in decision-making at every level in national life and in government (MLGRD, 2010).

Chapter 20 of the Constitution devoted to Decentralization and Local Governance offers general guidelines on institutional arrangements, the duties of various institutions involved in decentralized administration, major players, their roles and

obligations, as well as resources. It outlined a few requirements to fulfill in order to achieve the desired decentralization, including;

- I. The transfer of responsibilities, authority, and resources from the central government to local government;
- II. Efforts to increase local governments' capacity to plan, initiate, coordinate, manage, and carry out policies;
- III. Establish a sound financial foundation with sufficient and reliable income sources;
- IV. As much as possible, give local governments control over persons in the service of local governments
- V. Provide opportunities for people to participate actively in governance to ensure the accountability of local authorities (MLGRD, 2010).

The passage of Act 462 in 1993 established the legal framework for operationalizing these constitutional provisions. Other laws, such as Act 455 (DACF Act), Act, 479(the National Development Planning Commission Act), Act 480 (the National Development Planning Systems Act), the legislative instrument 1589 and the establishing instruments of the different assemblies gradually established the framework within which local authorities would work (MLGRD, 2010). Programs have occasionally been developed by succeeding governments in an effort to advance the decentralization process. These include the following:

1. The development of an issues paper detailing progress, achievements and the way forward in 1999, after a decade of implementation;
2. The passage of the Local Government Service and Institute of Local Government Studies laws (Acts 656 and 647, respectively) in 2003;
3. The formulation of a national decentralization action plan in 2004;

4. The development of the functional organisational assessment tool (FOAT) to facilitate and harmonize performance assessment and the provision of a district development facility (DDF) to coordinate development resources to district assemblies in a way that rewards effective performance;
5. Initiatives to develop policy guidelines for managing decentralization, urban, rural, water and sanitation, local economic development, HIV/AIDs and gender;
6. The establishment of the Local Government Service Secretariat and various operational guidelines for the service;
7. The development of a plan to de-couple local government dimensions from the central civil service (MLGRD, 2010).

Recently, there have been attempts to scrap the current appointment system and allow district residents to elect their own Metropolitan, Municipal and District Chief Executives (MMDCEs). But such moves have stalled over contentions among stakeholders on whether these elections should be held on partisan or non-partisan grounds.

### **2.2.3. Challenges of decentralisation and local government in Ghana**

In spite of the initiatives above, studies have observed that Ghana's decentralization programme since its inception has been saddled with a host of challenges which have over the years shackled its ability to carry out its responsibility as the main institution of local development and participation. There is consequently a general dissatisfaction with decentralized local governance because MMDAs are unable to perform most of their functions effectively and efficiently (Ayee, 2018).



The first problem is the subordination of the local government units to the central government. Notwithstanding the extensive and comprehensive decentralization policies in place, the country still operates under a top-down, highly centralized system that severely handicaps the local government system of the country (Kpentey, 2019). Ayee (2018) for instance observed that the constitutional rules for decentralization vested nearly unrestricted in the president to organise and manage fundamental characteristics of decentralized local governance in Ghana. This includes the power to create and abolish a District Assembly (Article 241 (2) and Section 1(2) of Act 936); the power to appoint and revoke the appointment of the DCE (Article 242 (d) and Section 20(1) of Act 936); the power to appoint 30% of the membership of the DAs (Article 243 (1) of the 1992 Constitution and Section 5(1d) of Act 936); as well as the power to appoint the Administrator of the District Assemblies Common Fund (Article 252 (4) of the 1992 Constitution). Therefore, the DAs exist only at the mercy of the central government. They are responsible, accountable and loyal to it, but not local authorities as stipulated by the constitution (Ayee, 2018; Kpentey, 2019). The effect is that there is no initiative and innovativeness at the local level. Rather, this bureaucratic-centralist nature of the local government system stifles the autonomy of the MMDAs.

More significant is the issue of financial challenges facing the DAs. Most MMDAs in Ghana are financially handicapped and lack the requisite financial muscle to initiate and implement developmental policies and programmes. A number of factors underlie this challenge. First, due to the moribund tax collection systems in Ghana, the DAs are not able to effectively generate the required internal revenue for local development (Gumede et al., 2019; Debrah, 2014; Boschmann, 2009). Secondly, the release of the DACF to the MMDAs mostly experiences perennial delays, and is

frequently in arrears, causing enormous anxiety among the DAs and making local administration difficult (Debrah, 2014; Boschmann, 2009; Jibao, 2009). Moreover, rigid central government fiscal control also represses the ability of MMDAs to mobilize resources from other sources to develop themselves (Debrah, 2014; Boschmann, 2009). Gyaase (2014) and Debrah (2014) also point to the rural setting of some MMDAs in Ghana as a source of enormous financial challenges.

Moreover, the local government units lack the required personnel to augment their human resource capacity for effective local administration (Debrah, 2014; Gyaase, 2014; Ayee, 1992). Due to the rural nature of most districts and the low prestige given to local government in Ghana, it is difficult to attract qualified civil servants to stay in these districts for efficient management (Gyaase, 2014; Ayee, 1992). Moreover, the politicization of the system and nepotism have also relegated even the few people with the requisite skill set and competence to the background, filling the various offices and departments of the local assemblies with people, who in most cases have no qualifications or skill set aside being party faithful (Kpentey, 2019; Adusei-Asante, 2012; Hoffman, 2010). This thwarts the efficiency and effectiveness of the DAs.

The next challenge is the lack of local accountability in the activities of the DAs. Local accountability is hampered by the central government's unwillingness to cede control of its authority and the multiple recentralization 'traps' it has built in the decentralization process (Kpentey, 2019). The enormity of the powers of the central government and the appointment of the Metropolitan, Municipal, and District Chief Executives and 30% of Metropolitan, Municipal, and District Assembly Members have tended to undermine accountability as these officials are more accountable to the President than to MMDAs (Ayee, 2018; Kpentey, 2019; Crawford, 2009).

Studies also show that the MMDAs which were created to be the institutions of local/grassroots participation have failed in this task (Ayee, 2018; Kpentey, 2019; Gyaase, 2014). There is a lack of effective structures and avenues for engaging citizens' participation in decision-making and development planning (Gyaase, 2014). Moreover, the appointment of the DCE and the regional ministers as the executive body of the local government also undermines the principle of political participation, where citizens are allowed to choose their own leaders through voting (Kpentey, 2019).

Another challenge is the politicization of the MMDAs. Intense partisan politics have supplanted the fundamental goals of decentralization and the appointment of local public authorities. The justification for the appointment of 30% of the membership of the DA is that it would allow for persons with expertise in several fields to be appointed to strengthen the capacity of the DAs. Studies have however revealed that in practice, the president appoints the heads of the MMDAs as well as the 30% membership of the DAs based on partisan grounds (Kpentey, 2019; Adusei-Asante, 2012; Hoffman, 2010). Therefore the DCEs and other members of MMDAs are mostly seen to be championing the cause of their affiliated political party and the central government instead of that of the local communities they govern (Kpentey, 2019).

Another challenge is the menace of corruption. Auditor General Reports and other publications over the years have surfaced corruption in many MMDAs in the country ranging from misappropriation of funds, unaccounted spending, awarding of unapproved/ illegal contracts, forging of receipts etc. (Ghana Audit Service, 2021; Maama & Marimuthu, 2020). This issue of corruption mainly stems from the bottom-

up reporting approach resulting in the lack of local accountability and transparency in the local governance system. Devas (2003) observed that both the ordinary citizens and the elected local representatives are rarely in a position to check in detail, the use of resources. Instead, accounting systems are fragile in local governments and open to all manners of resource misuse and dispute.

### **2.3 The New Public Management (NPM)**

Reforming the administrative state has been an on-going process in Africa for the past three decades. Such reforms have traditionally been driven by many factors, including fiscal and economic crises, Structural Adjustment Programmes (SAPs), Democratization, domestic pressures and the influence of international financial institutions and donors. However, the New Public Management approach has had more influence on the design and implementation of recent administrative reforms than any other factor (Bangura & Larbi, 2006).

NPM refers to a set of reforms that aimed at redefining the nature of public sector organisations (Fredriksson & Pallas, 2018). The concept emerged in the 1980s, especially in many western countries with support from international organisations in the light of the many criticisms that characterized the traditional bureaucratic model of public administration (Fredriksson & Pallas, 2018; Khalil & Salihu, 2012). Grounded in rational choice and public choice and containing elements of total quality management (TQM), NPM seeks to offer a more efficient mechanism for delivering public goods and services and for raising governmental performance levels (Kalimullah et al., 2012). It is inspired by a broad management ideology and contemporary institutional economic theory; and some of its main characteristics include managerialism, market orientation, devolution, orientation towards output-

driven policies and structure, and implementation of measurable performance indicators etc. (Fredriksson & Pallas, 2018).

A key tenet of NPM is that the market, not the government, is the best resource allocator, and people are the best arbiters of their own well-being. Since the fear of competition and rivalry between providers will promote efficiency in service provision and choice for the customer, market disciplines are therefore encouraged for the public sector. NPM consequently promotes increased competition in the delivery of public services. This has important implications for both providers and users of public services. On the side of the provider, market pressures will force public service delivery organisations to raise the standard of service. Significantly, this also implies that the citizen is transformed into a consumer with rights in the new public sector marketplace (Kalimullah et al., 2012). Moreover, the argument for incorporating private sector management practices into the public sector is premised on the notion that public service delivery becomes more effective when public organisations run their operations on commercial principles. The idea that the public sector should try to act more like a company, to the extent practicable, is a key theme in public administration (i.e. more like the private sector). Therefore, just like the private sector, public sector organisations should implement reward systems for public servants and include elements like performance-related compensation and more flexible working arrangements (Kalimullah et al., 2012).

NPM also highlights discipline and efficiency in the management of public resources. The model emphasizes explicit standards and measures of performance. The approach recommends setting clear and measurable goals and targets as indicators of success; places greater emphasis on output controls and links resource allocation and

rewards to performance. As a result, the effectiveness of public organisations is determined by their outputs. Organisational processes like the budget cycle should focus on evaluating the costs and benefits of the units' outputs rather than how much resources should be distributed among them (Kalimullah et al., 2012).

In furtherance, the model stresses the need to decentralize government business and bring administration close to the people. NPM emphasizes the importance of maximizing the involvement of the largest array of individuals and institutions in the decision-making process. In this way, NPM is said to be anti-hierarchical and anti-bureaucratic. The idea is that government should be 'community-owned' and that its purpose is to enable individuals and groups to exercise self-governance. NPM, therefore, sees citizens as active actors in governance, which is in contrast to the old public administration system, which saw citizens as passive actors who are merely recipients of public services and do not have to actively participate in the process of deciding how those services would look (Kalimullah et al., 2012; Navarra & Cornford, 2005).

NPM also promotes the creation of institutions and systems that would strengthen mechanisms for accountability and allow for participation by the general public and other non-governmental organisations. Accountability holds public officials more responsible for their actions based on how they affect societal welfare and holds them to the same standards for performance and quality as employees in the private sector (Navarra & Cornford, 2005). NPM however acknowledges that accountability requires explicit responsibility assignment rather than power distribution. The model, therefore, places a strong emphasis on the professional, hands-on management of

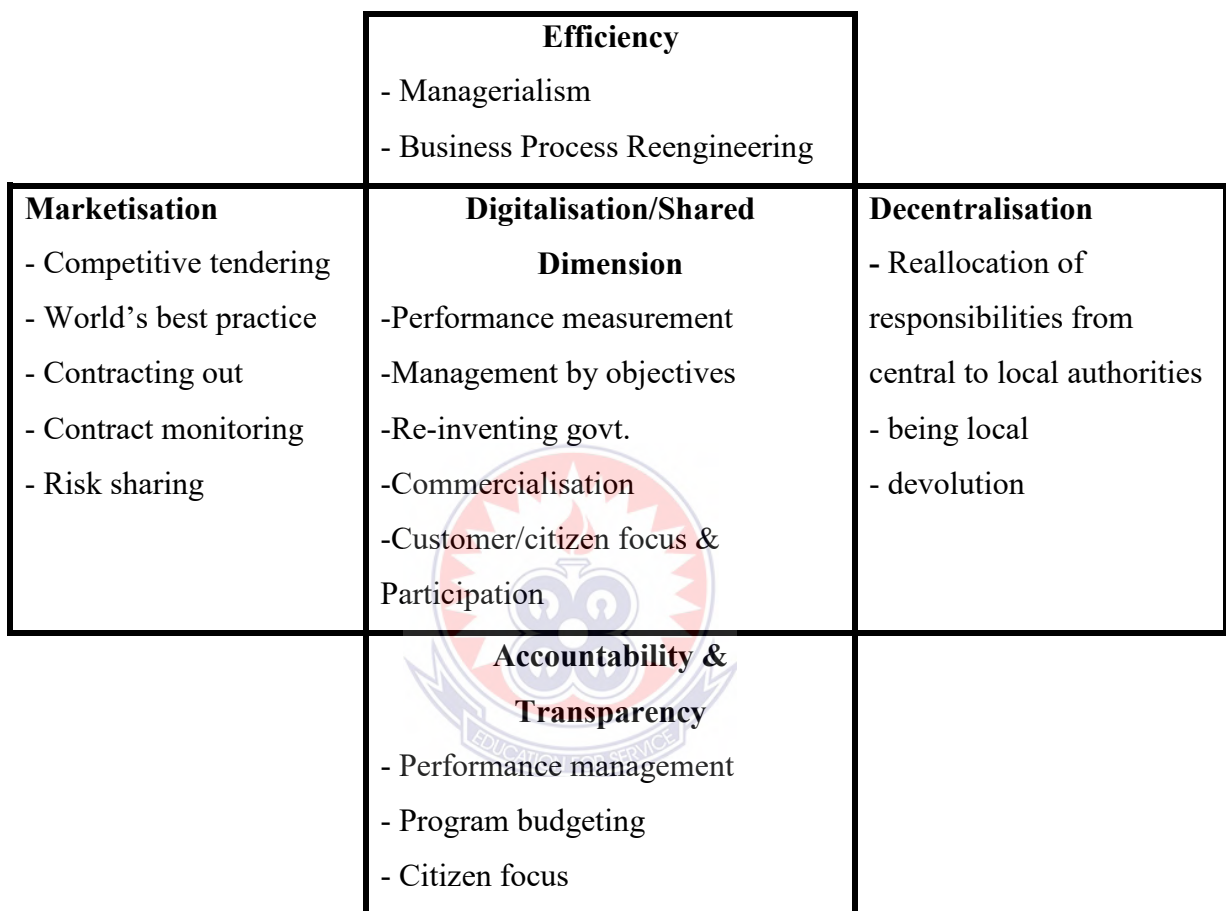
public organisations, with visible managers at the top who are empowered to make management decisions (Kalimullah et al., 2012).

In this sense, in order to enable public organisations to overcome criticism regarding inefficiency, rising costs, and a lack of trust in the public sector, NPM has thus been developed as a blueprint for organisational restructuring. The overall goal is to ‘reinvent’ and create public organisations that are more effective, dynamic, accountable and responsive, as well as capable of delivering quality services.

### **2.3.1 New Public Management and digitalisation reform**

The ideas underlying NPM have undoubtedly influenced many reform programmes across the globe (Ofoma, 2022; Aritonang, 2017; Sandor, 2012; Navarra & Cornford, 2005). Studies the world over, recognize that all the major ideas underpinning NPM—efficiency, marketisation, accountability and decentralization—can best be realised by leveraging the benefits ICTs present in this digital age (Ofoma, 2022; Aritonang, 2017; Sandor, 2012; Navarra & Cornford, 2005; Heeks, 1999; Osborne & Gaebler, 1992). Heeks (1999) argues that the public sector crisis can be handled only in consideration of radical reforms. He further claims that the implementation of such reforms critically requires a more overt role for information and larger use of ICT. Again, in their study ‘Reinventing Government,’ Osborne & Gaebler (1992), gave anecdotal evidence from the USA announcing the advantages of proposed reforms for the innovation of public governance when linked with the use of ICT. According to Aritonang (2017), the installation of an e-government system was initially just a choice or an alternative to strengthening the capabilities of public institutions. Therefore, all public institutions had to do was improve and repair the public service quality in as many ways as feasible. However, digitalisation has evolved into a need

that national and municipal governments must adhere to. Digitalisation has therefore become a crucial component of the whole bureaucratic reform agenda because of the general acceptance of ICTs as a key strategy to transform public administrations from conventional into more advanced ones.



**Figure 2: The four poles of NPM and the place of digitalisation in bureaucratic reforms**

**Source: Adapted from Navarra and Cornford (2005) with modifications.**



## **2.4 A Review of Ghana's ICT in Government Administration**

Since its first internet connectivity in 1989, Ghana has made significant strides in ICTs. Successive governments over the past three decades have made several attempts to develop the country's ICT infrastructure in order to maintain its status as one of the leaders in Sub-Sahara Africa (Mathapoly-Codjoe, 2015). With the aid of Pipex International, the Network Computer Systems Limited (NCS) in 1993 registered 'GH.COM' as the first commercial internet service in Ghana. This was followed by Africa Online and Internet Ghana as the other internet service providers. By the end of 1995, Ghana had not only become one of the few African countries particularly in sub-Saharan Africa but first in West Africa to have full internet connectivity (Quaynor et al., 1997). In December 1996 the National Communications Authority (NCA), the statutory body mandated to license and to regulate electronic communications activities and services in the country was established (Demuyakor, 2021; Mathapoly-Codjoe, 2015). Achampong (2012) argues that the standing of Ghana as one of the liberal ICT markets regarding ICT in sub-Saharan Africa could be attributed to the pro-competition policies put in place by the NCA.

In 2000, the Ministry of Communications and Technology was established to lead Ghana's e-government revolution through the creation of a strong telecommunications infrastructure and the provision of e-government services. In the same year, it established the Ghana Community Network (GCNet) as a part of a larger strategy to position Ghana as a transit hub for landlocked West African countries. After digitalizing port operations, it eventually expanded to other government services including the Computerized School Selection and Placement System (CSSPS) (Simpson, 2020).

In 2003, the ICT for Accelerated Development (ICT4AD) policy was also introduced as part of the government's vision to transform Ghana into an information-rich knowledge-based society and economy through the development, deployment and exploitation of ICTs within the economy and society (Republic of Ghana, 2003). The overriding objective of the policy was to engineer an ICT-led socioeconomic development process with the potential to transform Ghana into a middle-income, information-rich, knowledge-based and technology-driven economy and society (World Bank Group, 2019a). A key motivation for adopting the ICT4AD document was the credence that ICT can provide the platform that would enable the global South the leapfrogging opportunity to skip aspects of the development curve (Kubuga, et al., 2021). Published in 2003, the original document was intended to have a lifespan of 20 years, inclusive of the year 2022. It was envisaged at the time of authorship that there would have been sufficient shifts in the environment to warrant a review or update of the plans contained therein during the policy document's lifetime (Kubuga, et al., 2021). A key strategy to achieve the policy document's objectives was to expand Ghana's ICT infrastructure and services (Republic of Ghana, 2003). Since the policy's inception, there has been some significant growth in access to technology tools and platforms. But there still exist challenges such as cost and even an understanding of technology's potential to provide the citizenry services required (Kubuga, et al., 2021).

In 2005, The Ghana e-government strategy was introduced, and in 2006, all e-government efforts were merged under the e-Ghana project, which focused on three components: creating an overall enabling environment; attracting IT-enabled services, such as Business Process Outsourcing; promoting the development of local ICT businesses; and achieving greater efficiency, transparency, and accountability in

selected government ministries, departments, and agencies. To expedite the execution of e-government initiatives, the National Information Technology Agency was established by the National Information Technology Agency Act, 2008, (Act 771) to serve as the national e-government implementation and coordinating agency (Dzansi et al., 2018). The agency was founded to provide a conducive setting for the effective deployment and use of ICT by all sectors, through the execution of sound policies and regulatory framework. Also, in addition to ensuring the sustainable growth of ICT through research and development planning and technology acquisition strategies to facilitate Ghana's prospect of becoming a technology-driven, knowledge- and values-based economy, as espoused in the e-Ghana project, NITA also has the responsibility of identifying, promoting and developing cutting-edge technologies, standards, practices, and guidelines among government agencies and local governments (National Information Technology Agency Act, 2008).

Aside from these, there have been major ICT policy legislations related to digital development in Ghana. In 2008 alone, there was the introduction of the National Communications (Act 769, Revision of the existing National Communications Act, 1996); the Electronic Communications Act; and the Electronic Transactions Act. There was also the introduction of the Electronic Communications Amendment Act 2009. In 2011 there was the introduction of the Communications Regulations; Mobile Number Portability Regulations and the Subscriber Identity Module (SIM) Registration Regulations. Others include the Electronic Transactions Amendment Act 2012; Data Protection Act 2012; National Broadband policy 2012; National Cyber Security Policy & Strategy 2015 and the 2016 Electronic Communications Regulations. It was anticipated that the adoption and implementation of e-government would enhance the quality of public service in Ghana.

Currently, as part of Ghana Beyond Aid, the government aims to develop a new policy in line with digital opportunities to develop a digital strategy and an implementation plan to establish Ghana as the leader in ICT innovation in Sub-Saharan Africa by 2023. It envisages (i) fostering growth in the local IT industry beyond the boundaries of Ghana, (ii) bridging the urban-rural divide by expanding digital services to rural and underserved communities, (iii) increasing efficiency, improving citizens' experience and engagement with government by reducing the mean time to deliver government services to citizens while increasing government revenue generation, (iv) increase transparency in government functions (World Bank Group, 2019a).

## **2.5 The Context of Digitalisation in Ghana**

Ghana has made remarkable strides in ICT penetration and adoption over the past two decades. Taken together, the policies implemented by successive governments have rapidly evolved a digital technology ecosystem in Ghana that can adequately support the digitalisation of basic services (Kpessa-Whyte & Dzisah, 2022). The 2018 UN E-Government Index survey, ranked Ghana as the only African country that transitioned from the middle to high E-Government Development Index (EGDI) level. The Government of Ghana is also making significant efforts and investments that are expected to position the country as a regional hub for digital services (World Bank Group, 2019a). The current government particularly recognizes the opportunity that digital transformation has for stimulating jobs, improving productivity, and accelerating inclusive growth, and has pledged to put digital economic transformation at the center of the country's 'Ghana Beyond Aid' agenda (World Bank Group, 2019a). The government aims—as part of Ghana Beyond Aid—to develop a digital strategy and an implementation plan to establish Ghana as the leader in ICT

innovation in Sub-Saharan Africa by 2023. It aims to (i) foster the growth of the local IT industry beyond the boundaries of Ghana, (ii) bridge the urban-rural divide by expanding digital services to rural and underserved communities, and (iii) leverage ICT to (a) increase efficiency, improve citizen experience and engagement with government by reducing the mean time to deliver government services to citizens; (b) increase transparency in government functions; and (c) increase government revenue generation (World Bank Group, 2019a). The World Bank (2019) has observed that there are about 4,153 ICT establishments in Ghana, with Greater Accra Region and Ashanti Region alone hosting approximately 73% of such entities and making significant contributions to job creation and employment. Accra, the national capital of the country, hosts the ‘biggest Tier-3 600-Rackspace Data Center in West Africa, with a 45-Rackspace back-up situated at the Kwame Nkrumah University of Science and Technology, Kumasi. This has the capacity for the storage of large volumes of documents, videos, audio, biometrics, web hosting and cyber security (Kpessa-Whyte & Dzisah, 2022).

### **2.5.1 Ghana’s digital governance framework**

The digital governance framework developed by the United Nations Development Programme (UNDP) and United Nations serves as the foundation for Ghana's digital governance policy. The framework's goal is to establish accountability in order to enable individuals to effectively participate in the administration of their countries. Together, six principles characterise Ghana’s digital governance. The three essential elements are E-service, E- administration, and e-participation. The other three cross-cutting elements—access to ICT and connectivity, access to information, and regulation of the political environment—were also classified by the UNDP (Demuyakor, 2021; Solomon & Klyton, 2020; Ashmarina et al. 2020; UNDP, 2018)

### **2.5.2 Regulatory institutions**

The foundation of Ghana's digitalisation program is a series of institutional entities with distinct roles that work together to provide effective services to citizens and businesses. Some of these institutions are discussed in this section.

The Ghana Domain Name Registry (GNDR) was established in 1996. It is a statutory non-profit organisation under to the Ministry of Communications and Digitalization and is mandated by law to manage and regulate the .gh namespace. However, the organisation does not directly handle domain name registration. It only performs regulatory roles. Registrations are done through GNDR accredited Registrars certified by same to facilitate the registration, transfer, renewal, and modification of registration data for customers that apply for .gh domain names (Ministry of Communications and Digitalisation, 2022).

The National Information Technology Agency (NITA) was established in 2008 by the National Information Technology Agency Act, 2008, (Act 771) to serve as the ITC implementation wing of the government and to regulate Information Communication Technology and provide related purposes. Through the implementation of sound policies and regulatory framework, the agency is responsible for creating an environment that is conducive to the effective deployment and use of ICT by all sectors. NITA is responsible for identifying, promoting, and developing cutting-edge technologies, standards, practices, and guidelines among governmental organisations and local governments. This is in addition to ensuring the sustainable growth of ICT through research & development planning and technology acquisition strategies to support Ghana's goal of becoming a technology-driven, knowledge and values-based economy, as espoused in the e-Ghana project (National Information Technology

Agency Act, 2008). In relation to digitalisation programme, NITA is responsible for the Identification, promotion, and development of technology-based innovations, as well as the provision of guidelines to mold ICT use and practices by government ministries, departments, and agencies. The Agency has built a Tier 3 data center to house all government applications and the e-Government Infrastructure Platform Project to connect all MDAs and MMDAs in Ghana since its inception. It has also built a Tier 3 data center with the ability to offer hosting services to institutions in the private sector. NITA is now pursuing a public key infrastructure (PKI) and attempting to create a compliance strategy for all governmental institutions regarding the licensing and use of third-party software. Since its establishment, NITA has established a number of digital infrastructure platforms and offered connectivity to institutions and government organisations across the nation (Demuyakor, 2021; National Information Technology Agency Act, 2008).

The National Communications Authority (NCA), an organisation mandated by law to license and oversee electronic communications services and activities in the nation, was created in December 1996. The NCA is designed to protect both consumers and service providers of telecommunications from abuse and exploitation, in addition to ensuring a fair competitive environment for industry participants. It has the authority to impose sanctions, particularly on telecommunications service providers who break the law or act anti-competitively in the broadcasting, spectrum use, and telecommunications operations. The NCA's main responsibility is to level the playing field for the usage of telecommunications services, with a focus on regulating communications across cable, wire, television, radio, satellite, and other related technologies in the nation. Although it has multiple responsibilities, the main ones are open regulation, issuing operational licenses, mediating interconnection disputes,



regulating tariffs, and protecting consumers (Demuyakor, 2021; Mathapoly-Codjoe, 2015; Achampong, 2012).

The National Cyber Security Authority (CSA) was established by the Cyber Security Act, 2020 (Act 1038) to regulate cyber security operations in Ghana, to advance the development of cyber security in the country and to handle associated issues (Cyber Security Authority (SCA), 2022). As a government agency under the Ministry of Communications and Digitalisation, the CSA is tasked with regulating cyber security activities in the country. It is also responsible for preventing, managing, and responding to cyber security threats and incidents, regulating owners of critical information infrastructure with regard to cyber security activities, and encouraging the development of cyber security in the country to improve national security. It also establishes a platform for cross-sector interactions on cyber security issues to facilitate efficient coordination and collaboration between important public institutions and the commercial sector; raise awareness of issues related to cyber security; and Work together with foreign organisations to advance the nation's cyber security (CSA, 2022). A growing awareness of numerous cyber threats that sought to thwart the digitalisation processes necessitated the CSA (Demuyakor, 2021). It officially started operations on 1st October 2021. Before then, it began as the National Cyber Security Secretariat (NCSS) with the appointment of the National Cyber security Advisor in 2017. It later transitioned into the National Cyber Security Centre (NCSC) in 2018 as an agency under the then Ministry of Communications (SCA, 2022).



### 2.5.3 Notable digitalised services in Ghana

- i. **The Biometric National Identity Card (The Ghana Card):** This is a distinctive identity card for both Ghanaians and non-Ghanaians and the first e-ID of its kind in West Africa (Demuyakor, 2020). The card's architecture supports e-visas and e-passports and is globally recognised as proof of Ghanaian citizenship. The government has hinted that the card may be connected to vital data including the voter registry, birth and death records, and paper-based biometric passports (Kpessa-Whyte & Dzisah, 2022).
- ii. **The National Digital Property Addressing System:** Managed by the 'Asaaase' GPS App, the system was locally developed to provide citizens with exclusive digital address systems that are well linked to postcodes (Demuyakor, 2020).
- iii. **Paperless port operation system:** A management information system that unifies the internal procedures for conducting business at Ghanaian ports into a single system to address delays, middlemen, and leakage in the Tema and Takoradi ports' operations (Kpessa-Whyte & Dzisah, 2022).
- iv. **Online passport application system:** An integrated online platform for the application and payment for passports and other travel documents services. The service is not entirely digitalised and processes still require customer interaction with the passport office to be completed.
- v. **Ghana Electronic Procurement System:** (Ghana Electronic Procurement System) was created as a web-based, collaborative system to streamline public procurement procedures in Ghana. The system intends to improve a number of procedures, including the hiring of consultants and the sale of assets. It

provides a safe, engaging, and dynamic environment for purchasing any category, regardless of complexity or value.

- vi. **E-immigration:** The E-Immigration project forms part of the overall E-Ghana project. It consists of Secured Border Management System (SBMS), Visa Management System, and online applications for visas and permits. Despite being ongoing, the project is being held up due to declining donor funding. Once completed, the SBMS module will be implemented as the new passenger processing system. The electronic gate (e-gate)—a system that would enable the Service to improve the efficiency of passenger processing—Is one of its components. The e-gate system is accessible to passengers who will be enrolled on it.
- vii. **E-agriculture:** Using USSD codes, farmers can register online and receive access codes to fertilisers. To stop fertilizer from being smuggled out of the nation, registered farmers could use the USSD codes to pick up the bags of fertilizer that were allotted to them at outlets within their communities.
- viii. **Mobile money interoperability system:** The mobile money interoperability system, enables users to send and receive money directly and easily between mobile devices over wireless networks.
- ix. **Ghana's Drone Service:** This program makes on-demand emergency delivery of vaccines, blood, and other life-saving drugs to hospitals across the country (Demuyakor, 2020).
- x. **Motor Insurance (Verification):** Using the Motor Insurance Database (MID) as the source for authentication, policyholders and law enforcement organisations like the Police Service can determine the validity of any motor

insurance by using a USSD code. As a result, phony motor insurance documents have largely been eliminated.

- xi. **E-Taxes:** This is an integrated online platform that offers a range of tax services, including tax filing and payment (Kpessa-Whyte & Dzisah, 2022; Demuyakor, 2020; African Development Bank, 2019; Ministry Communications of Ghana, 2019).

These projects are at various stages of implementation, and the aim is to have a well-integrated government database (Ministry Communication Ghana, 2019). Again, the majority of these initiatives are not totally (100%) digitalised because some services still require human interactions (Kpessa-Whyte & Dzisah, 2022). Together, they highlight the advancements Ghana's government has made in the direction of digitalisation. However, studies suggest that even though some projects are still ongoing, sustainability issues may arise if donor funds are no longer accessible (Kpessa-Whyte & Dzisah, 2022).

#### **2.5.4 Socio-economic impact of digitalisation in Ghana**

Studies show that after a few years of implementation, these initiatives have already begun to pay off in some selected MDAs by enhancing the efficiency, accountability, and transparency of administrative and service delivery processes. According to a 2019 report by the World Bank Group's International Finance Corporation on 'Digital skills in Sub-Saharan Africa,' Ghana's economy has benefited greatly from the digitalisation processes, which have not only raised citizens' quality of life but also significantly reduced corruption in the country. The National Communication Authority also stated in the Ghana Digital Agenda Report that digitalisation has boosted public officials' skills and knowledge as well (National Communication Authority, Ghana's Digital Agenda Report, 2018). Agbevede and Tweneboah-Kodua

also cite the online passport application system and timely issuance of biometric driver's licenses and birth certificates as some gains chalked by the reform in its brief period of implementation (Agbevede & Tweneboah-Kodua, 2020). Moreover, the drone technology intervention for medical supplies has also improved the management of emergency cases in in the health sector (Demuyakor, 2020). With the utilization of drones, blood and pharmaceutical deliveries can be completed in 45 minutes or less (Demuyakor, 2021, 2020).

Studies have also shown that digitalisation has greatly increased Ghana's revenue mobilization. The Oxford Business Group (2021) reported that in 2018, import revenue increased by 3.9% as a result of the digitalisation of permits and fee payments. In its World Economic Outlook, the IMF also predicted a growth rate of 8.8% in 2019. As a result, Ghana was anticipated to have one of the world's fastest expanding economies. The report also noted that a number of private businesses now have opportunities to work with the government thanks to the efforts that have been put in place (Demuyakor, 2020). Again, at the launch of the new platform—Ghana.Gov—the Vice-President, Dr. Bawumia, hinted that owing to the reform, the Ministry of Tourism's revenue collection increased by four-folds.

In terms of social accountability, digitalisation has greatly enhanced Ghanaians' ability to participate in and access information online in terms of social accountability. Through the use of online platforms, citizens' access to information and other public services has been considerably improved (Ashmarina et al., 2020; Solomon & Klyton, 2020; World Bank Group, 2019). As a result, Ghana's decision-making and accountability have improved. Policies, budgets, and legal papers are now freely and easily accessible thanks to digitalisation (Demuyakor, 2020). Additionally,

open data technology has been used in a number of areas, including social welfare, health, and education. Through the creation of the Access to Information Act, the public now has a right to access government information. Online access is also available for notifications of public procurements and tenders (UNDP, 2018).

### **2.5.6 Challenges of digitalisation in Ghana**

Recent studies on digitalisation initiatives in Ghana have highlighted myriad challenges thwarting the government's digitalisation efforts. This section discusses some of these challenges.

#### **I. Weak public institution**

A successful public sector reform relies on strong, effective, and efficient public institutions that have the necessary capacity and flexibility to steer the course and translate reform objectives into tangible benefits for citizens. Furthermore, the ability of the institutional structures created as a result of the reforms to accommodate unforeseen or adverse shocks is crucial for the sustainability of the reforms (Aksoy & Hoekman, 2013). Unfortunately, studies often highlight weak and ineffective public institutions in the country (World Bank, 2017; Jide, 2014; Aksoy & Hoekman, 2013; Karyeija, 2012; GoG, 2010a). NITA, the government's ICT policy implementation arm and a major force behind Ghana's public sector's digital transformation, was noted by the World Bank Group (2019a) as lacking the institutional capacity and financial resources necessary to implement the ambitious digital government platforms that the government envisions. MDAs consequently experience a persistent lack of connectivity, as well as unreliable e-mail, webpages, and other fundamental services (World Bank Group, 2019a: 19). In a separate report, the organisation warned that despite the prospects NPSRS holds, Ghana's weak institutions pose

significant challenges to its potentials for economic transformation. The institution stated that ‘despite the rapid economic growth in recent times, Ghana’s institutions are still weak’ (World Bank, 2017:3).

## **II. Infrastructure challenges**

Farida (2020) observed that the biggest barrier to digital government projects is a lack of ICT infrastructure. This is because a solid and robust ICT infrastructure is a prerequisite for the successful implementation of all digitalisation reforms (Farida, 2020). However, studies show that Ghana lacks the necessary ICT infrastructure to support the government’s digitalisation efforts. Mensah (2019) hinted that one of the most important aspects of digital governance in Ghana is that not all citizens have access to the internet and computers, despite the fact that digital governance involves ensuring that every town or village has access to accessible digital network information (ElMassah & Mohieldin, 2020). Despite the sustained investment in ICT infrastructure over the years, internet penetration—a prerequisite for digitalisation—still lags behind as significant areas of the country suffer from erratic service or service unavailability (Kpessa-Whyte & Dzisah; 2022; World Bank Group, 2019a; Mensah, 2019; Dagba et al., 2018; Osei-Kojo, 2016). Consequently, the digitalisation of basic services suffers an inclusion deficit as poor internet connectivity impedes people’s ability to access digitalised services (Kpessa-Whyte & Dzisah, 2022). Other studies have also noted that the majority of Ghana's infrastructure is concentrated in the country's urban and commercial centers, leaving significant portions of the rural population without adequate coverage (World Bank Group, 2019a). Due to poor internet infrastructure and connectivity in rural areas, there is a significant divide between internet users and nonusers (Dagba et al., 2018). This hinders the development of electronic government programs since the government and its citizens

will be unable to execute transactional activities in the lack of back-end infrastructure, delaying the adoption of additional phases of electronic governance (Adam, 2020; Al-Mushayt, 2019).

### **III. Financial challenges**

The initial cost of implementing digitalisation projects is one of the obstacles. Despite the prospects, digitalisation projects are normally accompanied by implementation expenses such as the establishment of requisite digital infrastructure, software and hardware, procurement, training, data storage, and upkeep of the digital platforms among others, all of which come with huge costs (Albukhitan, 2020; Kern et al., 2020). Aside from the initial cost associated with implementation, maintenance and sustenance of digitalisation projects require a commitment of huge financial resources (Dagba et al., 2018). Unfortunately, lack of funding mostly reflected in low budget allocation characterize the implementation of most digitalisation projects, especially in most developing countries, where limited financial resources force governments to ration resources, and give priorities to more pressing needs facing their economies. In Ghana, studies have established that NITA—the ICT policy implementation arm of the government—lacks the requisite financial muscle for effective implementation of the government’s digitalisation programme (World Bank Group, 2019a). Similarly, Kpessa-Whyte and Dzisah (2022) found that the majority of basic services that are being digitalised began with funding from the World Bank and that many of them stagnated once the funding ceased. According to Mpinganjira (2013), the lack of funding for the majority of digitalisation programs stems from the fact that such initiatives frequently have negative returns on investment in the short term because they take a long time to yield significant benefits. This makes it difficult to convince political leaders to invest in digitalisation programmes (Mpinganjira, 2013).



#### **IV. Low patronage/ low adoption rate**

Studies on digitalisation in Ghana generally point to low adoption rates on the part of citizens as a core challenge thwarting the government's digitalisation drive. The low adoption rate generally stems from a number of factors. Dagba et al. (2018) for instance contend that the unwillingness on the part of Ghanaians to adopt e-government services stems from the initial frustrations that characterize most e-Government initiatives in the country. Again, there is low trust among Ghanaians in e-services offered by the government and the majority of the people are not even aware of the existence of e-government services (World Bank Group, 2019a). The lack of awareness on the part of citizens also stems from the fact that social accountability mechanisms are mostly not imbibed in the design and implementation of digitalisation projects. For instance, the UNDP (2018) observed that a major challenge in Ghana is the lack of citizen participation in the process of implementing digital governance projects. Due to a lack of proper public awareness, the majority of people are unaware of the significance of the services offered through the digital governance platform. There is a lack of a clear framework that could foster extensive participation in decision-making processes (UNDP, 2018). Additionally, apprehensions about governments' potential exploitation of vast new data quantities and their susceptibility to cyberattacks deter individuals from embracing such programs (Demuyakor, 2021; Dagba et al., 2018; Mpinganjira, 2013). In his study on citizens' perceptions of the benefits and challenges to the utilization of digital governance services in Ghana, Demuyakor (2021) identified the lack of a legal framework to protect users of digital governance services as a key hindrance to digital governance initiatives in Ghana. In addition, Ghanaians' ignorance of digital services is also a result of the overall lack of attention given by governments to raise public



awareness of them (Dagba et al., 2018). Moreover, issues of the digital divide, manifesting in inequitable access to assistive technologies such as personal computers, and other internet-related technologies pose significant challenges to people's ability to access digitalised programmes and platforms. In their analysis of basic digitalised services in Ghana Kpessa-Whyte and Dzisah (2022) and Demuyakor (2021) highlighted the high cost of internet devices and data as major impediments to people's ability to access and use digitalised basic services. Additionally, the dynamics between rural and urban areas and educational backgrounds have a significant impact on how people can access and use basic digital services; and this shapes both inherent and existing disparities. Additionally, because more women than men experience digital exclusion, there are gender differences in the access to and usage of digitalised services (Kpessa-Whyte & Dzisah, 2022).

## **V. Human resource challenges**

Successful implementation of digitalisation projects transcends basic knowledge in ICTs or people's ability to use basic computers or tablets. It demands digitally skilled professionals such as software developers, coders, cyber security professionals and project developers to man such projects. Unfortunately, just like most developing countries, such skilled human capital is limited in Ghana (Demuyakor, 2021; World Bank Group, 2019a; Dagba et al., 2018). The World Bank Group (2019a) noted that only a few Ghanaians have the requisite digital skills and experience beyond the basic use of a computer or tablet. This shortage of skilled ICT personnel, therefore, makes it difficult to effectively implement digitalisation projects or ensure their sustainability.

## **VI. Organisational obstacles and resistance from civil servants**

Another issue is the reluctance of civil servants to change how they carry out their duties, which frequently accompanies many digitalisation initiatives. Public officials' and residents' general indifference to change, widespread apathy, and resistance to change have always been important contributing elements to Ghana's previous reform failures (Government of Ghana, 2017). Similarly, UNESCO (2007) noted that it is always challenging to motivate public officials to adopt innovative practices that would reduce bureaucracy and red tape (UNESCO, 2007). Public servants' resistance to reforms can be explained from a multiplicity of angles: First, because of uncertainties surrounding most digitalisation reforms and fear of being rendered irrelevant in light of certain skills required to be effective under such reforms, some public servants devise all means possible to sabotage the system. Additionally, this pessimistic attitude might be the product of the difficulties associated with adopting such new systems. Khoa (2020) asserts that when digital technology has a difficult user interface, it may negatively affect users' attitudes toward adopting such technology, leading to the failure of digital transformation initiatives.

### **2.6 Prospects of Digitalisation in Improving Public Service Delivery**

Public service delivery is underpinned by the notion that there is a potentially significant market failure (broadly interpreted to include equity and efficiency) in the provision of services to society. This justifies governments' involvement in the production, finance, or regulation of public services (Aritonang, 2017). For most governments the world over, digitalisation has become a mechanism to reform, reinvent and modernize the quality of service delivery, because digitalisation offers convenient and reliable services with lower compliance costs as well as higher quality and value (Chen et al., 2009). There is general acceptability that digitalisation has the

potency to increase public access to public services; foster accountability between providers and users of public services; provide channels for consumers to be represented and participate in the design and provision of public services; align the operation and organisation of public service delivery to users' interest and adapt services to meet new needs of consumers; provide channels of choice to be freely made by users; and provide complaint channels for users to give inputs and seek redress (Amatya, 2021; Ingrams et al., 2020; Aritonang, 2017; Chen et al., 2009).

Chen et al. (2009) cogently summarise the potency of digitalisation to transform and reshape public service delivery. They contend that digital governance has the potency to remove boundaries by breaking down the agency and jurisdictional barriers to allow more integrated whole-of-government services across the tiers of government. With electronic government, the provision of seamless access will be taken much further and will make the government much more approachable. Another benefit is its ability to integrate ministries, departments and agencies in charge of service delivery. Cross-agency initiatives may therefore lead to high-value services which provide efficiency benefits for citizens and the government. Again electronic government increases people's access to government services. This is because accessing governments can be problematic especially for people in regional and remote locations since it often requires visits to government offices. Electronic government breaks this barrier and offers the potential to significantly increase access to information and services (Chen et al., 2009). Bhatnagar (2014) for instance, accounts for how ICTs were used to improve people's access to services and reduce the cost of accessing such services in India. The study noted that ICTs enabled the electronic delivery of government services such as caste and income certificates to rural populations, which in turn provided entitlements to the poor for subsidized food,

fertilizer, and health services. Again, copies of land titles were e-delivered to facilitate access to farm loans and reduce the cost of land transactions. Moreover, digitalisation of public services also ensures greater citizen participation in public service delivery by making it easier for people who wish to contribute. This ensures that services are tailored to respond to the needs of citizens (Chen et al., 2009).

Studies also note that in the majority of emerging nations, governments that are the primary employers are impeded in their abilities to initiate development programmes due to enormous payroll expenses (Adenle, 2020). Digitalisation, therefore, reduces the cost of operating public institutions by lowering staff size (Amatya, 2021). Ingrams et al. (2020) also contend that e-government increases internal efficiency in the delivery of local services while decreasing the administrative expenses associated with public services, particularly the cost of paper and other stationery since e-government assures little paper use.

E-government usage by local governments has been validated as an effective technique for boosting the delivery of local services (Li & Shang, 2020). Scholars anticipate that e-government adequately addresses the problem of red tape and significantly contributes to the preservation of a smooth public service delivery system (Porogo & Kalusopa, 2021). There is recognition of the fact that e-government lowers duplicate procedures and paperwork experienced in a manual setup. In Fiji, e-government has been the 'key' to enhanced public service delivery, according to Lawan et al. (2020). Mishra & Geleta (2019) also identifies e-government as a crucial instrument without which India will not achieve high service delivery and development efficiency. In his evaluation of the South African Revenue Services Kerr (2020) determined that e-government has led to a considerable improvement in the

delivery of government services. She demonstrated that e-government lowers clerical mistakes in the workplace.

Again, the use of digital technologies has the potential to increase revenue mobilization for public institutions by improving the efficiency of the delivery of public services. This is because e-government has the tendency to boost the efficiency of government agencies and enterprises. Increased productivity in the delivery of public services, therefore, enables organisations to satisfy the requirements and service expectations of people more effectively, hence increasing revenues (Lee-Geiller & Lee, 2019).

Aritonang, (2017) however contends that despite the prospects, digitalisation does not automatically translate into public service quality. A good digitalised service depends on a multiplicity of factors, including political will, public service orientation, availability of appropriate infrastructure and local context (economy, democracy, education, Internet usage) among others. Knowledge of these factors will enable government agencies to develop online services to meet the needs of their citizens (Aritonang, 2017).

## **2.7 Prospects of Digitalisation in Improving Social Accountability Mechanisms**

Social accountability has become the driving force behind every new public management implemented by governments across the globe. It is the means by which public administrators manage the many expectations of the public (Boyd & Nowell, 2020). This is particularly crucial in local administration since one of the ultimate goals of decentralization is participation at the grassroots level (Udayanganie, 2020). Residents' participation in local decision-making guarantees that governments address the genuine concerns of citizens and minimizes the likelihood that governments

would spend money on unnecessary programs and initiatives. The usage of ICTs increases the potential for grassroots individuals to participate in government (Anne-Meike & Schwittay, 2019). An advantage of e-government is its potential to promote public space openness and accountability. Electronic government enforces an open, transparent, and observable system and utilizes trustworthy and secured channels for resource allocation and distribution, allowing other watchdog bodies to monitor performance and resource management (Anne-Meike & Schwittay, 2019; Bhatnagar, 2014). Maravilla and Grayman (2020) argue that if the public has access to key information they will be better able to evaluate the actions and inactions of public administrators and exercise proper oversight over their leaders. Bhatnagar (2014) for instance noted how ICTs have been used to empower some local communities in South East Asia to participate in local governance and hold public officials accountable. The study noted that in order for communities to actively get involved in demanding the allocation of development spending that best meets their requirements, ICTS were utilized to exchange information on development expenditure. Similarly, information on the performance of government agencies shared with citizens also promoted community audit of project execution. The Citizen Report Card is another example of such digitalised initiatives across many South Asian countries in which citizens are engaged in monitoring the performance of local bodies with the help of NGOs (Bhatnagar, 2014).

Still, on accountability, digitalisation has been hailed as an effective anti-corruption tool. This is because the openness and transparency e-government offers are crucial anti-corruption measures. It facilitates the visibility of accountability via a transparent process and guarantees that government structures, procedures, and transactions are transparent to citizens and all stakeholders, thereby eliminating distrust, bureaucracy,

and corruption (Ashaye & Irani, 2019). Adam's (2020) study on the online procedures enhancement for civil application in the Seoul Metropolitan Area in Korea for instance, revealed a favourable correlation between e-government and corruption reduction.

## **2.8 Importance of Local Context to Reform Outcomes**

The importance of context in determining policy outcomes is not a new phenomenon to most public policy analysts. Traditionally, however, emphasis has been placed on 'macro contexts.' The scepticism has been on the efficacy of Western 'solutions' to African problems. Such sceptics emphasize the need to consider the local context when transplanting Western ideas and theories into Africa. Policy advice has emphasised the need to tap selectively best practices and adapt them to suit the African context. However, increasingly, evidence is beginning to point to the importance of micro (intra-national) context as well, in determining reform outcomes (Yusuf & Hulme, 2019; Hertz, 2016; Wetterberg, 2016b; Haruna, 2003).

Yusuf and Hulme's (2019) study of Nigeria's Conditional Grant Scheme to Local Government Areas (CGS to LGAs) programme highlighted the importance of local context in determining reform outcomes. The study noted that the programme partly achieved its objectives in local government areas such as Guri, but failed in other LGAs such as Mashi. According to the study, contrasting elite commitment to the programme in both contexts explained the reason for the contrasting outcomes. In terms of indicators of commitment, Guri LGA demonstrated a much stronger performance than Mashi LGA.

For instance, in terms of locus of initiative, even though political and bureaucratic elites responded positively to scheme implementation and took initiatives to adapt to



its implementation guidelines in both Guri and Mashi LGAs, political and bureaucratic leaders in Guri made context-relevant changes to local service delivery processes and provided satisfactory feedback to OSSAP-MDGs; circulated significant LGA level instructions and documentation across Guri LGA and communities through departmental memos and circulars supporting the scheme's implementation. However, in Mashi LGA, the level of the initiative was weakened by the high turnover of political and bureaucratic leaders and the 'micro-management' of the scheme by the state government (Yusuf & Hulme, 2019).

Secondly, in terms of mobilisation of support, even though both Guri and Mashi LGAs made considerable progress with the internal mobilisation of support from LGA staff, Guri was much more successful at mobilising community-level support than the Mashi LGA. For instance, fieldwork evidence indicates that with the support of traditional leaders, senior bureaucrats in Guri LGA made strong and effective personal efforts—such as conducting sensitisation programmes and outreach activities across the LGA—to achieve community buy-in to the programme. By contrast, only a few sensitisation activities were reported in Mashi LGA (Yusuf & Hulme, 2019).

Thirdly, the study noted that political leaders in both LGA demonstrated continuity of effort and resource allocation by providing annual counterpart funds and the personnel required to implement the scheme. For instance, both Guri and Mashi LGAs established active bank accounts specifically for the implementation of schemes. These local operations accounts were paid by the LGAs to provide stipends for staff members as well as administrative expenses including organizing meetings, training sessions, field visits, and monitoring. These efforts were sustained in Guri LGA thanks to the personal commitment of the LGA chairman and the presence of a



development coalition comprising local political elites, bureaucrats, and community members who supported the project. This however was not the case in Mashi LGA. At Mashi, the high turnover rate of political and bureaucratic leaders and the state government's interference in appointments and day-to-day management of the scheme reduced scheme performance (Yusuf & Hulme, 2019).

Additionally, Guri LGA outperformed Mashi in terms of employing sanctions and motivation to improve performance when applying credible sanctions. The Guri LGA chairman made periodic statements about the necessity for employee integrity, which inspired bureaucrats to completely commit to implementing the scheme. Similar strict compliance standards were applied to service providers and contractors, with repercussions for noncompliance. Communities that assisted in the scheme's implementation received additional support and projects. However, in Mashi, there was a seeming absence of positive or negative sanctions relating to scheme implementation. Between 2011 and 2015, Mashi LGA had three interim administrators and a high turnover of civil servants, which negatively affected overall performance (Yusuf & Hulme, 2019).

On the level of State government involvement in the reform, the study noted that, in both Guri and Mashi LGAs, state governments were deeply involved in managing the programme's procurement processes. Nevertheless, while there is evidence that the active 'agency' of local political elites in Guri LGA helped in making sure that contractors complied with contractual requirements, there seemed to be no local elite oversight at Mashi LGA. Consequently, most reform projects in Guri LGA were reported to have been successfully executed by contractors and service providers, due to the joint efforts of local elites and communities. In contrast, informal institutional

arrangements in Mashi LGA differed greatly from Guri and meant that the political elites were firmly in control of scheme resources. For instance, the state governor of Katsina appointed a full-time politician, not a civil servant, to head the PSU and located the PSU directly under his office. This facilitated the dispensing of patronage in the form of contracts to associates and many at Mashi were reported to have been executed in a substandard manner (Yusuf & Hulme, 2019).

In a separate study, Wetterberg's (2016b) analysis of the impact of the USAID-funded LEAD Programme in Nigeria on service delivery and social accountability also highlighted the importance of local context to Programme outcomes. According to the study, early project progress in Sokoto was significantly stronger than in Bauchi because of contextual differences. The study noted that the two principal states had different governing capacities and institutions. Although Bauchi was initially seen to have stronger governance than Sokoto, the LGA officials in Bauchi were state government-appointed civil servants who were frequently transferred between posts. This negatively impacted the Programme outcome in Bauchi. Secondly, the more challenging political and security situation hampered progress in Bauchi. The study noted that during security alerts, LEAD teams and CSO partners had to limit their activities. Consequently, LGAs' ability to collect revenues declined, and stakeholders could not be brought together for large meetings (Wetterberg, 2016b).

Similarly, Hertz (2016) analysed the Kinerja Public Service Delivery Programme in Indonesia with a particular focus on how the Programme promoted social accountability mechanisms in service delivery. Local NGOs and academic institutions served as intermediary entities in the Programme's implementation. It was determined that the effectiveness of implementation was dependent on the combination of a

number of variables, including the quality of technical assistance offered by local intermediary organisations, the level of Kinerja's staff engagement and the duration and intensity of the reform efforts made by local governments and local communities. Again, the Programme's midterm evaluation highlighted the importance of local context to Programme outcomes. The interaction of geography, implementer, and package, which in turn was closely linked to the performance of local Kinerja staff, local intermediary organisations, and service delivery units or local governments in various localities, resulted in a significant variation in the performance of the reform across different localities (Hertz, 2016). Moreover, a health clinic director's leadership style, for instance, could have a favourable or negative impact on the effectiveness of social accountability measures. Health clinic directors who demonstrated strong leadership in some districts were able to increase patient satisfaction and give some clinics more financial autonomy, including the authority to order medicines. (Wetterberg et al., 2015 in Hertz, 2016). Conversely, ineffective leadership hindered other districts' effective feedback processes (Social Impact & SMERU Research Institute, 2015 in Hertz, 2016). Additionally, a study comparing four Kinerja districts discovered that a district's level of experience with previous social accountability initiatives or provider attitudes could influence Programme outcomes. Consequently, the Programme was more successful in some districts and less successful in others (Hertz, 2016).

Lastly, in Ghana, studies have identified that where reforms have yielded desired results, there have always been disparities in impact on urban and rural administrations, with results favouring the former. For instance, Haruna (2003: 346) argues that previous public sector reforms which yielded results mostly favoured the 'golden triangle' or the southern urban regions.

## **2.9 The National Public Sector Reform Strategy (NPSRS) 2018-2023**

Upon the assumption of office of the New Patriotic Party in 2017, the government noted that despite the considerable efforts made by successive governments to salvage the ailing Ghanaian public sector, dividends accompanying past reforms ‘have been modest at best’ (GoG, 2017: vii). The government noted that past reforms have not been able to fully align public service delivery with the needs of the citizenry, and have not translated into ‘sufficient improvement in job creation and wealth maximization in key sectors of the economy’ (GoG, 2017: vii). The NPSRS was therefore launched in August 2018 to salvage this ailing Ghanaian public sector and to introduce some level of efficiency and effectiveness in the performance of government business (Agbevede & Tweneboah-Koduah, 2020).

The main thrust of NPSRS is ‘to enhance service delivery to citizens and private sector’ (GoG, 2017:12). It aims to boost public sector performance in order to better respond to citizen and private sector needs for sustained national growth and to reposition public sector actors and institutions to create the conducive environment for rapid gains in private sector competitiveness. (GoG, 2017: vii). NPSRS is thus the only reform, which aims at using the public sector to develop the private sector (Agbevede & Tweneboah-Kodua, 2020). For it is based on a new orientation of government aimed at making the public sector not only effectively and efficiently responsive to citizens, but also to the private sector (GoG, 2017). The theory of change for this strategy is that the quality of service delivery by the public sector to citizens and the private sector will be improved: If internal structures, mechanisms, and procedures are reoriented and integrated to support citizens and the private sector; if staff remuneration, incentives, training, and work environments are modernized and

improved; and if public sector services are digitalised to reduce red tape, ensure speed, and ensure efficiency (GoG, 2017:10).

The Programme is anchored on six main pillars namely:

- 1) A citizen- and private sector-focused public sector.
- 2) Capable and disciplined workforce.
- 3) Strengthened public sector regulatory framework.
- 4) Modernized and improved work conditions.
- 5) Strengthened Local Governance (LG) structures, and
- 6) Digitalised public sector services and systems.

Under each of these pillars are various Programmes and activities. State institutions are expected to adapt the six pillars to suit their own contexts and develop a result-based Action Plan for operationalizing the six pillars with the guidance of the Office of the Senior Minister. The Programme was to be implemented by selected MDAs and was to be coordinated by the Office of the Senior Minister (OSM) (GoG, 2017).

Again, for effective implementation of the Programme, the Public Sector Reform for Results Project (PSRRP) was introduced. The primary objective of PSRRP is to increase accountability and efficiency in service delivery across 16 chosen Ministries, Departments, and Agencies (MDAs), including the Driver and Vehicle Licensing Authority (DVLA), Ministry of Trade and Industry, Birth and Death Registry, Ministry of Local Government and Rural Development (MLGRD), Environmental Protection Agency (EPA), Ministry of Environment, Science, Technology, and Industry, Passport Office, and Ministry of Information. The initiative also aims to aid the National Information Technology Authority (NITA) in providing the chosen entities with core ICT services and related technical support and training. The Office

of the Senior Minister within the Office of the President was to implement this US\$35 million World Bank-supported initiative (OSM, 2020).

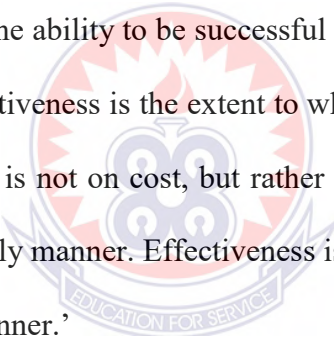
## **2.10 Efficiency and Effectiveness in Service Delivery**

Ever since the theory of fiscal federalism referred to efficiency in local governments, the topic has gained currency among both scholars and public administrators (Milán-García et al., 2021). The efficiency of service is by definition an abstract and subjective concept which differs significantly from one individual to another and varies in time and location. From an economic perspective, efficiency implies that there is no waste in the use of resources. Efficiency requires rational use of resources. That is little input for greater output (Milán-García et al., 2021; Palmer & Torgerson, 1999). Beerli et al. (2019) for instance define efficiency as the extent to which public organisations provide a specific service while utilizing the least amount of resources possible. Gumah and Aziabah (2020) however contend that the focus of public service delivery must transcend the input-output concept. The question to ask is if the products are those that the public values. This is due to the fact that, although a service may be delivered efficiently technically, it may still constitute an inefficient use of resources if it is not one that people want (Gumah & Aziabah, 2020).

In public service delivery, since the citizen (customer satisfaction) is the center of service delivery, two main inferences can be made from the input-output concept. On one hand, efficiency in service delivery requires that public administrators satisfy the needs of citizens with the least feasible use of resources. That is, little resources be utilized or spent to deliver more quality services (Milán-García et al., 2021; Beerli et al. 2019; Palmer & Torgerson, 1999). On the other hand, citizens must utilize as few resources (interpreted to include financial, time, effort etc.) as possible to get their

needs satisfied (Russell, 2021a; Gumah & Aziabah, 2020; Osei-Kojo, 2016). This means that as far as practicable, citizens must be able to access quality services with less stress; and the service must respond to their needs. This is what Russell refers to as the best ‘value for money and time’ (Russell, 2021:a). Efficient public service delivery, therefore, involves creating a win-win situation for both producers (public organisations) and consumers (citizens) of public services. In this sense, efficiency is the extent to which quality public services are delivered to citizens while avoiding waste either in terms of time or resources (Osei-Kojo, 2016).

The Oxford Dictionary defines effectiveness as the degree to which something is successful in producing the desired result. Similarly, the Cambridge Dictionary also defines effectiveness as ‘the ability to be successful and produce the intended results.’ In accounting terms, effectiveness is the extent to which objectives are attained. Thus, the focus of effectiveness is not on cost, but rather on targeting the correct tasks and completing them in a timely manner. Effectiveness is considered to be ‘doing the right thing’ and ‘in a timely manner.’



In service delivery, Ofoma (2022) contends that the concept of public service delivery presupposes that there is a contractual relationship between the customer (the public) and the service provider (a government agency) which obliges the latter to render services to the former in a most satisfactory way, be it in terms of utility, quality, convenience, timelines, cost, courtesy, communication or otherwise. Shittu, (2020) on the other hand argues that public service exists to serve the purpose of service delivery and such services should meet the needs of the citizens. By inference, if the sole purpose of the public service is to deliver services to satisfy citizens, then public organisations are deemed effective when they are able to achieve this objective and in



a timely manner—provide services to meet the needs of citizens in a timely manner. That is, it is not only enough to deliver services, but those services must be delivered in a timely manner, and must serve the purpose for which they are produced (meet the needs of citizens).

Evaluating service efficiency and effectiveness is a long and painstaking undertaking. This is because first, service quality attributes have different materiality and vary significantly by industry, by period, by customer base segment, and from one customer to another (PACS, 2021). Osei-Kojo (2016) however holds that public sector quality cannot be solely evaluated by institutions in the public sector; what citizens believe and perceive matters just as much in the assessment. Ofoma (2022) asserts that the consumer (the general public) is treated as ‘king’ in the contractual relationship between them and the service provider (a government agency). As a result, the public is seen as the ‘master’ and the last arbiter of performance in the delivery of public services. For Andrews and Entwistle (2014), the patterns of service use are a valuable proximate indicator of allocative efficiency. As a result, allocative efficiency can be assessed by using surveys to determine citizens’ level of satisfaction with the public services delivered by a government (Dowding & Mergoupis, 2003). Consequently, in order to determine the extent to which digitalisation has increased efficiency and effectiveness in local service delivery, this study relied on the perceptions of its informants—both officials of the assemblies as producers of local services and residents as consumers of local services.



## CHAPTER THREE

### RESEARCH METHODOLOGY

#### 3.0 Introduction

This chapter discusses the research methodology adopted for the study. The sections covered include the introduction, research paradigm and research design, study location, sampling and sampling techniques, research instrument as well as data collection procedure. Data handling, ethical considerations, and the trustworthiness of the study are also discussed in the chapter.

#### 3.1 Philosophical Position

This study is grounded in the social constructivist worldview, accompanied by relevant research approaches and methods. Social constructivists believe that individuals seek an understanding of the world in which they live and work, and develop subjective meanings of their experiences (Creswell, 2014, 2009; Crotty, 1998). Due to the variety and multiplicity of these meanings, the researcher focuses on the diversity of viewpoints rather than categorizing or reducing meanings to a small number of concepts (Creswell, 2009). Social Constructivists focus on the specific contexts in which people live and work to understand participants' historical and cultural settings (Creswell, 2009). This, therefore, according to Crotty (1998), requires visiting participants' settings and gathering information personally to understand the context of the participants. Crotty (1998) argues that the primary generation of meaning is always social, arising in and out of interaction with a human community. As a result, the researcher makes use of participant perspectives as much as feasible when doing the research. In order for participants to construct the meaning of a situation, which is often formed in conversations or interactions with other people, broad and generic questions are posed (Creswell, 2009). The less structured

the questioning, the better, as the researcher is able to listen carefully to what people do or say in their everyday life setting (Creswell, 2009). Social constructivism also recognizes that researchers' backgrounds shape their interpretation; hence, they position themselves in the research to acknowledge how their interpretation flows from their personal, cultural, and historical experiences (Creswell, 2009). This study, therefore, relies as much as possible on participants' views on how digitalisation has affected local service delivery and social accountability mechanisms in the Accra Metropolitan Assembly, Techiman North District and the Nabdram District.

### **3.2 Research Design**

The study adopts the case study design within the qualitative research approach. Qualitative research explores the meanings individuals or groups ascribe to social or human problems and focuses on the use of words rather than numbers in interpreting results from a study (Creswell, 2014). A case study is a strategy of inquiry in which the researcher conducts an in-depth examination of a Programme, event, activity, process, or one or more individuals (Creswell, 2009). It is useful when a researcher wants to understand an event that occurred to a particular person or group at a particular point in time (Terrell, 2016). According to Creswell (2009), cases are bounded by time and activity, and researchers collect detailed information using a variety of data collection procedures over a sustained period of time. These methods were deemed appropriate for this study because they paved way for the search for the holistic description of the problem under study as they enabled the researcher to obtain enough quality data that reflect the views of participants, which helped address the research problem.

### **3.3 Study Locations and Sites**

The study was conducted in the Accra Metropolitan Assembly in the Greater Accra Region; the Techiman North District in the Bono East Region; and the Nabdam District in the Upper East Region. These locations were particularly selected to represent different contexts, and cases of implementation and to enable the researcher to ascertain how the NPSRS (2018-2023) has impacted DAs in different geographic, economic and socio-cultural settings. For instance, the AMA was selected to represent the Coastal belt. It is purely urban with no rural characteristics; it is a service, manufacturing and sales-based economy; it has low poverty levels; high literacy rate; and high usage of ICTs etc. (GSS, 2021, 2015, 2014a). Inversely, the Nabdam District is located in the Savannah belt. It is entirely rural with no urban characteristics; it is an agricultural-based economy; it has high levels of poverty; a low literacy rate and low usage of ICTs (GSS, 2021, 2015, 2014c). The Techiman North District, on the other hand, represents the forest belt. It has both urban and rural characteristics; it is an agriculture and sales-based economy; average poverty levels; high literacy rate; and average usage of ICTs (GSS, 2021, 2015, 2014b).

### **3.4 Target Population**

The population identified for the research included officials of the selected DAs; members of civil society organisations; community-based organisations; and Assembly Members within the selected districts.

The officials of the assemblies included Directors, heads of the District Planning Coordinating Units (DCPUs), and Heads of the MIS/ICT units of the DAs studied. This population was consulted because they are the key implementers of the Programme at the district level. The DCPU officials were consulted because the

DCPU is the main unit within the Assembly in charge of the implementation of the NPSRS in the District. The ICT officials were also consulted because the ICT unit is the ICT policy implementation unit of the Assembly and therefore in charge of the implementation of digitalisation within the district. Lastly, the Directors of the Assemblies were included because they supervise the implementation of the reform in the assemblies.

The CSOs consulted also included the Women Integrated Development Organisation (WIDO); The Purim African Youth Development (PAYD); Care International; Link Community Development; Widows and Orphans Movement; and Rice Ghana. The CSOs were consulted because they complement the efforts of the assemblies as far as governance in the districts is concerned. This therefore puts them in a better position to provide information on the impact of NPSRS on governance in the district.

The leaders of the CBOs consulted included dressmakers associations; hairdressers associations; market queens; and store operators associations all spread across the districts. These groups were consulted because they are the direct beneficiaries of the services of the assemblies. This therefore puts them in a better position to provide information on how the digitalisation has affected the quality of services they received from the assemblies.

The Assembly Members were also included because they are the representatives of the people in the districts. Aside this, they also deal directly with the assemblies. Juxtaposing their experiences with those of the officials of the DAs was therefore crucial for drawing insightful conclusions.

Together, this population form key stakeholders as far as implementation of the reform is concerned. This puts them in a better position to provide insightful information to answer the research questions.

### **3.5 Sampling**

#### **3.5.1 Sample Size**

A total of twenty-seven (27) informants were interviewed for the study. This included six (6) District Assembly officials. Out of this number, one (1) was an Assistant Director, three (3) were heads of the District Planning Coordinating Units, and two (2) were ICT officers. The other informants included six (6) CSO officials, nine (9) leaders of CBOs, and six (6) Assembly Members all spread across the three districts. Two main reasons underscore the choice of the sample size of 27. The first resides in the research design adopted for the study. Samples in qualitative researches tend to be small in order to support the depth of case-oriented analysis that is fundamental to this mode of inquiry (Sandelowski, 1996). Vasileiou et al. (2018) for instance maintain that qualitative samples are purposive, and selected by virtue of their capacity to provide richly-textured information, relevant to the phenomenon under investigation (Vasileiou et al., 2018). Consequently, they tend to target responses the ‘few’ holds rather than that of the ‘many’ (O’Leary, 2017). Most scholars therefore recommend 15–30 interviews for case study researches (Vasileiou et al., 2018; Boddy, 2016; Marshall et al., 2013). Boddy (2016: 429) for instance goes further to argue that in a single country or relatively homogeneous population, any qualitative sample size over 30 becomes unwieldy to administer and analyse and would require proper justification. The second reason also resides in the principle of saturation. Lincoln and Guba (1985) proposed that sample size determination be guided by the criterion of informational redundancy. That is, sampling can be terminated when no new

information is elicited by sampling more units. Consequently, the sample size of 27 deployed in this study is considered adequate to support the conclusions drawn from the analysis. Table 1 shows a distribution of sample size per district.

**Table 1: Summary of sample size**

| DA/CATEGORY             | AMA      | TNDA     | NABDAM DA | TOTAL     |
|-------------------------|----------|----------|-----------|-----------|
| DA Officials            | 2        | 2        | 2         | 6         |
| CSOs                    | 2        | 2        | 2         | 6         |
| CBOs                    | 3        | 3        | 3         | 9         |
| Assembly Members        | 2        | 2        | 2         | 6         |
| <b>Total No. per DA</b> | <b>9</b> | <b>9</b> | <b>9</b>  | <b>27</b> |

### 3.5.2 Sampling Technique

The study adopted the purposive sampling within the non-probability sampling technique to draw informants from the target population. This method was adopted because the number of people with relevant information for this study is limited and already predefined. Expert purposive sampling was particularly adopted to draw the officials of the assemblies. This is because the directors, DCPU and ICT officials are directly involved with implementation. Therefore together, they possess expert knowledge within the assemblies as far as the implementation of the digitalisation Programme is concerned. Similarly, the researcher purposively sampled leaders of identifiable CBOs, CSOs and Assembly members within the three districts. In this regard, the researcher mostly relied on referrals from the assemblies to contact these groups of informants. This is due to the fact that such informants were not easily located especially in districts which the researcher was not familiar.

### **3.6 Sources of Data**

The study gathered data from both primary and secondary sources. The Primary data was collected from respondents through the use of semi-structured interviews and observation. On the other hand, textbooks, magazines, articles, journals, newspapers etc. obtained from authoritative sources formed the secondary data of the study.

### **3.7 Research Instrument**

In gathering relevant data for the study, semi-structured interviews were used to obtain qualitative data from respondents. This instrument was adopted because it reflects the philosophical worldview underpinning this research and is fit for the case study design. The semi-structured interview gave informants unrestricted opportunity to express themselves; and offered the researcher the opportunity to understand issues from the perspectives of informants and to obtain enough quality information on the subject matter. To put the researcher in check and to enable him to cover all the issues related to the study, two sets of interview guides were designed taking into account the research questions and objectives. The interview guides were divided into six sections each, including the demographic information of respondents. Other themes in the interview guides included: The state of digitalisation of MMDAs; the impact of digitalisation on service delivery; the impact of digitalisation on social accountability mechanisms; challenges to implementation of digitalisation and recommendations etc. In order to determine the validity of the research instrument and identify errors within the questions, the interview guide was pilot-tested at the Techiman Municipal Assembly before proceeding to carry out the study. In addition to the interview guide, recorders (mobile phones), field notebooks and jotters were employed in gathering data for the study. Lastly, field observation was also employed by the researcher to check the validity of responses.

### **3.8 Data Collection Procedure**

Interviews were conducted in offices; residences and convenient places determined by informants. In the process, the researcher gave a brief introduction and sought respondents' consent to participate in the study. The conversations were audio-recorded and handwritten to serve as backup. Face-to-face interviews (comprising both one-on-one interviews and focus group discussion) were mainly adopted by the researcher to gather data from informants. The focus group discussion method was particularly adopted to gather data from the Women Integrated Development Organisation (WIDO). In total, out of the twenty-seven (27) interviews conducted, twenty-two (22) were granted face-to-face while five (5) were granted via phone. The English language was mainly used in conducting the interviews with all the officials of the selected DAs and all members of the CSOs. On the contrary, the language varied when it came to the CBOs and the Assembly Members. In the Nabdam District, only the English language was adopted to interview CBOs and Assembly Members. However, in the Accra Metropolitan Assembly and the Techiman North District, both the English language and Asante Twi (especially where informants could not freely express themselves in the English language) were employed to gather data from informants in this category.

### **3.9 Data Management**

All interviews conducted were transcribed. However, interviews conducted in the Asante Twi dialect were first translated into the English language by the researcher before transcription. The transcribed data was read thoroughly to identify mistakes and to make meaning. Based on the research objectives, data were then grouped and analysed thematically to identify patterns and themes in informants' responses. Finally, the result was presented and discussed based on the identified themes. Direct



quotes were used where necessary, to bring out informants' accounts and perspectives.

### **3.10 Ethical Considerations**

Ethical issues aimed at ensuring the validity and reliability of the research findings were strictly observed during this study. First, the researcher secured an introductory letter from his department (the Department of the Political Science Education) before entering the field. On the field, informants were informed of the purpose of the study and their consent was sought. Again, the information sought from respondents was used solely for the purpose of this study; and the anonymity of respondents was ensured and protected. Significantly, all documents used and sites consulted in this study have also been properly acknowledged.

### **3.11 Trustworthiness of the Study**

Researchers should specify the protocols and practices required in each study in order for it to be taken into account by readers and the academic community. The degree of confidence in the data, interpretation, and methods employed to ensure the quality of a study is referred to as the trustworthiness or rigour of the study (Connelly, 2016). Despite disagreements about what defines trustworthiness in the literature, there is broad agreement among experts that trustworthiness is essential for research (Hastings, 2012; Shenton, 2004). Many qualitative researchers agree with the standards outlined by Lincoln and Guba (1985). These criteria include credibility, dependability, confirmability, and transferability. Connelly (2016), however, maintains that not all these criteria are used in a study.

**a. Credibility:** Lincoln and Guba contend that one of the most crucial elements in building trustworthiness is ensuring the study's credibility or confidence in the

validity of the findings (Lincoln & Guba, 1985). This principle is equivalent to internal validity in quantitative research. It answers the question, how realistic are the findings of the study? (Shenton, 2004: 64). Again, was the study conducted using standard procedures typically used in the indicated qualitative approach, or was an adequate justification provided for variations? This study employed triangulation to establish the credibility of the research findings. For instance, to ensure data triangulation, multiple methods (one-on-one interviews, focus group discussion and observations) and data sources were used to develop a comprehensive understanding of the problem under study. Again, interviews with staff of the assemblies studied were compared and cross-checked with those of CSOs, CBOs and Assembly Members. Moreover, personal observation, including an analysis of the assemblies' websites, was employed to verify the validity of information shared by informants. Furthermore, the study adopted iterative questioning and probes to check for consistency in responses and to uncover deliberate lies which may thwart the credibility of the research findings. Shenton (2004:67) emphasizes once more how important peer review and frequent debriefing meetings between the researcher and their superiors are for guaranteeing credibility. He contends that by having a dialogue, the investigator's perspective may be widened as others share their experiences and viewpoints. The researcher can use such collaborative sessions to explore alternate strategies, and people with greater supervisory responsibilities may point out shortcomings in the proposed course of action. In this regard, interview responses, transcripts and the findings derived were reviewed by the researcher's supervisor to verify the accuracy of recorded responses and comment on the conclusions drawn. Again, scrutiny of the project by colleagues, peers and academics, as well as feedback

offered to the researcher at all conferences made over the duration of the study were welcomed and incorporated into the study.

**b. Transferability:** This describes how the researcher illustrates how the study's conclusions apply to different contexts, including comparable people, circumstances, and phenomena. In a quantitative study, the concern often lies in showing that the findings can be applied to a wider population. It is however impossible to demonstrate that the findings and conclusions of a qualitative study are applicable to different settings and populations since the findings are specific to a particular context (Shenton, 2004: 69). Therefore, such an approach can be pursued only with caution since it appears to belittle the importance of the contextual factors which impinge on the case. Lincoln and Guba and Firestone however are among those who present a contrary argument and contend that it is the investigator's duty to ensure that sufficient contextual information about the study site is supplied to enable the reader to make such a transfer. They however concede that the researcher cannot draw conclusions about transferability since they only know the 'sending context.' Therefore, in order to enable transferability, researchers must provide enough information about the study's context for a reader to be able to determine whether the current environment is comparable to another setting they are familiar with and whether the findings can be appropriately applied to that context (Shenton, 2004). This study, therefore, provides detailed descriptions of the context of the fieldwork so that practitioners, who believe their situations are similar to that described in this study, may relate the findings to their own positions. For instance, the geographical political, social, and economic contexts of DAs involved in this study have been provided. Furthermore, the number of participants involved in the study; data

collection methods and procedures that were employed have all been provided in the study.

**c. Dependability:** This refers to the degree to which the study could be replicated and the results would be consistent. In addressing the issue of reliability, the positivist employs methods to demonstrate that comparable results would be obtained if the study were replicated in the same setting, using the same procedures and using the same subjects. However, as Fidel, Marshall, and Rossman point out, such provisions become problematic in qualitative researchers' work due to the dynamic nature of the phenomena they study (Shenton, 2004). Florio-Ruane (1991) argues that the published descriptions are 'static and locked in the ethnographic present.' He also emphasizes how the investigator's observations are tied to the context of the study. This study uses an inquiry audit (where an outsider reviews and examines the procedure) to establish the study's trustworthiness. In this instance, the study's methods and results were reviewed and examined by the researcher's supervisor. Furthermore, the methods used in the study were described in full, allowing a subsequent researcher to repeat the methods without necessarily repeating the same outcomes or conclusions.

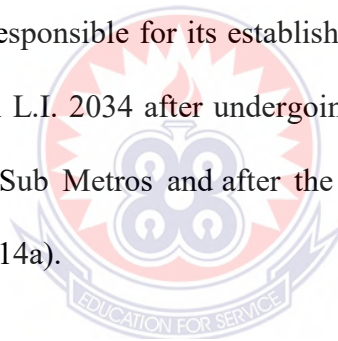
**d. Confirmability:** This principle relates to the level of objectivity in the study's findings. This happens when participants' reactions, rather than the researcher's prejudice or personal motivations form the basis of the findings. Confirmability necessitates that researchers take steps to show that conclusions originate from the facts and not their own predispositions (Shenton, 2004: 63). The degree to which the researcher discloses their own biases is seen by Miles and Huberman as a critical factor in confirmability. To this end, beliefs underpinning decisions made and

methods adopted have been acknowledged within the study. The reasons for favouring one approach when others could have been taken have been explained, and weaknesses in the techniques actually employed admitted.

### **3.12 Contexts of Study Sites**

#### **3.12.1 Accra Metropolitan Assembly (AMA)**

AMA is one of the 29 MMDAs in the Greater Accra Region and one of Ghana's 261 Metropolitan, Municipal and District Assemblies (MMDAs). It has been the Greater Accra Region's capital since its founding in 1898. Additionally, it serves as Ghana's capital city (GSS, 2014a). The Local Government Act, 1993 (Act 462) and Legislative Instrument 1615, which also created the Six (6) Sub-Metropolitan District Councils in 1898, were responsible for its establishment. The AMA as it is currently was created in 2012 with L.I. 2034 after undergoing a lot of changes in terms of its size and the number of Sub Metros and after the creation of the La Dadekotopon Municipal Area (GSS, 2014a).



##### ***a. Demographic Characteristics***

According to the 2021 Population and Housing Census (PHC), The Metropolis has a total population of 284,124, comprising 134,045 (47.2%) males and 150,079 (52.8%) females. It is mainly urban with no rural characteristics. The 2010 PHC, identified that about five (47.0%) out of every ten persons in the Metropolis are migrants, mostly from the Eastern Region (GSS, 2021, 2014a).

##### ***b. Poverty Rate***

In terms of incidence and depth of poverty, the 2015 poverty map of Ghana indicates that the Metropolis is the second lowest in the Greater Accra Region, recording 2.6% and 0.6% in poverty incidence and depth of poverty respectively (GSS, 2015: 18).

***c. Culture and Religion***

Culturally, they practice the patrilineal system of inheritance, and the Ga Traditional Council, headed by the Ga Mantse (Chief of Ga), is the highest traditional authority. Its membership comprises eight chiefs of various communities in the Metropolis including James Town, Osu, Abeka, Sakaman etc. English and Ghanaian Language are the main medium of communication in the Metropolis. However, the main language spoken by the indigenous people is Ga (GSS, 2014a). Christianity is the dominant religion (78.7%) in the Metropolis followed by Islam (17.0%) while the least (0.3%) is the African Traditional Religion (ATR) (GSS, 2014a).

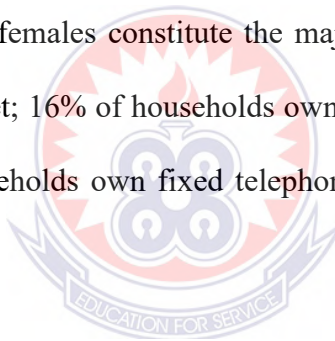
***d. Economic Characteristics***

Hosting a number of manufacturing industries, oil companies, financial institutions, telecommunication, tourism, education, health institutions and other important establishments, the Metropolis is the economic hub of the Greater Accra Region and the rest of the country. These institutions together, provide employment opportunities to residents of the city; and the private sector is the main employer in the Metropolis (GSS, 2014a). In terms of employment, 70% of the population who are 15 years and above are economically active. Out of this, about 93% are employed while 7% are unemployed. Self-employed without employee(s) is the main employment which is dominated by females (GSS, 2014a). The majority of residents in the city are engaged basically in the primary, secondary and tertiary sectors of the economy. They are engaged in occupations or employments such as trading, construction, fishing, farming, services, and manufacturing among others. The indigenous people until recently were mostly engaged in fishing and farming. However, service and sales work is the most common occupation in the metropolis, which is again dominated by females (GSS, 2014a).

*e. Literacy/Information Communication Technology (ICT)*

In terms of literacy level, the 2010 PHC highlighted that 89% of the population aged 11 years and above were literate (in English, any Ghanaian language, or French) while 11 per cent were not literate. Five out of every 10 persons (52.0%) could read and write English and Ghanaian languages. Also, six out of every 10 persons who were 65+ could read and write English and Ghanaian languages. However, the number of non-literate females (98,439) was more than twice that of males (39,567). Similarly, the female literate population (584,637) in the Metropolis was slightly more than their male counterparts (580,506).

Three-quarters (75.4%) of the population, 12 years and older, own mobile phones in the Metropolis of which females constitute the majority; about one-fifth of the total population use the internet; 16% of households own desktop/laptop computers; 5% of the total number of households own fixed telephone lines, particularly male-headed households (GSS, 2014a).



### **3.12.2 Techiman North District**

The Techiman North District is one of the eleven (11) MMDAs in the Bono East Region of the Republic of Ghana. The District was established by the Legislative Instrument (LI 2095) and was duly inaugurated on Thursday, 28th June 2012 with Tuobodom as the District Capital. It was carved out of Techiman North District Assembly to ensure and strengthen decentralization and effective grass root participation in governance at the local level and bring development to the doorsteps of the people (GSS, 2014b). The District is made up of sixty-four (64) towns and villages. Most of the settlements in the District are located along the two (2) main



arterial roads in the District—the Techiman-Wenchi and Techiman-Kintampo routes (GSS, 2014b).

***a. Demographic Characteristics***

In terms of demographics, data from the 2021 PHC shows that the district's population is 102,529, comprising 50,248 (49%) males and 52,281 (51%) females. Of this, a majority (70,031) constituting 68.3% of the population lives in urban areas, while 32,498 (31.7%) live in rural areas. According to the 2010 PHC, the distribution of the population indicates that the district has a young population with a large proportion (57.0%) falling within the age group of 15-64, while less than 1% is above 65 (GSS, 2021, 2014b).

***b. Poverty Rate***

In terms of poverty rate, the district is neither among the highest nor the lowest in the Region. The 2015 poverty map of Ghana indicates that the district has a poverty incidence ranging from 10-19% and a poverty depth below 5% (GSS, 2015: 30-31).

**3.3.2.4 Economic Characteristics**

About 75.1% of the total population in the Techiman North District is economically active whereas 24.9% is economically not active. Among the economically active population, 95.6% are employed with 4.4% being unemployed. Agriculture and related work is the major occupation in the district, accounting for 84.4 per cent of the district's employed population. 60.3% of households in the district are engaged in agriculture, with the two traditional activities of crop farming and livestock rearing being the most predominant in both urban and rural communities. Other proportions of the employed persons are engaged as service and sales workers (6.1%) and Craft and related trades workers (6.0%). Professional workers constitute only 1.1 per cent



of the employed population 15 years and above. In terms of distribution, the 2010 population and housing census revealed that skilled agricultural, forestry and fishery is the predominant occupation in the district which employs about half (49.1%) of the district's employed population. Service and sales workers constitute 20% of the employed population followed by a craft and related trades workers (12.7%). Less than one per cent (0.7%) of the employed population is employed in clerical support worker occupation (GSS, 2014b).

***c. Religious affiliation***

About 60% of the total population in the District are Christians while about 19% belong to the Islamic religion. A significant 6.8% of the population professes no religion or does not practice any religion, followed by traditionalists (1.3%) and other religions (0.4%). Thus, in the District, Christianity and Islam are the dominant religions (GSS, 2014b). A larger proportion of females (75.9%) are Christians compared to males (69.4%). However, more males (19.6%) than females (17.9%) are Muslims (GSS, 2014b).

***d. Literacy/ Information Communication Technology***

In terms of literacy and education, the data shows that out of a total number of the population 11 years and older in all the different age groups, 73.3% are literate while 26.7% are not literate. In general, the older folks in the District have lower literacy rates compared with the younger folks, implying that literacy decreases as age advances. From the age group 11-14 years, there is a steady decline in the literate population up to the age group 65+ (GSS, 2014b).

In terms of usage of ICTs, out of the total population aged 12 years and older, less than half (45.9%) have mobile phones in the District. This implies a mobile

penetration of about 46%. With regards to Desktop/laptop computers, only 3.7% own desktop/laptop computers in the District, while 2.3% have access to the use of internet facilities which is lower than the regional average of 3.4 per cent and the national average of 7.8 per cent (GSS, 2014b).

### **3.12.3 Nabdam District**

The Local Government Instrument (L.I.2105) created the Nabdam District Assembly. It is one of the most recent Districts to be established, having been split off from the Talensi-Nabdam District Assembly in 2012. The Nabdam District, which has Nangodi as its seat and part of Ghana's Upper East Region, is divided into three area councils: Nangodi, Sakoti, and Zoliba. It is bordered by the Bongo District to the north, the Talensi District to the south, the Bolgatanga Municipality to the west and the Bawku West District to the east.

#### ***a. Demographic Characteristics***

Per the 2021 PHC data, the Nabdam District is entirely rural and made up of a total population of 51,861 out of which males are 25,552, representing 49.3% and females numbered 26,309, representing 50.7% of the population. As of 2010, the total age dependency ratio of the district was 94.1. This meant that for every 100 persons in the working age group, there were 94.1 persons to cater for in the district (GSS, 2021, 2014c). The age structure of the district follows the regional as well as the national pattern. It is skewed towards the youth. Children less than 5 years constitute 13.8% of the total population, those less than 15 (0-14 years) represent 41.7% while youths aged between 15 and 24 years represent 18.1%. In all, the population 0-24 years of age is 59.8%. The elderly (65+) constitute 6.9% of the District's population (GSS, 2014c).

***b. Poverty Rate***

In terms of poverty rate, the 2015 poverty map of Ghana indicates that the district is the fourth highest in the Upper East Region with a 63% rate in the incidence of poverty, after Builsa South (84.4%), Bawku West (68.1%), and Bongo (67.4%). Again, in terms of the depth of poverty, a similar pattern is observed. It is the fourth highest in the region, with a 31.3% rate after Builsa South (51.8%), Bawku West (37.2%) and Bongo (36.4%) districts (GSS, 2015: 35).

***c. Culture and Religion***

The majority of the District's residents are members of the Nabdam ethnic group who speak Nabit or Guruni. In terms of traditional governance, the Nabdam District is divided into the Nangodi and Sakoti paramountcies, each of which has its own divisional and sub-divisional heads. Elders, tindanas, and Paramount Chiefs govern the Paramountcies. Customs, norms, values, and taboos are highly valued by the inhabitants of the Nabdam traditional area. Many things are revered, prohibited, and held sacred by the district's residents. These sacred locations function as community-based healing and mentally relieving centers and, more recently, tourist destinations, providing a source of income for many guardians of the ancient practices.

In the Nabdam communities, there is a usufruct kind of land tenure. Individuals and families own land. The Tindana, who is the Chief Priest and the land's custodian, bears the allodia title because he holds the land in trust for the present and future generations. Individuals or families have the authority to determine the ownership transfer. There are a few yearly customs and festivals celebrated in the District that are well-attended. Some take place before planting season, while others happen after crop harvesting. The prominent ones are Tenlebgre, which is observed among the

Nabit-speaking people, and Tungama, which is also observed among the Guruni-speaking people. Other celebrations and cultural events have a local focus to strengthen relationships with the community and families (GSS, 2014c).

Traditionalists (47.2%) make up the majority of the district's population, followed by Christians (46.6%) and people who do not practice any religion (4.6%). Muslims make up less than 2% of the population (GSS, 2014c).

#### **d. Economic Characteristics**

Economically, the Nabdam District is predominantly an agricultural-based economy, with a greater proportion of the households (85.9%), engaged in the cultivation of crops, rearing of animals and planting of trees among others. Again, agriculture is a female-dominated industry in the district, with about 50.7% of those actively engaged in agriculture being females, while 49.3% are male (GSS, 2014c). 98.3% of the economically active population are employed while the unemployed constitute 1.7%. Agriculture, forestry and fishing constitute the largest industry, employing 84.5% of the workforce aged 15 years and older. Other major industrial activities include wholesale and retail; repair of motor vehicles and motorcycles (3.0%), manufacturing (3.6%), construction (0.2%), mining and quarrying (3.0%), education (1.3%) and the rest accounting for 4.4% (GSS, 2014c).

#### **e. Literacy/ Information Communication Technology (ICT)**

58.4% of the total population 11 years and older are not literate and 41.6% are literate. Out of the literate population, 82.3% are literate in English only, 1.4% in Ghanaian Language only, 16.1% in English and Ghanaian Language, and only 0.1% is literate in English and French (GSS, 2014c). There is limited usage of mobile phones and the internet as well as desktop or laptop computers in the Nabdam District. About 19%

per cent of the population 12 years and older own mobile phones, while 1.6% used Internet facilities. Only 0.8% of the total household population owns laptop computers.

**Table 2: Summary of study areas' contexts**

| <b>DISTRICT/FEATURES</b> | <b>ACCRA<br/>METROPOLITAN</b>       | <b>TECHIMAN<br/>NORTH</b> | <b>NABDAM</b>                      |
|--------------------------|-------------------------------------|---------------------------|------------------------------------|
| Population Size          | 284,124                             | 102,529                   | 51,861                             |
| Belt/Zone                | Coastal                             | Forest                    | Savannah                           |
| Urban/Rural dichotomy    | Entirely Urban                      | Both Urban and<br>Rural   | Entirely Rural                     |
| Poverty Rate             | Low                                 | Average                   | High                               |
| I.C.T Usage              | High                                | Low                       | Low                                |
| Literacy Rate            | High (89%)                          | High (73.3%)              | Low (41.6%)                        |
| Economic Activities      | Service, manufacturing<br>and sales | Agriculture and sales     | Predominantly<br>Agricultural      |
| Dominant Religion        | Christianity                        | Christianity              | African<br>Traditional<br>Religion |

## CHAPTER FOUR

### DATA ANALYSIS AND DISCUSSION OF FINDINGS

#### 4.0 Introduction

This chapter presents the analysis of the data collected and discusses the major findings of the study. In a bid to answer the research questions, personal observation and semi-structured interviews were employed as research instruments to gather the necessary data for the study. In all, 27 participants were interviewed. They included six (6) district assembly officials, six (6) CSO officials, nine (9) leaders of CBOs, and six (6) Assembly Members, spread across the three districts studied. Out of the 27 interviews conducted, 22 were conducted face-to-face, while 5 were conducted via phone. Drawn from the dominant and recurrent patterns that emerged from the analysis of the data collected, the findings have been presented under four main themes, namely: the extent of digitalisation of selected MMDAs; the impact of digitalisation on service delivery; the impact of Digitalisation on social accountability mechanisms; and challenges to reform implementation. These themes were arrived at, taking into consideration the main objectives of the study.

#### 4.1 The State of Digitalisation of Selected MMDAs

This section sought to ascertain the extent to which the activities of the DAs under study have been digitalised. The descriptive qualitative questions that were asked under this section primarily centered on the extent to which the assemblies have been digitalised in terms of technology (availability of appropriate technologies and ICT equipment, e.g., computers, printers, internet, power, scanners, photocopiers, etc. hardware and software); staffing and skills (adequate number of staff and requisite IT and managerial skills); and processes (digitalised work, managerial, and institutional processes). An analysis of the data gathered revealed that all the assemblies have

attained some minimal level of digitalisation in terms of technology, human resources, and processes.

Concerning technology, the study found that all the DAs under study had the relevant technologies and assistive ICT equipment requisite for digitalisation. However, most of these technologies are either non-functional or outdated and not functioning at full capacity. In the TNDA, some officials revealed that the Assembly has made conscious efforts to phase out the majority of such computers every year, yet, there are still more left in the system. This affects the assemblies' ability to operate at the desired speed typical of the information age.

The study further revealed that some assemblies (such as the Nabdam DA) have no ICT unit. It is instructive to note that the ICT units of the assemblies are key to the implementation of the digitalisation Programme in the districts. This is because the units are the ICT policy implementation arms of the assemblies and therefore are (or are supposed to be) in charge of the implementation of the whole digitalisation Programme. The absence of an ICT unit, therefore, poses a serious threat to digitalisation. The following statements reflect the technological context of the DAs as far as digitalisation is concerned:

*If I am speaking for my department (MIS), we lack resources... Most of our computers are either outdated or broken down. We need current computers because now we are in a digital age, so we need to move with speed to catch up with existing systems... but the resources are not available, and the funds to push the whole agenda are not forthcoming (DA Official, September 2022).*

An official in the Nabdam DA also expressed worry about the Assembly 's lack of an ICT unit

*...So that is a challenge because, in some places like the Accra metro, for instance, they have...a full IT unit. But here, we don't even have an IT officer, not to mention an IT unit (DA Official, September 2022).*

It is worth stressing that robust and appropriate digital infrastructure and technologies are fundamental to the whole digitalisation reform agenda. They are the foundation upon which digitalisation rests, and they determine the extent to which an organisation can digitalise. According to Baker (2011), an organisation's current technologies play a significant role in the adoption process because they determine the amount and speed of technological reform it can make. This finding, therefore, raises serious concern as far as digitalisation of the DAs is concerned.

With respect to human resources with the requisite IT and managerial skills, the outcomes varied from one DA to another. While some DAs like the TNDA and the Nabdam District experienced serious human resource deficits, the situation was rather the opposite in the AMA, which had an overstaffed IT unit. The data gathered revealed that the AMA has a full IT unit with more than required staff. The TNDA on the other hand, even though had an IT unit, had only one IT officer. It was identified that transfers and reposting have dwindled the Assembly 's number of ICT staff, leaving the Assembly with only one ICT officer. This situation is worrying because, for only one officer to be serving a whole district as the TNDA, there are questions on how effective and efficient he can be, considering the enormity of the workload. Moreover, this also means that in a situation where the officer is indisposed, work must come to a standstill. The situation is even worse in the Nabdam DA, which did not have a single IT officer.



*If by 'staffing' you mean staff with ICT background, then no. So that is a challenge because, in some places like the Accra metro, for instance, they have an IT officer and a full IT unit. But here, we don't even have an IT officer not to talk of an IT unit (DA Staff Nabdam District, September 2022).*

Another officer of the TNDA also responded:

*At first, it was adequate. But currently, because of transfers, we are short of staff with IT background. Now the policy is that once an officer spends four years in a particular DA, they will be transferred to another place. So that has in a way affected us negatively because, as it stands now, the Assembly has only one ICT officer (DA Staff TNDA, September 2022).*

This finding confirms the notion that MMDAs in Ghana lack the requisite human resource base for effective administration and development (Debrah, 2014; Gyaase, 2014; Ayee, 1992). This situation poses a serious challenge to the assemblies' digitalisation agenda.

Another revelation of the study in respect of ICT human resources is that despite the deficiencies in numbers, the staff available in all the DAs (AMA and TNDA, which had IT officers) had the requisite IT and managerial skills. All the DA officials interviewed in the two assemblies mentioned that all the staff in the IT units had the requisite qualifications and therefore had no problem when it comes to their competence. According to some of the officials interviewed, this situation stems from the fact that the old typewriters have currently been phased out of the system and replaced with stenographers who also come with good ICT skills.

*Oh yes, as for that one we have. Now the old typewriters have been phased out and replaced with stenographers who also come with good ICT skills; so now we don't have a problem when it comes to competence on the job (DA Official, September 2022).*

In relation to digitalised work, managerial and institutional processes, the data revealed that only a few units, departments and processes in all the DAs have been digitalised. The majority of departments, units and processes are still in the process of being digitalised. Consequently, the assemblies mostly resort to manual means of operation.

First, the study identified that all the assemblies had websites and social media accounts through which they engage residents and provide digitalised services. The website system, as was identified, is a requirement of the digitalisation Programme. For instance, we have [www.ama.gov.gh](http://www.ama.gov.gh) for the Accra Metropolitan Assembly, [www.tenda.gov.gh](http://www.tenda.gov.gh) for the Techiman North District Assembly and [www.nabda.gov.gh](http://www.nabda.gov.gh) for the Nabdam District Assembly. It was again identified that aside from the websites, some of the DAs studied had other social media accounts like Facebook and Twitter accounts through which they engaged residents. For instance, all the DAs studied have Facebook Accounts (search for Accra Metropolitan Assembly, Techiman North District Assembly and Nabdam District Assembly respectively). However, only the AMA has a Twitter Account (@AccraMetropolis). The study noted that these digital platforms play crucial roles as far as digitalisation of the DAs is concerned. They are the main digitalised platforms through which residents access digitalised services, participate in local governance, and hold their DAs accountable.

The study further highlighted that the assemblies had digitalised some managerial processes, departments and units. One digitalised process that was common to all the DAs under study is the Ghana Integrated Financial Management System (GIFMIS).

In the AMA and TNDA, the study revealed that some sections of the Client Service Unit and the Social Welfare units have been digitalised. These units are crucial as far

as service delivery is concerned. With this, customers can log on to the assemblies' website, pick the contacts of those departments and phone in to make enquiries on any issue without necessarily coming to the Assembly. Some of the officials interviewed also revealed that through these mediums, clients can remotely apply for support services without necessarily having to come to the assemblies.

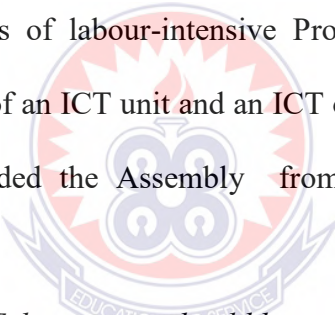
The study further revealed that the AMA and the TNDA have digitalised complaint management systems. The assemblies have designated special email services for receiving complaints from clients ([info@ama.gov.gh](mailto:info@ama.gov.gh) for the AMA; and [info@tenda.gov.gh](mailto:info@tenda.gov.gh) for the TNDA). Aside from the email systems, the assemblies have special units/departments (Public Relations Complaints Committee (PRCC) for AMA, and the Client Service Unit for the TNDA) for addressing citizens' complaints and general problems. Citizens can find the contacts of these units on the websites of the assemblies or directly lodge their complaints on the website through the complaint sections. It was also identified that the mail systems have been digitalised in both the AMA and the TNDA for managing documents the assemblies receive and those that the assemblies send out.

It was also identified that the AMA has partially digitalised waste management service application. Residents can download the forms from the Assembly's website, fill and submit to the Assembly personally.

It was also found that the majority of the units and departments within the assemblies were not fully digitalised. The assemblies are in the process of digitizing most of their departments and processes, such as the revenue mobilization unit, the management information system, etc. It is also worth stressing that most of the digitalised processes are for internal operations of the assemblies. Most of the services that the

assemblies directly deliver to the people have not been digitalised. Consequently, most services are delivered manually.

Another finding the study made is that not much has been achieved in the Nabdam DA in terms of digitalised managerial processes and departments. Contrary to the AMA and the TNDA, the Nabdam District has not digitalised its complaint management system or the mail system. The client service and social welfare units of the Assembly have also not been digitalised. The only processes that have been digitalised are the GIFMIS system and the electronic payroll management system (which are common to all DAs). The Assembly also uses an electronic payment system (e-switch system) to pay some of its clients, especially the School Feeding Caterers and beneficiaries of labour-intensive Programmes. Some of the officials complained that the lack of an ICT unit and an ICT official in the Assembly, coupled with other factors, impeded the Assembly from implementing more digitalised Programmes.



*Ideally, an IT department should be in charge of implementing such Programmes, but as I mentioned earlier, we don't even have a single IT staff, not to talk of an IT unit. So this has rendered the Assembly handicapped. We are not able to do much (DA Official, Nabdam District, September 2022)*

As a result, it was identified that the Nabdam District trails the AMA and TNDA in terms of digitalised work and managerial processes. The Assembly relatively resorts to manual means of operations.

#### **4.2 Impact of Digitalisation on Service Delivery**

Efficient and value-for-money service delivery has become a crucial component of the modern bureaucratic reform agenda. This is particularly crucial in local administration since local government units are at the forefront of local service

delivery. This section sought to ascertain the extent to which the digitalisation component of the reform has affected service delivery in the selected DAs. Questions asked in this section primarily centered on the extent to which the reform has been able to improve the service delivery capacities of the DAs under study to deliver more efficient and effective services. Two key findings were made in this respect. First, the study revealed that digitalisation has had a more positive impact on the internal managerial processes of the DAs than it has on service delivery. It was identified that digitalisation has introduced efficiency into internal managerial processes, improved transparency in service delivery and made the assemblies more accessible, yet, this has not translated into overall efficiency and effectiveness in service delivery. Secondly, digitalisation has had a disproportionate impact on the assemblies in terms of service delivery and internal managerial processes.

In respect of the impact on service delivery, the study identified that the digitalisation of the mail systems in both the AMA and the TNDA; and the GIFMIS and payroll systems in all the DAs have limited the paper system and introduced some level of efficiency in the operations of the DAs. Again, digitalised mail systems in both the AMA and the TNDA also meant that the assemblies' record management systems had been improved and strengthened. Some DA officials revealed that owing to these systems, files can be stored over a longer period and could be easily retrieved anytime they are required.

*As the saying goes, digitalisation means limited use of paper. So this has cut down the amount of paper we use in the Assembly . This also means that the Assembly can save to invest in other projects (DA Official, September 2022)*

*...Now our data/information management systems have been strengthened. With the digitalised mail system we are able to scan documents; capture who brought it; and the relevant*

*office the mail is going. It gives us all that information. So in case we lose/misplace the hard copy, we at least have a soft copy as a backup, and it makes retrieval of documents very easy (DA Staff, TNDA).*

The study further established that in some DAs (such as the TNDA), digitalised mail system has improved communication between the Assembly and major stakeholders of governance. Some DA officials and members of the CSOs interviewed in the district revealed that communication has been made easier thanks to digitalisation. Some CSO officials also mentioned that owing to the digitalised mail system, they can share files electronically with the Assembly and it would be formally recognized by the DA, which was not the case with the old system.

The study also revealed that digitalisation has broadened people's access to the assemblies, improved transparency in service delivery and introduced some level of speed in service delivery. Partially digitalised waste management system in the AMA and the social welfare unit in the TNDA meant that citizens could easily apply for services with some level of speed and convenience. Furthermore, the digitalisation of the Client Service and Social Welfare units in both the AMA and TNDA has made the assemblies more accessible to residents. Residents can now remotely contact the assemblies or make enquiries without necessarily going to the Assembly as was the case previously.

Again, personal observation and interviews with some officials in the AMA revealed that through the Assembly's website, people can read and acquaint themselves with the processes and the requirements involved with those services (including the fees involved) before they finally go to the Assembly to apply for them. This has introduced transparency in service delivery and limited the frustrations in the

application for services that characterized the old system due to residents' ignorance of the processes and requirements involved.

The impact of digitalisation on service delivery has been cogently summarized in the words of some residents' interviewed:

*I will say the quality of service delivery has generally improved. When there is an upcoming Programme/meeting, the registry department of the Assembly sends us letters not less than 14 days before the meeting (and 7 days for emergency meetings). Before the implementation of this digitalisation Programme, even the delivery person who dispatches our letters from the registry could come and wander around but would not be able to locate you and would consequently leave with your letter. But now before the hard copy reaches you, you would be sent a soft copy on your phone. So you would be able to read the letter even before the hard copy gets to you. Secondly, owing to this digital addressing system, the dispatcher can easily locate your house without having to ask anybody or call you for directions (Assembly member, September 2022).*

Some members of the CSOs interviewed also confirmed this revelation that communication with the Assembly has been relatively improved, albeit network challenges sometimes mar their experiences.

*Well, I can say to some extent, communicating with the Assembly has become easier, because now we can share files electronically among ourselves...and the system would recognise it officially, which wasn't the case previously...the only problem is the network challenges we encounter sometimes. So they should work on it (CSO member, September 2022).*

All these findings point to the fact that digitalisation has positively impacted the internal managerial processes of the assemblies and introduced some level of efficiency and effectiveness in their operations. This affirms the potency of digitalisation to reform, re-invent and modernize the quality of service delivery as



identified by scholars in the literature (Amatya, 2021; Ingrams et al. 2020; Aritonang, 2017; Chen et al., 2009).

The study further established that digitalisation's impact has been marginal and has not translated into overall efficiency and effectiveness in the services the assemblies directly deliver to the people. Digitalisation has had a more positive impact on the internal managerial processes of the assemblies than it has on the services they directly deliver to the people. This is because most of the services directly delivered by the assemblies have not been digitalised. Consequently, the assemblies deliver them manually. An analysis of the interviews with the CSOs, CBOs and Assembly Members points to this. The majority (12 out of 21) of them believed that digitalisation has not introduced efficiency and effectiveness into the service delivery capacities of the assemblies because the mode in which most of these services are delivered has not changed. It is interesting to note that even though some informants acknowledge that, like the global order, local services have become of higher quality over time, they are unable to attribute this improvement to digitalisation because these services are still accessed manually.

*The world in general keeps improving and so services have improved over the years. But I cannot say it is because of digitalisation because most of these services are still delivered manually (CBO member, September 2022)*

An earlier interview with an official of one of the DAs also affirms this position. Even though he conceded that digitalisation has significantly improved the internal managerial operations of the Assembly, he was sceptical about its impact on service delivery.

*...So efficiency in internal managerial processes, yes! But in service delivery, I don't see any direct impact, because like I said, most of our services have not been fully digitalised yet.*



*We are hoping that by next year, we would have finished the process so that citizens can enjoy these services with ease (DA Official, September 2022)*

The finding above confirms Mahlangu and Ruhode's (2021) finding that most government services in Africa are still not available online and that most of these services are delivered manually.

The study also observed that even where certain services had been (partially) digitalised, the lack of publicity on the part of the assemblies also meant that most residents were not aware of such services and still resorted to manual means of accessing them.

*The challenge is that publicity is very low so most people are not aware of these services and therefore access them manually. Because as it stands, when you want to apply for waste management services, you can go download a form from our website, fill it and submit it here. But people are not aware, so they come here to start the whole process (DA Official, September 2022).*

This confirms the World Bank Group's (2019a) finding that the majority of Ghanaians are not aware that e-government services exist. It can also be gleaned from the finding above that residents' lack of awareness largely stems from low publicity on the part of the assemblies. This confirms the argument that citizens are mostly ignorant of e-government services in Ghana because governments do not pay much attention to creating citizens' awareness of such services (Dagba et al's 2018; UNDP, 2018).

Another finding the study made is in relation to the fact that digitalisation has had a disproportionate impact on the service delivery capacities of the DAs. The study noted that digitalisation has had a more positive impact on service delivery in the AMA and TNDA (albeit marginal), than in the Nabdam DA. Unlike the AMA and the TNDA, almost none of the services, departments and processes of the Nabdam

DA had been digitalised. As a result, the Nabdam DA relatively resorts to manual processes of operations; hence most of the services are delivered manually. Interestingly, unlike the other DAs, the Nabdam DA had not initiated any process of digitizing most of its services.

*No, we have not started any process yet. Ours is purely on a physical basis. You come to the Assembly if you need anything (DA Official, Nabdam District)*

### **4.3. Impact of Digitalisation on Social Accountability Mechanisms**

Social accountability has become the driving force behind most contemporary administrative reforms. It is the means by which public administrators manage the many expectations of the public. This is particularly crucial in local administration since one of the ultimate goals of decentralization is participation at the grassroots level. Residents' participation in local decision-making guarantees that governments address the genuine concerns of citizens and minimizes the likelihood that governments would spend money on unnecessary Programmes and initiatives. An analysis of the data revealed that digitalisation has positively impacted local accountability mechanisms in the selected DAs, albeit marginal.

The study revealed that the website system—introduced as part of the requirements for digitalisation—has introduced some level of transparency, participation and accountability in the activities of the DAs. Through these platforms, citizens get updated on key issues and current happenings in their districts. The study revealed that the Assemblies' budget for the year, financial reports, some major projects undertaken by the assemblies, MMDCE's visitations and Programmes that the assemblies organise among others are all posted on the platforms so that citizens will be updated on current happenings.

*...A lot of information goes out there for social accountability purposes through our website and other social media accounts. Every year, we publish our budget, our action plans, procurement plans and even our audit reports... So now we are able to account to the people on how some revenues are expended... We also publish some major projects and activities of the Assembly, including DCE's engagement with the people so that people can see them... (DA Official, September 2022).*

The study also revealed that aside from getting to know issues affecting them, residents can also contribute to governance through these online platforms by commenting on the posts through the comments sections. Residents can also call, or officially write to the assemblies through emails, postal address systems and phone numbers published on the assemblies' websites.

The study further identified that in the AMA and the TNDA, digitalised complaints management systems have strengthened social accountability mechanisms. These systems offer citizens digitalised avenues to participate in governance, hold the assemblies accountable, and seek redress on issues affecting them.

*Unlike previously when distance and time factors could discourage people from coming to the Assembly to lodge complaints on issues affecting them, now they can do it just with a click of a button and from the comfort of their homes. Again, this also means that more people now have the platform to participate in governance and hold the Assembly accountable with little or no stress. This was not the case previously (DA Official, September 2022).*

An analysis of the websites of the AMA and the TNDA affirms this finding. It was identified that some of these complaints are published on the assemblies' websites (in the 'Documents' section for the AMA and the 'downloads' section for the TNDA) for local accountability purposes. This is, however, not the case with the Nabdam District Assembly, since the Assembly has not digitalised its complaint management system.

Digitalisation's impact on social accountability is cogently summarized in the words of a CSO member interviewed:

*I think information is now more accessible than previously, thanks to the website system...also, now people have become more alert that there is a third eye somewhere watching them remotely. So they would not resort to foul means in the course of performing their official duties. In other words, digitalisation has promoted transparency in the businesses of the Assembly. That is one advantage associated with it...*

(CSO member, September 2022)

All these revelations point to the fact that digitalisation has improved social accountability mechanisms in the DAs. This confirms the argument that the usage of ICTs increases the potential for grassroots individuals to participate in government (Fechter & Schwittay, 2019).

A major challenge the study unearthed in relation to digitalisation's impact on social accountability is that residents' patronage of the assemblies' websites and social media platforms is generally low in all the DAs. The study found certain factors underlying the low patronage. The first is that most people including Assembly Members and CSOs are not aware of these platforms. Out of the total number (21) of the CSOs, CBOs, and Assembly Members interviewed, the majority (11) were not aware of the website or any social media account operated by their DAs. This finding confirms the worry expressed by a DA official interviewed:

*In terms of patronage, it is very poor...Even our Assembly Members, who are key stakeholders in the Assembly, do not patronize the website; so if you have any upcoming event and you put it on the website, it will not get to the people. You still have to move to the communities...(DA Official, September 2022)*

This situation is very worrisome because if CSOs, CBOs and even Assembly Members who are supposed to be major stakeholders of local government are not aware of such platforms, then one can only imagine the level of awareness among the ordinary residents. This revelation also confirms the finding that the majority of Ghanaians are ignorant of the existence of e-government services (World Bank Group, 2019a; Dagba et al, 2018; UNDP, 2018).

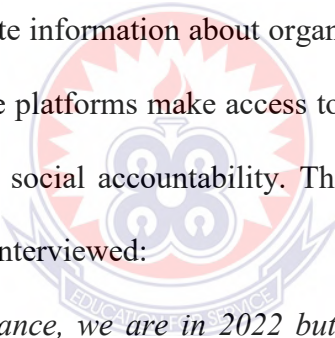
Apart from the lack of awareness, another factor for the low patronage also stems from the demographic characteristics of some district residents. According to some officials interviewed, the high rate of illiteracy among residents hindered people's ability to access these websites.

*Illiteracy is a big challenge. You know this computerized system of doing things demands that people can read and write. So people who cannot read and write cannot use the system; or it becomes difficult for them to use it (DA Official, September 2022)*

Another major challenge to social accountability is that these online platforms are not frequently updated by some of the assemblies. An analysis of the websites of the three assemblies (as of 12:16 am, on October 19 2022, the time of this analysis) reveals that the TNDA's website had not been updated for almost three months. The Assembly's most recent post was on July 27, 2022. The Nabdam DA on the other hand had not also updated its website for close to two weeks. The Assembly's last update was on 8th October, 2022. Moreover, in terms of publishing budgets, it was identified that aside from the TNDA, none of the other assemblies had updated its website with the current fiscal year's budget (2022 budget). The most recent budget that had been posted on the Nabdam DA's website is the 2020 fiscal year's budget; while that of the AMA is the 2021 fiscal year's budget. The same challenge was identified with an

analysis of the Facebook platforms of the DAs. A study of the Facebook accounts of the assemblies also follows a common trend. Apart from the AMA, whose Facebook platform had up-to-date information, the most recent post of the Nabdam DA (as at 12:16am, 19th October, 2022, the time of this analysis) was 23rd April, 2020. Meaning the platform had not been updated for over two years. Similarly, the most recent post of the TNDA was 6th March, 2021, which also means the platform, had not been updated for over a year.

In his analysis of the implementation of e-government services in Indonesia, Aritonang (2017) made a common revelation that in most cases, data and information were not updated periodically on many local government websites, hence, these websites contained obsolete information about organisations' structure and events etc. The delays in updating the platforms make access to vital information difficult and in a long run, go to hamper social accountability. This is cogently summarized in the words of a CSO member interviewed:



*...so for instance, we are in 2022 but as it stands, even the 2021 budget has not been uploaded on the [Nabdam DA's] website. The latest budget that has been posted is the 2020 budget. So where are the transparency and accountability?...  
(CSO member, September 2022)*

The situation is quite worrisome because these platforms are the only digitalised avenues for ordinary residents and stakeholders to participate in local governance and hold their assemblies accountable. Delays in updating them, therefore, have negative implications for social accountability.

#### 4.4. Challenges to Reform Implementation

This section addresses the fourth objective of the study. The objective sought to explore the challenges facing the DAs in the implementation of the digitalisation reform. An analysis of the data revealed that a host of challenges facing the assemblies hampers their digitalisation drive. Some of these challenges are discussed in this section.

##### 4.4.1 Financial Challenges

Financial challenge was identified to be one of the biggest challenges facing all the DAs as far as the implementation of the reform is concerned. Some of the officials indicated that for the Programme to succeed, there is the need to implement more digitalised Programmes, increase sensitization among the people; purchase up-to-date computers and all the necessary hardware and software among others. However, all these come with huge financial requirements, which the assemblies are currently lacking. The quotes below capture this challenge.

*We have proposed so many Programmes to the Assembly but the funds to push them wholesale are not forthcoming. So we are doing it gradually as and when they are released to us (DA Official, September 2022).*

Another DA official also related:

*Sometimes we can run out of data in a quarter, but we wouldn't have the revenue to buy the data to ensure the smooth running of administration. We also require finances to update our software and fix broken-down gadgets and IT equipment. As we are talking, my desktop is down, so my assistants cannot work. And because we don't have money, how to even acquire laptops is another problem. Now there is only one desktop for four assistants, so you give them work and they have to take turns, which is not the best (DA Official, September 2022).*



All these reflect the financial challenges facing the assemblies as far as the implementation of the reform is concerned. The quotes above also reveal that the enormous financial challenges facing the DAs impeded their ability to roll out more digitalised Programmes. This in a long run negatively affected the assemblies' digitalisation drive. This finding confirms the argument that financial challenge is one of the greatest setbacks to the implementation of most digitalisation projects in developing countries (Albukhitan, 2020; Kern et al., 2020; Dagba et al., 2018). It also confirms what scholars have identified in the literature that MMDAs in Ghana lack the requisite financial muscle for effective local administration and development (Gumede et al 2019; Debrah, 2014; Boschmann, 2009).

#### **4.4.2 Residents' Low Patronage of Digitalised Programmes**

Generally, citizens' patronage of digitalised Programmes of the assemblies is very low. The majority of the officials interviewed complained about this challenge. Moreover, an analysis of the Facebook accounts of all the DAs confirms this worry. Out of a population of 284,124 (GSS, 2021), the AMA only has 39, 027 followers, representing a percentage of 13. 7%. The TNDA on the other hand has 1, 088 followers out of a total population of 102,529 (GSS, 2021), also representing a percentage of 1.1%; While the Nabdam District has 1, 657 followers out of a total population of 51,861 (GSS, 2021), also representing a percentage of 3.2%. Similarly, an analysis of citizens' reactions to the last five posts also follows a common trend.



**Table 3: Residents’ reactions to the last five posts of respective DAs as at 12:16 am-12:30 am, 19th October, 2022.**

| District       | Post S/N     | Post Date  | Number of Likes | Number of Comments | Number of Shares |
|----------------|--------------|------------|-----------------|--------------------|------------------|
| Accra          | 1            | 18-10-2022 | 17              | 0                  | 3                |
| Metropolitan   | 2            | 18-10-2022 | 7               | 0                  | 0                |
| Assembly       | 3            | 18-10-2022 | 3               | 1                  | 0                |
|                | 4            | 18-10-2022 | 0               | 0                  | 6                |
|                | 5            | 18-10-2022 | 5               | 0                  | 1                |
|                | <b>Total</b> |            | <b>32</b>       | <b>1</b>           | <b>10</b>        |
| Techiman       | 1            | 06-03-2021 | 4               | 0                  | 0                |
| North District | 2            | 31-10-2020 | 7               | 0                  | 1                |
| Assembly       | 3            | 12-09-2020 | 5               | 0                  | 0                |
|                | 4            | 27-08-2020 | 9               | 0                  | 0                |
|                | 5            | 27-08-2020 | 3               | 0                  | 0                |
|                | <b>Total</b> |            | <b>28</b>       | <b>0</b>           | <b>1</b>         |
| Nabdam         | 1            | 23-04-2020 | 28              | 1                  | 0                |
| District       | 2            | 08-04-2020 | 17              | 0                  | 0                |
| Assembly       | 3            | 08-04-2020 | 20              | 0                  | 0                |
|                | 4            | 08-04-2020 | 18              | 1                  | 0                |
|                | 5            | 06-04-2020 | 7               | 0                  | 0                |
|                | <b>Total</b> |            | <b>90</b>       | <b>2</b>           | <b>0</b>         |

**(Source: facebook.com, 12:16am, 19th October, 2022)**

*(N/B: All these conclusions were drawn on the assumption that all the followers hail or reside within the jurisdictions of the respective DAs. There is a high chance that some do not reside in the respective DAs, which case, worsens the situation. Secondly, this analysis was done between 12:16 am and 12:30 am on 19th October 2022. The figures quoted in this analysis can therefore only be tied to this period. Moreover, Facebook was specifically chosen because aside from the website, it is the only social media platform that is common to all the DAs). It is also instructive to pay attention to the dates attached to the posts and the time taken by the assemblies to achieve these results for proper analysis.*

It can be gleaned from table 3 that with all the last five posts combined, the AMA has a total of thirty-two (32) likes, one (1) comment and ten (10) shares. The TNDA on the other hand has a total of 28 likes, zero (0) comments, and one (1) share; while the Nabdam District has a total of ninety (90) likes, two (2) comments, and zero (0) shares.

The study identified that the low patronage mainly stems from the fact that social accountability mechanisms were not imbibed in the reform due to the top-down approach to implementation the Programme assumed. Hence the local people and major stakeholders were neither informed of the Programme nor had any role to play in its implementation. Out of the fifteen (15) civil society organisations and CBOs interviewed, only 4 of them were aware of the ongoing Programme in their respective districts. However, none of them had any role to play in its implementation. The majority (11) of them were neither informed of the ongoing Programme, nor had any role to play in its implementation. The study also revealed that the assemblies failed to increase sensitization and publicity of the ongoing Programme in their districts partly due to financial challenges. Besides, even though all the Assembly Members admitted they were informed of the ongoing Programme in their districts, they failed to create awareness among their people. Consequently, residents' awareness of the ongoing Programme in the districts is very low and this reflected in the low patronage of online Programmes. This confirms a UNDP study that the lack of citizens' engagement during the process of digital governance project implementation mostly underlies their ignorance of the services provided through these digital governance platforms. The study also observed that there is mostly a lack of a clear framework that can lead to high participation in decision-making processes (UNDP, 2018).

#### 4.4.3 Local context, an underrated determinant of Programme outcomes

The study identified context as a major determinant of reform outcomes, but it is one thing that was overly underrated by policymakers in the whole implementation process. The study established that the extremely unfavourable technological, organisational and environmental contexts within which some of the assemblies (especially the Nabdam DA) operate posed significant hurdles to the implementation of the Programme. First, the lack of an ICT unit and an ICT official in the Nabdam DA impeded the Assembly 's ability to implement more digitalised Programmes. Second, due to the DA's entirely rural nature, there are extremely low levels of (ICT) literacy among most residents. Moreover, poverty among the people is high. This coupled with poor infrastructure and issues of the digital divide among others, either prevented the Assembly from digitalizing or impeded people's ability to access digitalised platforms.

For instance, the extremely poor demographic characteristics of the district residents discouraged the Nabdam DA from implementing more digitalised Programmes because they saw no use in digitalising when the intended end users could not access them.

*So, as you know, this is predominantly a farming community, and most people here are not IT literate. Again most of them use 'yam phones.' So if you say you are providing services online, then it means you are cutting a whole chunk of the population off. You are not improving their livelihoods but rather blocking people's access to these services (DA Official, Nabdam District).*

Another DA official also related:

*...what is the use of digitalizing when the people who are supposed to use cannot access them? (DA Official, Nabdam District)*

Furthermore, it was identified that local contexts were major factors underlying the litany of the financial challenges facing some DAs. Some officials interviewed in the Nabdam DA mentioned that because the district is entirely rural, there are limited economic activities which affect the Assembly's ability to mobilize revenue. Moreover, the number of properties in the district is limited compared to DAs situated in urban districts. All these affect the Assembly 's internal revenue mobilization capacity.

*So for those of us in the rural districts, one major challenge is that we are not able to generate enough revenue locally due to the fact that there are limited economic activities in the district. So the taxes, fees and fines do not come to the Assembly that much. Again, in terms of property rate, you also realise that the Assembly is not able to rake in enough revenue due to the limited number of properties in the district (DA Staff, Nabdam District).*

A common finding was made in the TNDA. Some officials interviewed complained that because the district was carved out of the Techiman Municipal Assembly, which is just a few minutes' drive away, the majority of the residents prefer to go to the Municipal to transact business. This affects the TNDA's revenue mobilization capacity.

*Trust me the district is suffering when it comes to finances, especially since we were carved out of the Techiman Municipality, which is also just five to ten minutes drive away, most people would rather go to Techiman to transact business than to do it here. So this affects us a lot in terms of finances (DA Official, TNDA).*

All these revelations reflect how local context affected the implementation of digitalisation in some DAs. This finding underscores the argument advanced by Tornatzky and Fleisher (1990) in the TOE model that the technological, organisational and environmental contexts of organisations have a direct impact on

their ability to adopt and implement new technologies. The findings also underscore the need to imbibe social accountability mechanisms in the initiation and implementation of reforms so that certain structural and institutional pitfalls that are likely to mar implementation can be identified early and resolved before implementation.

#### **4.4.4 Lack of local leadership and support**

Another challenge that was identified is that in some DAs, the required leadership to champion the course and ensure that the reform succeeds is lacking. This is because some of them either do not understand and appreciate the goals the Programme seeks to achieve, or do not appreciate the benefits of technology at all, and therefore, are reluctant in channeling resources to the ICT departments of their assemblies especially considering the enormous financial challenges facing most of the DAs.

This is what an official of one of the DAs under study had to say:

*Changing the dynamics has been very difficult...we are in an environment where most people do not appreciate the benefits of digitizing systems. Most of the older folks especially within the system do not want to get abreast with technology. So sometimes, approving finances for this department becomes a challenge (DA Official, September 2022).*

This finding acquiesces with Mpinganjira's (2013) finding in her assessment of e-government projects in South Africa that the lack of leadership and commitment at all levels of government is one of the most serious constraints to E-government diffusion in Africa.

#### **4.4.5 Infrastructural challenges**

Poor infrastructure in some of the DAs, reflecting in poor network connectivity also posed significant hurdles to the implementation of the Programme. All the staff of the

DAs interviewed complained that poor network connectivity sometimes frustrates and slows down work. In the AMA, it was identified that even though the needed infrastructure existed relative to other DAs, high population density and overcrowding sometimes caused the network connectivity to jam up in some areas, thereby interrupting the operations of the Assembly. The study further revealed that infrastructure challenge was a major setback to the Nabdam DA due to the local context within which the Assembly, operates. Unlike the AMA and TNDA which have alternative telecommunications to choose from, the Nabdam DA had only two options (MTN or Airtel Tigo). Consequently, in cases where these networks are not functioning, it tends to frustrate the operations of the Assembly .

*...in most of the rural areas, it is either MTN that is working well or Airtel Tigo. And so if they happen to have any challenge, then it means work must also stop... so for assemblies in rural districts like ours, the major challenge is network. At times they can send you an official document which needs to be brought to the attention of another officer and you are just struggling to download it...So network challenges alone make the system so slow and frustrating at times (DA Official Nabdam District).*

The study further revealed that the extremely poor network connectivity in the district thwarted the Assembly 's effort to digitalise some Programmes. Responding to why the Nabdam DA had not digitalised its complaints management system, a DA official responded.

*We tried using the emails to do that [digitalise complaints management system] but it didn't work. People didn't patronize it because of network issues. So we went back to the old system. So that is what we are using now (DA Official, Nabdam District)*

This finding confirms the argument put forward by Mahlangu and Ruhode (2021) that the lack of infrastructure hinders the delivery of e-government services in two main

ways: First, by acting as an obstruction for government departments and agencies to provide e-services; and second, by obstructing the demand for e-government services by frustrating citizens' access to e-government services. Similarly, Dagba, et al (2018) established that in most cases, the unwillingness on the part of citizens to patronise the government's digitalised services is due to the initial frustrations that characterize most of the government's digitalisation initiatives in Ghana.

Aside from poor network connectivity, another infrastructure-related challenge that was identified is the issue of outdated and old-fashioned technologies and the lack of ICT units in some DAs. In all the DAs studied, it was identified that even though some technologies existed, the majority of them were outdated and not functioning with the required speed. Again, an ICT unit, a prerequisite to digitalisation is lacking in the Nabdam DA. All these problems affect the assemblies' ability to digitalise.

#### **4.4.6 Human Resource Challenges**

The study again identified that human resource deficits pose serious challenges to some of the DAs. In the Nabdam DA and the TNDA, the required number of staff with the requisite ICT skills to man the course of implementation is either lacking or not enough. The study revealed in the TNDA that transfers and reposting have dwindled the Assembly's number of ICT staff, leaving the Assembly with only one ICT officer. The situation is worse with the Nabdam DA which did not have a single ICT officer or an IT unit. This confirms the finding that MMDAs lack the requisite human resource base for effective administration (Gyaase, 2014; Ayee, 1992). This also affected the Nabdam DA's ability to implement digitalised Programmes.

*Ideally, an IT department should be in charge of implementing such digitalised Programmes, but as I mentioned earlier, we don't even have a single IT staff, not to talk of an IT unit. So*



*this has rendered the Assembly handicapped. We are not able to do much as far as digitalisation is concerned (DA staff, Nabdam District)*

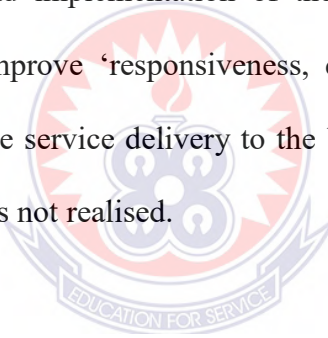
As a result of all these factors, the study noted that the Nabdam DA was the least digitalised among all the DAs in respect of services, departments and internal processes. This supports the assumption of the TOE theory that the characteristics and resources of an organisation including human resources available determine its ability to digitalise (Tornatzky & Fleisher, 1990).

#### **4.5 Conclusion**

This chapter offered practical insights into how the implementation of the National Public Sector Reform Strategy (2018-2023) has fared in the AMA, TNDA, and the Nabdam DA. The study revealed three key issues. First, all the assemblies have attained some minimal level of digitalisation in terms of technology, human resources and organisational processes. Secondly despite its positive impact on internal managerial processes, the reform has not been effective at transforming the quality of local service delivery and social accountability mechanisms in all the DAs, due to certain challenges bedeviling the assemblies. Thirdly, the study also reveals disparities between the DAs in terms of reform outcomes. The reform has relatively improved the service delivery capacities of the AMA and the TNDA but has had a relatively insignificant (little or no impact at all) impact on the Nabdam DA. This is because among all the DAs studied, the Nabdam DA is the least digitalised in terms of technology, human resources and processes. The Assembly therefore relatively resorts to manual means of doing most things. The results signify the importance of local context to reform outcomes. While local contexts affected all the DAs under study, the excessively poor local conditions in the Nabdam District hampered the Assembly's ability to roll out certain digitalised Programmes. The implications of the study are



inherent in the dominant results obtained from the analyses. A key implication is that local contexts within which organisations operate are relative, and they directly or indirectly affect how organisations function. To ensure reform success, therefore, it is imperative that policymakers pay attention to these unique contexts and tailor policies to meet them. This goes back to enforcing the importance of imbuing social accountability mechanisms in reforms. Extensive consultations and stakeholder engagements at the early stages of reform are crucial for reform success. This strengthens policy design, promotes community ownership, and ensures that certain structural and institutional pitfalls that could mar reform success are identified and dealt with earlier, before implementation. However, because this key factor was missing in the design and implementation of the reform, the main thrust of the strategy which was to improve 'responsiveness, quality and adaptability for both qualitative and quantitative service delivery to the benefit of citizens and the private sector' (GoG, 2017: 5) was not realised.



## CHAPTER FIVE

### SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

#### 5.0 Introduction

This chapter presents a summary of the research findings and the conclusions drawn based on these findings. The final part makes recommendations based on the research findings.

#### 5.1 Summary of Major Findings

This study investigated the impact of NPSRS (2018–2023) on local governance in the AMA, TNDA, and Nabdam DA. It focused primarily on the extent to which the digitalisation component imbibed in the reform has affected local service delivery and social accountability mechanisms in the selected DAs. The study answers four key questions. (1) To what extent have the MMDAs under study been digitalised? (2) How has digitalisation affected local service delivery in the MMDAs under study? (3) How has digitalisation worked to promote local participation, transparency and accountability in the MMDAs under study? (4) What are the challenges to the implementation of digitalisation in the MMDAs under study?

##### 5.1.1 The extent of Digitalisation of Selected MMDAs

The following are the key findings from the study:

1. All the assemblies have attained some minimal level of digitalisation in terms of technology, human resources and processes. With respect to technology, the study identified that digital infrastructure, which is a prerequisite condition for digitalisation is either lacking or obsolete in most DAs. The data gathered revealed that some assemblies (such as the Nabdam DA) have no ICT unit, which is a key factor for digitalisation. The study further revealed that all the

DAs had some form of technology and assistive ICT equipment requisite for digitalisation. However, most of these technologies are either non-functional or outdated and not functioning at full capacity. All these factors posed significant challenges to implementation.

2. Concerning human resources with the requisite ICT and managerial skills, the outcomes varied from one DA to another. The data gathered revealed that the AMA has a full IT unit with more than the required number of staff with requisite IT and managerial skills. Conversely, serious human resource deficits were highlighted in the TNDA and the Nabdam District. In the TNDA, the study revealed that transfers and reposting have dwindled the Assembly's number of ICT staff, leaving the Assembly with only one ICT officer. The situation is worse in the Naddan district, which has no IT officer. It is worth stressing that despite the deficiencies in numbers, the staff available in all the DAs (which had IT officers) had the requisite ICT skills and qualifications. The assemblies therefore had no problem when it comes to their competence.
3. In relation to digitalised work, managerial and institutional processes, the study revealed that only a few units, departments and processes in all the DAs have been digitalised. The majority of departments, units and processes are still in the process of being digitalised. Consequently, the assemblies mostly resort to manual means of operation. Comparatively, the study identified that the Nabdam DA trails the AMA and TNDA in all aspects of digitalised work and managerial processes. Contrary to the AMA and the TNDA, the Nabdam District has not digitalised most of its departments and Programmes. As a result, the Assembly generally resorts to manual means of operation.

### 5.1.2 Impact of Digitalisation on Service Delivery

In relation to the impact of digitalisation on service delivery, two key findings were made:

1. The study revealed that digitalisation has had a more positive impact on the internal managerial processes of the DAs than it has on service delivery. The digitalisation of certain Programmes and units—such as the mail system, the GIFMIS and payroll systems, and the client service and social welfare units, among others—has introduced some level of efficiency in the operations of the DAs; broadened people's access to the assemblies, improved transparency in service delivery, and introduced some level of convenience in access to certain services in some DAs, but this has not translated into overall efficiency and effectiveness in service delivery. This is because most of the services directly delivered by the assemblies have still not been digitalised. Consequently, the assemblies delivered them manually. Moreover, even where certain digitalised services existed, lack of publicity on the part of the assemblies also meant that residents were not aware of such services and continued to access them manually.
2. The study further revealed that digitalisation has had a disproportionate impact on the assemblies in terms of service delivery and internal managerial processes. It was identified that digitalisation has had a more positive impact on the AMA and TNDA (albeit marginal) than the Nabdam DA. Unlike the AMA and the TNDA, almost none of the services, departments and processes of the Nabdam DA had been digitalised. As a result, the Nabdam DA relies on manual operations processes. The study noted that unlike the other DAs, the Nabdam DA had not initiated any process of digitizing most of its services.

### 5.1.3 Impact of Digitalisation on Social Accountability Mechanisms

1. An analysis of the data revealed that digitalisation has positively impacted (or at least, provided avenues for) local accountability in the selected DAs. The study highlighted that digitalisation has introduced some level of transparency, participation and accountability in the activities of the DAs. Through the assemblies' websites and other social media platforms, citizens get updated on key issues and happenings in their districts. Furthermore, the assemblies' budget for the year, financial reports, some major projects they undertake, MMDCE's visitations and Programmes that the assemblies organise among others are all posted on the platforms so that citizens will be updated on current happenings. Residents can also contribute to governance through these online platforms by commenting on the posts in the comment sections. In addition, residents can contact the assemblies via email, postal address systems, and phone numbers listed on the assemblies' websites. This as a result has significantly improved social accountability in the DAs. The study further highlighted that digitalised complaints management systems in some DAs (such as the AMA and the TNDA) have strengthened social accountability mechanisms. These systems offer citizens digitalised avenues to participate in governance, hold the assemblies accountable, and seek redress on issues affecting them.
2. The study highlighted that patronage of the assemblies' websites and social media platforms is generally low in all the DAs. Most people including Assembly Members and CSOs are not aware of these platforms. Out of the total number (21) of the CSOs, CBOs, and Assembly Members interviewed, the majority (11) were not aware of the website or any social

media account operated by their DAs. Aside from the lack of awareness, the high rate of illiteracy among residents also hindered people's ability to access these websites. Consequently, patronage of the online platforms of the assemblies was very low.

3. The study further revealed that these online platforms are not frequently updated by the assemblies. The delays in updating the platforms, therefore, make access to vital information difficult and in the long run, hamper social accountability.

#### **5.1.4 Challenges to Reform Implementation**

1. Financial challenge was identified as one of the biggest challenges facing all the DAs as far as the implementation of the reform is concerned. It was identified that the enormity of financial challenges facing some of the DAs hampered their ability to roll out more digitalised Programmes. This in a long run negatively affected implementation. It was identified that local contexts were major factors underlying the litany of the financial challenges facing some DAs. For instance, the study identified that because the TNDA was carved out of the Techiman Municipal Assembly, which is just a few minutes' drive away, the majority of the residents preferred to go to the Municipal Assembly to transact business. Again, due to the rural nature of the Nabdam DA, there are limited economic activities and properties in the DA. These factors, therefore, affect the assemblies' revenue mobilization capacity.
2. Generally, citizens' patronage of digitalised Programmes of the assemblies is very low. The majority of the officials interviewed complained about this challenge. Moreover, an analysis of the Facebook accounts of all the

DAs confirms this worry. The study identified that the low patronage mainly stems from the fact that social accountability mechanisms were not imbibed in the reform due to the top-down approach to implementation the Programme assumed. Hence the local people and major stakeholders were neither informed of the Programme nor had any role to play in its implementation. The study also revealed that the assemblies failed to increase sensitization and publicity of the ongoing Programme in their districts partly due to financial challenges. Besides, even though all the Assembly Members admitted they were informed of the ongoing Programme in their districts, they failed to create awareness among their people. Consequently, residents' awareness of the ongoing Programme in the districts was very low, and this was reflected in the low patronage of online Programmes. Aside from this, other factors such as low (ICT) literacy among the people and the issues of the digital divide also impeded people's ability to access digitalised Programmes.

3. Context was a major determinant of reform outcomes but it is one thing that was overly underrated by policymakers in the whole implementation process. The study established that the extremely unfavourable technological, organisational and environmental contexts within which some of the assemblies operate posed significant hurdles to the implementation of the Programme. For instance, the lack of an ICT unit and ICT official in the Nabdam DA impeded the Assembly 's ability to implement more digitalised Programmes. Second, due to the DA's entirely rural nature, there are extremely low levels of (ICT) literacy among most residents. Moreover, poverty among the people is high. This coupled with

poor infrastructure and issues of the digital divide among others, either prevented the Assembly from digitalizing or impeded people's ability to access digitalised platforms.

4. In some DAs, it was identified that the committed local leadership needed to champion the course and ensure that the reform succeeded was lacking. This is because some of them either did not understand and appreciate the goals the Programme seeks to achieve, or did not appreciate the benefits of technology at all, and therefore, were reluctant in channeling resources to the ICT departments of their assemblies especially considering the enormity of the financial challenges facing the assemblies.
5. Poor infrastructure in some of the DAs, reflecting in poor network connectivity, also posed significant hurdles to the implementation of the Programme. The study further revealed that even though the infrastructure challenge generally affected all the assemblies, it was a major setback to the Nabdam DA due to the local context within which the Assembly operates. Unlike the AMA and TNDA which have alternative telecommunications to choose from, the Nabdam DA had only two options (MTN or Airtel Tigo). Consequently, in cases where these networks are not functioning, it tends to frustrate the operations of the Assembly. Aside from poor network connectivity, another infrastructure-related challenge that was identified is the issue of outdated and old-fashioned technologies and the lack of ICT units in some DAs.
6. The study again identified that human resource deficits pose serious challenges to some of the DAs. In the Nabdam DA and the TNDA, the required number of staff with the requisite ICT skills to foster



implementation is either lacking or not enough. The study revealed in the TNDA that transfers and reposting have dwindled the Assembly's number of ICT staff, leaving the Assembly with only one ICT officer. The Nabdam DA on the other hand did not have a single ICT officer.

## 5.2 Conclusions

This study offers practical insights into how the implementation of the National Public Sector Reform Strategy (2018-2023) has fared in the AMA, TNDA, and the Nabdam DA. It specifically sheds light on the extent to which the digitalisation component of the reform has impacted local service delivery and affected social accountability mechanisms in the selected DAs. The study made three key findings: First, all the assemblies have attained some minimal level of digitalisation in terms of technology, human resources and organisational processes. Secondly, digitalisation has had a more positive impact on the internal managerial processes of the DAs than on service delivery. Despite some progress made, the reform has not been effective at transforming the quality of local service delivery and social accountability mechanisms in all the DAs studied. This is primarily because certain prerequisites for digitalisation are still lacking in most of the assemblies. Thirdly, digitalisation has had a disproportionate impact on the operations of the DAs. The excessively unfavourable technological, organisational and environmental context of the Nabdam DA affected the Assembly's ability to roll out more digitalised Programmes. Consequently, the Nabdam DA is the least digitalised and relatively resorts to manual processes for doing most things. The Ghanaian context has rather demonstrated that certain key variables—such as improving ICT infrastructure; securing political and administrative leadership commitment at all levels of government; as well as taking into account the technological, organisational and environmental contexts within which MMDAs

operate, among others—are instrumental for the successful implementation of digitalisation Programme. Changing the dynamics, therefore, requires creating an enabling environment for digitalisation to succeed in all settings. There should be a concerted effort by policymakers to ensure uniformity in Programme outcomes. The tendency should now be a more inward-looking approach and the utilisation of solutions that are adapted to the contexts of the DAs. This includes paying close attention to the unique technological, organisational and environmental contexts of the DAs as postulated by the TOE theory; and tailoring policies to meet them. Again, this goes to reinforce the need for social accountability mechanisms in the design and implementation of reforms.

### **5.3 Recommendations**

The following recommendations have been made based on the findings of the study. Considering the fact that the reform is still ongoing, these recommendations are expected to provide both corrective measures to actors of the current Programme; and guidelines to policymakers who undertake similar Programmes in the future.

1. First, there is a need to improve infrastructure to make the internet more accessible. Digitalisation goes with strong internet access and connectivity. Despite the government's investment in ICT infrastructure over the years, there are still more vulnerable communities in the country without stable internet access. Also, in the urban centres where these infrastructures exist, overpopulation and overcrowding sometimes put pressure on them, thereby making internet connectivity unstable. Therefore, the government should increase investment in this area to make internet connectivity more stable and accessible.

2. The second recommendation centres on financial support. To ensure Programme success, there is the need for the assemblies to implement more digitalised Programmes, purchase the needed software and hardware, increase community awareness, and sensitize the people on the need for digitalisation among others. All these come with huge financial requirements. Therefore, considering the enormity of the financial challenges facing the DAs, Government should channel more resources to cushion the assemblies to foster implementation.
3. Digitalisation requires a commitment of resources and reengineering government work processes. All these cannot be possible without committed leaders who understand the benefits of digitalisation and are willing to ensure that such projects succeed. To ensure this, digitalisation should be incorporated into mainstream activities of the MMDAs and consequently, into the Local Government Service Performance Management System (PMS). There should be clear, quantifiable targets using agreed objectives and indicators for the attainment of goals within a given time frame. For instance, if such targets are incorporated in the Performance Management Contracts (PMCs) DCEs sign with Regional Ministers and those that Regional Ministers sign with the executive head (president), it will put pressure on local leadership such as directors of MMDAs, DCEs and Coordinating Directors as management of the MMDAs to ensure such projects succeed since they will be assessed based on them in the Performance Appraisal. Another approach is engaging such local leadership who are key implementers and reorienting them about the goals of digitalisation and the need to ensure such projects succeed.

4. Moreover, there is the need for government to boost the ICT human resource capacities of the MMDAs. Currently, human resource deficits facing some of the assemblies pose significant challenges to the implementation of the reform. There is therefore the need to employ more people to augment the ICT human resource base of the assemblies.
5. In furtherance, local contexts vary and they directly or indirectly affect public administrations that operate in such contexts. Therefore to ensure reform success, policy designers must take into account various contexts within which public organisations operate and tailor policies to respond to them. This requires imbibing social accountability mechanisms in the design and implementation of reforms so that by extensive stakeholder consultations and engagements, reform designers can take advantage of local knowledge and technology and also ensure that certain structural and institutional pitfalls that can mar implementation are identified and dealt with even at an early stage.
6. Lastly, considering the fact that the majority of the people are still not aware of the ongoing Programme in their districts, or do not understand and appreciate the goals it seeks to achieve, there is a need to intensify publicity in the districts about the ongoing Programme and sensitize people on the need for such Programmes. This again comes back to the engagement of stakeholders and people who are directly involved, so that the intended users can understand and appreciate the goals the Programme seeks to achieve. This will increase patronage of digitalised Programmes among residents.

## **5.4 Theoretical and Practical Contribution**

### **5.4.1 Theoretical contribution**

Theoretically, local government entities have typically been overlooked in studies on ICT-related reforms in Ghana. The majority of the literature (Kpessa-Whyte & Dzisah, 2022; Demuyakor, 2021; World Bank Group, 2019a; Dagba, 2018; Osei-Kojo, 2016) has been devoted to the effects of digital technologies at the national level and how they might improve the efficiency of public service delivery. The common argument has been that, despite some early successes, most digitalisation initiatives only slightly improve the standard of public service delivery. This is because of a variety of factors, including a lack of ICT infrastructure, inadequate funding, issues with the digital divide, a lack of leadership commitment, and the politicization of reforms. Traditionally, however, the education sector, the justice system, the agricultural sector, the health sector, the immigration services, the trade services, and others have received greater attention (Kpessa-Whyte and Dzisah, 2022; Demuyakor, 2021; Osei-Kojo, 2016). On NPSRS (2018–2023), a substantial scholarly contribution was made by Agbevede and Tweneboah-Kodua (2020). The study examined whether public sector reform in Ghana is a myth or a reality. It was determined that, despite some strides made, the NPSRS could not escape the pitfalls of earlier reforms in Ghana. Consequently, the study concluded that public sector reform in Ghana is a myth. The study, however, did not pay attention to the reform's digitalisation component, focusing instead, on the reform as a whole. Second, the paper is silent on how the reform has affected local government units in Ghana.

Currently, scanty evidence exists on the impact of NPSRS on local government units in Ghana. Specifically, to the best of the researcher's knowledge, no study has been conducted to determine how the reform's digitalisation component has affected the

operations of Ghana's local government units, particularly the Accra Metropolitan Assembly, Techiman North District Assembly, and Nabdam District Assembly. Therefore, this study fills in the gap by determining how the NPSRS (2018–2023) reform's digitalisation component has impacted local service delivery and social accountability mechanisms in the selected MMDAs.

The study's conclusions and recommendations provide insightful information about how well digitalisation has fared at the local level. This study further demonstrates how the local environments in which MMDAs operate affected reform outcomes by either enabling or hindering implementation. Second, the study approaches the problem more comprehensively by getting input from all stakeholders. That is, as far as practicable, it relies on the accounts of CSOs, CBOs, and Assembly Members, who are the recipients of the services of the assemblies and the major stakeholders in the implementation of the digitalisation reform, in addition to officials of the MMDAs, who are the key implementers of the Programme at the district level.

It is important to note that the study's findings support the Technology-Organisation-Environment theory's premise that the technological, organisational and environmental contexts of organisations influence the adoption of new technologies. In particular, TOE was helpful in explaining variations in reform outcomes among DAs. For instance, the reform was more successful in DAs like the AMA and TNDA where specific local factors were favorable to digitalisation than in the Nabdam DA where those conditions were unfavorable. For instance, the study found that the Nabdam DA's ability to implement more digitalised programmes was hampered by the assembly's excessively unfavourable technological, organizational, and

environmental setting. Consequently, the Nabdam DA was identified to be the least digitalised and relatively resorted to manual processes of operations.

This study is crucial in two aspects in particular: First, it sought the opinions of important figures in local governance as well as important stakeholders about the implementation of district-level digitalisation. As a result, it provides useful information about how the National Public Sector Reform Strategy (2018-2023) has been implemented locally. It reveals particularly how much the reform's digitalisation component has affected local service delivery and social accountability systems in some MMDAs. The study further sheds light on the factors that influenced and shaped the implementation of digitalisation at the district level. Second, the study offers valuable recommendations on elements that can foster the successful implementation of the reform at the local level. For these reasons, the study's findings are helpful and applicable in understanding public sector e-governance reforms generally and local government-level digitalisation reform in particular. The study demonstrates that among other things, taking into account the technological, organizational, and environmental contexts of MMDAs as well as improving ICT infrastructure, funding, and securing political and administrative leadership commitment at all levels of government are essential for the successful implementation of digitalisation programmes. This contributes to the literature that theorizes about the contextual elements influencing Ghana's district-level digitalisation implementation.

#### **5.4.2 Practical contribution**

In terms of its practical contribution, the study provides policy actors with data and valuable information on how the local implementation of the digitalisation programme has fared. It highlights the fact that, despite the potential for digitalisation



to improve local service delivery and social accountability mechanisms, several important factors must be considered for successful implementation, including enhancing ICT infrastructure, securing political and administrative leadership at all levels of government, and taking into account the environmental, organizational, and technological contexts in which MMDAs operate.

Additionally, this study has significant ramifications for national development. Consistent with the country's development trajectory, the findings indicate an emergent North-South divide, in terms of the digitalisation of the DAs, with MMDAs in the North lagging behind those in the South. Trailing in digitalisation consequently entails trailing in all areas of development, since digital technologies are considered vehicles for fostering innovation and economic development, injecting efficiency into service delivery, and promoting social accountability. The technological divide also threatens to hinder effective service delivery and social accountability in the Northern parts of the country because MMDAs are the mechanisms for service delivery, local engagement, and accountability. This has far-reaching consequences for the development of the North and threatens to further entrench the already existing spatial disparities between the North and South. The study therefore stresses the need for creating an enabling environment for digitalisation to succeed in all settings, including the utilisation of solutions that are adapted to the technological, organisational and environmental contexts of the DAs. Because the reform is still ongoing, the recommendations of the study are meant to serve as a formative assessment, which will enable policy actors and stakeholders to take the necessary corrective measures to ensure the intended outcomes are realized. It is also intended to serve as a manual for future policymakers who implement comparable policies.



## REFERENCES

- Achampong, E. K. (2012). The state of information and communication technology and health informatics in Ghana. *Online Journal of Public Health Informatics*, 4(2).
- Adam, I. O. (2020). Examining e-government development effects on corruption in Africa: The mediating effects of ICT development and institutional quality. *Technology in Society, Elsevier*, 61(C), DOI: 10.1016/j.techsoc.2020.101245
- Adenle, A. A. (2020). Assessment of solar energy technologies in Africa- opportunities and challenges in meeting the 2030 agenda and sustainable development goals. *Energy Policy*, 137, 111180.
- Adu, E.P., Buabeng, T., Asamoah, K. & Damoah, C.M. (2019). *Digitalisation of local revenue collection in Ghana: An evaluation of Accra Metropolitan Assembly (AMA)*. John Wiley & Sons Ltd.
- Adusei-Asante, K. (2012). The state of Ghana's local government system: The case of Assembly Members. *Journal of Humanities and Social Science*, 4(2), 101-110
- Agbevede, A. & Tweneboah-Kodua, D. T. (2020). The search for a result-oriented public sector reform in Ghana: A myth or reality? *Journal of Public Administration and Governance*, 10(3). 136-157. ISSN 2161-7104.
- Aksoy, A. & Hoekman, B. (2013). *Why reforms fail: Political-economy forces and agriculture in Africa*. Retrieved from: <https://voxeu.org/article/why-reforms-fail-political-economy-forces-and-agriculture-africa>
- Albukhitan, S. (2020). Developing digital transformation strategy for manufacturing. *Procedia Computer Science*, 170, 664-671.
- Al-Mushayt, O. S. (2019). Automating e-government services with artificial intelligence. *IEEE Access*, 7.
- Amatya, V. (2021). *E-government and public service transformation towards a new civil service architecture of nepal*. National Institute of Development Administration, Nepal. Retrieved from: <https://repository.nida.ac.th/bitstream/handle/662723737/5687/5810131016.pdf?sequence=1&isAllowed=y>
- Andrews, R., & Entwistle, T. (2014). Public service efficiency. *Routledge*. <https://doi.org/10.4324/9780203749159>
- Anne-Meike, F. & Schwittay, A. (2019). Citizen aid: Grassroots interventions in development and humanitarianism. *Third World Quarterly*, Anne-Meike 40(10), 1769-1780. <https://doi.org/10.1080/01436597.2019.1656062>

- Aritonang, D. M. (2017). The impact of e-government system on public service quality in Indonesia. *European Scientific Journal*, 13(35), 99-111. DOI: 10.19044/esj.2017.v13n35p99
- Ashaye, O. R. & Irani, Z. (2019) .The role of stakeholders in the effective use of e-government resources in public services. *International Journal of Information Management – IJIM*, 49, (7), 253-270. DOI:10.1016/j.ijinfomgt.2019.05.016
- Ashaye, O. R. (2019). The role of stakeholders in the effective use of e-government resources in public services. *International Journal of Information Management*, 49, 253-270.
- Ashmarina, S., Mesquita, A., & Vochozka, M. (2020). *Digital transformation of the economy: Challenges, trends and new opportunities* (Vol. 908). Springer International Publishing.
- Awa, H. O., Ojiabo, O. U., & Orokor, L. E. (2017). Integrated technology-organisation- environment (T-O-E) taxonomies for technology adoption. *Journal of Enterprise Information Management*, 30(6), 893–921. doi:10.1108/JEIM-03-2016-0079
- Ayee, J. A. (2018). *Six decades of the public sector in Ghana: Issues and prospects*. Paper delivered at a roundtable organised by the Institute for Democratic Governance (IDEG) on Wednesday, 17th January, 2018.
- Ayee, J. R. A. (1989). Local government reform in Ghana: Some reflections on the 1988 Local Government Law. *Indian Journal of Public Administration*, 35(4). <https://doi.org/10.1177/0019556119890409>
- Ayee, J. R. A. (1992). Decentralization under Ghana's Fourth Republican Constitution. *Law and Politics in Africa, Asia and Latin America*, 4. *Quartaly*, 25(4), 394-406
- Ayee, J.R.A. (2008a). Decentralisation and governance in Ghana. *Regional Development Dialogue*, 29(2), 34-54.
- Ayee, J.R.A. (2008a). The balance sheet of decentralisation in Ghana, in Fumihiko Saito (ed) *Foundations for Local Governnce: Decentralisation in Comparative Perspective*. Leipzig: Physica-Verlag Springer: Chapter 11: 233-258. [https://doi.org/10.1007/978-3-7908-2006-5\\_11](https://doi.org/10.1007/978-3-7908-2006-5_11)
- Baker, J. (2011). The technology-organisation-environment framework. *Series of Integrated Series in Information Systems*, 1(28), 231-245.
- Bangura, Y. & Larbi, G. A. (2006). *Public sector reform in developing countries : Capacity challenges to improve services*. UN Research Institute for Social Development. ISBN / ISSN: 9781403987716 (hbk.), 1403987718 (hbk.)
- Beeri, I. U.-G. (2019). Does performance management relate to good governance? A study of its relationship with citizens' satisfaction with and trust in Israeli

- local government. *Public Performance & Management Review*, Anne-Meike 42(2), 241-279.
- Bhatnagar, S. (2014). *Public service delivery: Role of information and communication technology in improving governance and development impact*. Asian Development Bank (ADB) Economics Working Paper Series. NO. 391.
- Boddy, C. R. (2016). Sample size for qualitative research. *Qualitative Market Research: An International Journal*, 19(4), 426–432.
- Boschmann, N. (2009). *Fiscal decentralization and options for donor harmonization*. Development Partners Working Group on Local Governance and Decentralization (DPWG-LGD). Retrieved from: [https://www.delog.org/fileadmin/user\\_upload/Publications/Fiscal-Decentralisation.pdf](https://www.delog.org/fileadmin/user_upload/Publications/Fiscal-Decentralisation.pdf)
- Boyd, N. M. & Nowell, B. (2020). Sense of community, sense of community responsibility, organisational commitment and identification, and public service motivation: A simultaneous test of affective states on employee well-being and engagement in a public service work context. *Public Management Review*, 22(7), 1024-1050. <https://doi.org/10.1080/14719037.2020.1740301>
- Chen, Y., Chen, H. M., Ching, R. K. H. & Huang, W. W. (2009). *Electronic government implementation: A comparison between developed and developing countries*. DOI:10.4018/978-1-60566-130-8.ch006
- Connelly, L. M. (2016). Trustworthiness in qualitative research. *Medical and Surgical Nursing*, 25(6), 435-6. PMID: 30304614.
- Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches* (3<sup>rd</sup> ed.). California: Sage.
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4<sup>th</sup> ed.). California: Sage.
- Crotty, M. (1998). *The foundations of social research: Meaning and perspective in the research process*. London: Sage Publication.
- Cyber Security Authority (2022). *Organisation profile*. Retrieved from: <https://www.csa.gov.gh/>
- Dagba, G., Opoku, P. & Amankwa M. O. (2018). Promoting inclusiveness and participation in governance: The directions of electronic government in Ghana. *International Journal of Advanced Research*, 6(10), 1243-1252. DOI:10.21474/IJAR01/7931
- Debrah, E. (2014). The politics of decentralization in Ghana's Fourth Republic. *African Studies Review*, 57(1), 49-69. doi:10.1017/asr.2014.5

- Demuyakor, J. (2020). Ghana go digital Agenda: The impact of zipline drone technology on digital emergency health delivery in Ghana. *Shanlax International Journal of Arts, Science, and Humanities*, 8(1), 242-253. <https://doi.org/10.34293/sijash.v8i1.3301>
- Demuyakor, J. (2021). Ghana's digitalisation initiatives: A survey of citizens' perceptions on the benefits and challenges to the utilization of digital governance services. *International Journal of Publication and Social Studies*. 6(1), 42-55. DOI: 10.18488/journal.135.2021.61.42.55
- Devas, N. (2003). Can city governments in the south deliver for the poor: A municipal finance perspective. *International Development Planning Review*, Vol. 25 (1), PP.1–29.
- Dowding, K., & Mergoupis, T. (2003). Fragmentation, fiscal mobility, and efficiency. *Journal of Politics*, 6(5), 1190–1207. <https://doi.org/10.1111/1468-2508.t01-1-00132>
- Dzansi, J., Jensen, A., Lagakos, J., Otoo, I., Telli, H. & Zindam, C. (2018). *Survey of local government revenue mobilisation capacity in Ghana, 2017: Summary and policy implications*.S-33417-GHA-2. Retrieved from: [https://www.theigc.org/wp-content/uploads/2019/01/Dzansi-et-al-2018-Final-report\\_rev-Nov-2018.pdf](https://www.theigc.org/wp-content/uploads/2019/01/Dzansi-et-al-2018-Final-report_rev-Nov-2018.pdf)
- Economic Commission for Africa. (2010). *Innovations and best practices in public sector reforms: The case of civil service in Ghana, Kenya, Nigeria and South Africa*. Retrieved from: [https://uclgafrica-alga.org/wp-content/uploads/2019/05/Innovation-and-best-practices-in-Public-Sector-Reform .pdf](https://uclgafrica-alga.org/wp-content/uploads/2019/05/Innovation-and-best-practices-in-Public-Sector-Reform.pdf)
- ElMassah, S. & Mohieldin, M. (2020). Digital transformation and localizing the Sustainable Development Goals (SDGs). *Ecological Economics*, 169, 106490. ISSN 0921-8009, <https://doi.org/10.1016/j.ecolecon.2019.106490>.
- ESID. (2017). Public sector reform in Africa: Understanding the paths and politics of change. ESID Briefing number 28. Retrieved from: [https://www.effective-states.org/wp-content/uploads/2018/01/esid\\_bp\\_28\\_PSR-Africa.pdf](https://www.effective-states.org/wp-content/uploads/2018/01/esid_bp_28_PSR-Africa.pdf)
- Essuman-Mensah, D. (2019). A study of the performance of reform institutions: Focusing on the evolution of public sector reforms in Ghana. *Journal of International Development Cooperation*, 14(2), 99-130 <https://doi.org/10.34225/jidc.2019.14.2.99>
- Florio-Ruane, S. (1991). Conversation and narrative in collaborative research, in C. Witherell and N. Noddings, (eds), *Stories lives tell: narrative and dialogue in education*. New York: Teachers College Press. PP. 234–256.
- Fredriksson, M. & Pallas, P. (2018). New Public Management. *International Encyclopedia of Strategic Communication*. DOI: 10.1002/9781119010722.iesc0119

- Ghana Audit Service (2021). *Report of the Auditor-General on the public accounts of Ghana: Ministries, Departments and other Agencies (MDAs) for the year ended 31 December 2020*. Retrieved from: <https://ghaudit.org/web/wp-content/uploads/Reports/2020/2020-MDAs-Report-Final-Reviewed.pdf>
- Ghana Statistical Service. (2014a). *2010 population and housing census district analytical report: Accra Metropolitan*. Retrieved from: [https://www2.statsghana.gov.gh/docfiles/2010\\_District\\_Report/Greater%20Accra/AMA.pdf](https://www2.statsghana.gov.gh/docfiles/2010_District_Report/Greater%20Accra/AMA.pdf)
- Ghana Statistical Service. (2021). *Ghana 2021 population and housing census general report (Volume 3A): Population of regions and districts*. Retrieved from: [https://statsghana.gov.gh/gssmain/fileUpload/pressrelease/2021%20PHC%20General%20Report%20Vol%203A\\_Population%20of%20Regions%20and%20Districts\\_181121.pdf](https://statsghana.gov.gh/gssmain/fileUpload/pressrelease/2021%20PHC%20General%20Report%20Vol%203A_Population%20of%20Regions%20and%20Districts_181121.pdf)
- Ghana Statistical Service. (2014b). *2010 population and housing census district analytical report: Techiman North District*. Retrieved from: [https://www2.statsghana.gov.gh/docfiles/2010\\_District\\_Report/Brong%20Ahafo/TECHI\\_MAN%20NORTH.pdf](https://www2.statsghana.gov.gh/docfiles/2010_District_Report/Brong%20Ahafo/TECHI_MAN%20NORTH.pdf)
- Ghana Statistical Service. (2014c). *2010 population and housing census district analytical report: Nabdram District*. Retrieved from: [https://www2.statsghana.gov.gh/docfiles/2010\\_District\\_Report/Upper%20East/NABDA\\_M.pdf](https://www2.statsghana.gov.gh/docfiles/2010_District_Report/Upper%20East/NABDA_M.pdf)
- Ghana Statistical Service. (2015). *Ghana Poverty Mapping Report*. Retrieved from: <https://www2.statsghana.gov.gh/docfiles/publications/POVERTY%20MAP%20FOR%20GHANA-05102015.pdf>
- Government of Ghana. (2003). *ICT4AD Policy*. Retrieved from: <http://www.ghanahealthservice.org/downloads/Ghana%20ICT4AD%20Policy.pdf>
- Government of Ghana. (2010a). *Ghana's new approach to public sector reform: Focusing on delivery*. 70156
- Government of Ghana. (2010b). *Draft Decentralization Policy Framework*. Retrieved from: [https://newndpcstatic1.s3.amazonaws.com/pubication/Decentralisation\\_PolicyFramework\\_Apr2010+\(Draft\).pdf](https://newndpcstatic1.s3.amazonaws.com/pubication/Decentralisation_PolicyFramework_Apr2010+(Draft).pdf)
- Government of Ghana. (2017). *National Public Sector Reform Strategy (NPSRS) 2018-2023*. Retrieved from: <http://psrs.gov.gh/sites/default/files/publicationdocuments/FULL%20VERSION%20OF%20THE%20NPSRS%20DOCUMENT.pdf>
- Guba, E. G. & Lincoln, Y. S. (1989). *Fourth generation evaluation*. Newbury Park: Sage.



- Gumah, B. & Aziabah, M. A. (2020). *Our lives are affected by government agencies: Citizens' perception survey as a measure of public service efficiency in Ghana*. Sage publications. DOI: 10.1177/2158244020935900
- Gumede, N., Byamukama, J. & Dakora, E. (2019). Contemporary perspectives on fiscal decentralisation and new local government in South Africa. *Ghana Journal of Development Studies*, 16(2), 52-69.  
DOI/<http://dx.doi.org/10.4314/gjds.v16i2.3>
- Gyaase, P. O. K. (2014). *Re-engineering governance; e-government as a tool for Decentralization: Ghana as a case study (1 ed.)* Department of Electronic Systems, Aalborg University.
- Haruna, F. P. (2003). Reforming Ghana's Public Service: Issues and experiences in comparative perspective. *Public Administration Review* , Vol. 63, (3). Pp. 343-354. <http://epress.lib.uts.edu.au/ojs/index.php/cjlg>
- Hastings, S. L. (2012). *Triangulation* in Salkind, N.J. (ed), Encyclopedia of Research Design.
- Heeks, R. (1999). *Reinventing government in the information age*. New York: Routledge.
- Heeks, R. (2003). Most e-government for development projects fail: How can risks be reduced. Manchester. Institute for Development Policy and Management.
- Hertz, J. C. (2016). Social accountability in cross-sectoral service delivery: The Kinerja Public Service Delivery Programme in Indonesia. In A. Wetterberg, D. W. Brinkerhoff & J. C. Hertz (Eds), *Governance and service delivery: Practical applications of social accountability across sectors*. RTI Press. ISBN 978-1-934831-18-2 (pp. 81-100)
- Hoffman, B. D. & Metzroth, K. M. (2010). *The political economy of decentralization in Ghana*. Center for Democracy and Civil Society. Georgetown University. Retrieved from:  
<https://europa.eu/capacity4dev/file/8463/download?token=HG2cINm6>
- ICF Consulting Services. (2017). *Urban governance and services in Ghana: Institutional, financial and functional constraints to effective service delivery*. Retrieved from: <https://www.citiesalliance.org/sites/default/files/Urban%20Governance%20and%20Services%20in%20Ghana.pdf>
- Ingrams, A. M. (2020). Stages and determinants of e-government development: a twelve-year longitudinal study of global cities. *International Public Management Journal*, 23(6), 731-769.
- Jide, I. (2014). Conceptual issues in development administration. *International Journal of Innovative Education Research*, 2(2), 19-31.

- Justino, M. V., Tengeh, R. K. & Twum-Darko, M. (2022). A revised technology–organisation– environment framework for brick-and-mortar retailers adopting m-commerce. *Journal of Risk and Financial Management*, 15(289), 1-18 <https://doi.org/10.3390/jrfm15070289>
- Kalimullah, N. A., Alam, K. M. A. & Nour, M.M. A. (2012). New Public Management: Emergence and principles. *BUP Journal*, 1(1), 1-22. ISSN: 2219-4851
- Karyeija, G. K (2012) Public sector reforms in Africa: What lessons have we learnt? *Forum for Development Studies*, 39(1), 105-124, DOI: 10.1080/08039410.2011.635378
- Kern, T., Andrašec, E. K., Urh, B. & Marjan Senegačnik, M. (2020). Digital transformation reduces costs of the paints and coatings development process. *Coatings*, 10(7), Doi:10.3390/coatings10070703
- Khalil, S. & Salihu, A. (2012). Model for efficient service delivery in public service. *Journal of Public Administration and Governance*, 2(3), 85-95. DOI: 10.5296/jpag.v2i3.2157
- Khoa, B. T. (2020 October). The role of mobile skillfulness and user innovation toward electronic wallet acceptance in the digital transformation era. *2020 international conference on information technology systems and innovation (ICITSI)*, pp. 30-37.
- Kpentey, S. B. (2019). Local government and participation in Ghana. *Academic Review of Humanity and Social Sciences*, 2(2),168-188
- Kpessa-Whyte, M. & Dzisah, J.S. (2022). *Digitalisation of basic services in Ghana: State of policies in action and lesson for progress*. Retrieved from: <https://includeplatform.net/wp-content/uploads/2022/10/Digitalisation-of-Basic-Services-in-Ghana-State-of-Policies-in-Action-and-Lesson-for-Progress.pdf>
- Kubuga, K. K., Ayoung, D. A., & Bekoe, S. (2021). *Ghana's ICT4AD policy: Between policy and reality*. Emerald Publishing Limited.
- Kweku, M., Amu, H., Awolu, A., Adjuik, M., Ayanore, M. A., Manu, E., Tarkang, E. E., Komesuor, J., Asalu, G. A., Aku, F. Y., Kugbey, N., Anumu, F., Boateng, L, A. Alornyo, J. S., Glover, R., Letsa, T., Bawah, A. A., Kanlisi, N.S., Awoonor- Williams, J. K., Phillips, J.F. & Gyapong, J. O. (2020). *Community-based health planning and services plus Programme in Ghana: A qualitative study with stakeholders in two Systems Learning Districts on improving the implementation of primary health care*. <https://doi.org/10.1371/journal.pone.0226808>
- Lawan, B. M. (2020). E-government and public service delivery in nigeria. *e-BANGI*, 17(5), 1-14.

- Lee-Geiller, S. & Lee T. (2019). Using government websites to enhance democratic E-governance: A conceptual model for evaluation. *Government Information Quarterly*, 36(2), 208-225. DOI:[10.1016/j.giq.2019.01.003](https://doi.org/10.1016/j.giq.2019.01.003)
- Li, F. (2020). The digital transformation of business models in the creative industries: A holistic framework and emerging trends. *Technovation*, 92, 102012.
- Li, J. C. F. (2020). Roles of individual perception in technology adoption at organisation level: Behavioral model versus TOE framework. *Journal of System and Management Sciences*. 10(3), 97–118. doi:10.33168/JSMS.2020.0308
- Li, Y. & Shang, H. (2020). Service quality, perceived value, and citizens' continuous-use intention regarding e-government: Empirical evidence from China. *Information & Management*, 57(3), 1-15. <https://doi.org/10.1016/j.im.2019.103197>
- Lincoln, Y. S. & Guba, E. G. (1985). *Naturalistic inquiry*. London: Sage.
- Lincoln, Y. S., & Guba, E. G. (1985). *Establishing trustworthiness in naturalistic inquiry*. Beverly Hills, CA: Sage.
- Local Governance Act, (2016, Act 936). Retrieved from: <https://lgs.gov.gh/local-governance-act-of-2016-act-936/>
- Lufunyo, H. (2013). Impact of public sector reforms on service delivery in Tanzania. *International Journal of Social Science Tomorrow*, 2(2). 1-26
- Maama, H. & Marimuthu, F. (2020). *Accountability in the Ghanaian local governance structure: Probing the role of external auditing*. *Problems and Perspectives in Management*, 18(4), 475-485. doi:10.21511/ppm. 18 (4).2020.38
- Mahlangu, G., & Ruhode, E. (2021). Factors enhancing e-government service gaps in a developing country context. Retrieved from: <https://arxiv.org/ftp/arxiv/papers/2108/2108.09803.pdf>
- Maravilla, G. A. R. & Grayman, J. H. (2020). Understanding participatory budgeting through formal and informal processes of inclusion: a case study in the Philippines. *Development in Practice*, 30(4), 448-458. <https://doi.org/10.1080/09614524.2020.1721435>
- Marshall, B., Cardon, P., Poddar, A. & Fontenot, R. (2013). Does sample size matter in qualitative research?: A review of qualitative interviews in IS research. *Journal of Computer Information Systems*, 54(1), 11-22.
- Mathapoly-Codjoe E. (2015). *Assessing the implementation of e-government in Ghana's public sector*. Department of Political Science. University of Ghana. Retrieved from: <https://ugspace.ug.edu.gh/bitstream/handle/123456789/8389/MathapolyCodjo>



[e%20Enock%20%20 %20%20Assessing%20The%20Implementation%20of %20EGovernment%20in%20Ghana%E2%80%99s%20Public%20Sector%20 2015.pdf?sequen ce=1](#)

- Mensah, I. K. (2019). Impact of government capacity and E-government performance on the adoption of E-Government services. *International Journal of Public Administration*...PP. 1-3 DOI: 10.1080/01900692.2019.1628059
- Milán-García, J., Rueda-López, N. & Pablo-Valenciano, J. (2021). Local government efficiency: Reviewing determinants and setting new trends. *International Transactions in Operational Research*. 29 (2022), 2871–2898 DOI: 10.1111/itor.13032.
- Ministry of Communications and Digitalisation. (2022). Ghana Domain Name Registry. <https://moc.gov.gh/gdnr/>
- Ministry of Local Government and Rural Development. (2010). Draft Decentralization Policy Framework. Retrieved from: [https://new-ndpc-static1.s3.amazonaws.com/pubication/DecentralisationPolicyFramework\\_Apr 2010+\(Draf t\).pdf](https://new-ndpc-static1.s3.amazonaws.com/pubication/DecentralisationPolicyFramework_Apr 2010+(Draf t).pdf)
- Mishra, S. S. & Geleta, A. T. (2019). Can an e-government system ensure citizens' satisfaction without service delivery?. *International Journal of Public Administration*, 43(3), 242-252. <https://doi.org/10.1080/01900692.2019.1628053>
- Mpinganjira, M. (2013). E-government project failure in Africa: Lessons for reducing risk. *African Journal of Business Management*, 7(32), 3196-3201. DOI:10.5897/AJBM12.1093
- Naidoo, G. (2012). Implementation of E-government in South Africa - successes and challenges: The way forward. *International Journal of Advances in Computing and Management*, 1(1), 62-66.
- Navarra, D. & Cornford, T. (2005). ICT, innovation and public management: Governance, models & alternatives for e-government infrastructures...1573-1583. Retrieved from: [https://www.researchgate.net/publication/221409468\\_ICT\\_Innovation\\_and\\_Public\\_Management\\_Governance\\_Models\\_Alternatives\\_for\\_E-Government\\_Infrastructures](https://www.researchgate.net/publication/221409468_ICT_Innovation_and_Public_Management_Governance_Models_Alternatives_for_E-Government_Infrastructures)
- Office of the Senior Minister. (2020). *Public Sector Reform for Results Project (PSRRP)*. Ref No. GH-OSM-172493-CS-CQS. Retrieved from: [https://osm.gov.gh/downloads/GHANA\\_PSRRP\\_OSM\\_PMU\\_TOR\\_JUNIOR\\_M\\_E\\_CO NSULTANT\\_2.pdf](https://osm.gov.gh/downloads/GHANA_PSRRP_OSM_PMU_TOR_JUNIOR_M_E_CO NSULTANT_2.pdf)
- Ofoma, C. (2022). Digitalisation driven public service and service delivery: The Nigeria's experience. *Journal of Public Administration, Finance and Law*...PP. 73-80. DOI: 10.47743/jopaf1-2021-22-05

- Ohemeng, F. & Ayee, J. (2016). The new approach to public sector reforms in Ghana: A case of politics as usual or a genuine attempt at reform? *Development Policy Review*, 34(2), 277-300. DOI:10.1111/dpr.12150.
- O'Leary, Z. (2017). *The essential guide to doing your research project (3rd ed.)*. SAGE Publications.
- Omoyefa, P. S. (2010). Public sector reforms in Africa: A philosophical re-thinking. *Africa development*, 33(4). 15-30. DOI:10.4314/ad.v33i4.57332
- Osborne, D. & Gaebler, T. (1993). *Reinventing government: How the entrepreneurial spirit is transforming the public sector*. New York: Penguin Books.
- Osei-Kojo, A. (2016). *E-government and public service quality in Ghana*. DOI: 10.1002/pa.1620
- Otoo, I., & Danquah, M. (2021). Fiscal decentralization and efficiency of public services delivery by local governments in Ghana. *African Development Review ...* PP. 1-15. DOI: 10.1111/1467-8268.12590
- Oxford Business Group. (2021). *Ghana forges ahead with strategy to digitise public services, spurring growth in ICT sector*. Retrieved from: <https://oxfordbusinessgroup.com/covid-19-update-registration>
- Palmer, S. & Torgerson, D. (1999). Economic notes: Definitions of efficiency. *BMJ (Clinical research ed.)*, Vol. 318. PP. 1136. DOI: 10.1136/bmj.318.7191.1136.
- Pinnacle Advisory Consult (PACS) (2021, March 15). *Understanding and enhancing the quality of service delivery*. Retrieved from: <https://pacsmena.com/viewpoints/understanding-and-enhancing-the-quality-of-service-delivery>
- Porogo, K. M. (2021). A strategic framework for digital preservation in the context of e-government in Botswana public service. *Journal of the South African Society of Archivists*, 54, 83-101.
- Quaynor, N., Tevie, W. & Bulley, A. (1997). Expansion of the Internet backbone in Ghana. Accra, Ghana: Network Computer Systems. Retrieved from: [http://www.isoc.org/inet97/proceedings/E5/E5\\_2.HTM](http://www.isoc.org/inet97/proceedings/E5/E5_2.HTM)
- Republic of Ghana. (2003). *The Ghana ICT for Accelerated Development [ICT4AD] Policy*. Government Publisher.
- Russell. (2021, November 25). *Why is it important to provide efficient and effective service delivery?* Retrieved from: <https://www.vp-delivery.com/why-is-it-important-to-provide-efficient-and-effective-servicedelivery/#:~:text=Efficient%20and%20effective%20service%20delivery%20involves%20creating%20a%20win%2Dwin,products%20provided%20by%20a%20company>

- Sandelowski M. (1996). One is the liveliest number: The case orientation of qualitative research. *Res Nurs Health*, 19(6), 9-525. DOI: 10.1002/(SICI)1098-240X(199612)19:6<525::AID-NUR8>3.0.CO;2-Q
- Sandor, D. (2012). ICT and public administration reforms. *Transylvanian Review of Administrative Sciences*. No. 36 E/2012, pp. 155-164
- Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for Information*, 22, 63–75. Doi:10.3233/EFI-2004-22201.
- Shittu, A.K. (2020). Public service and service delivery. Farazmand (ed.), *Global Encyclopedia of Public Administration, Public Policy, and Governance*, [https://doi.org/10.1007/978-3-319-31816-5\\_4005-1](https://doi.org/10.1007/978-3-319-31816-5_4005-1)
- Simpson, S. N.B. (2020). Exploring the socio-cultural factors in the implementation of public financial management information system in Ghana. *Journal of Accounting & Organisational Change*. DOI:10.1108/JAOC-10-2018-0100
- Solomon, E. M., & Klyton, A. V. (2020). The impact of digital technology usage on economic growth in Africa. *Utilities Policy*, vol. 67. <https://doi.org/10.1016/j.jup.2020.101104>
- Sy, A. N., Maino, R., Massara, M., Perez-Saiz, H. & Sharma, P. (2019). FinTech in Sub-Saharan African Countries: A Game Changer? *International Monetary Fund*. ISBN/ISSN:9781484385661/2616-5333
- Terrell, S. R. (2016). *Writing a proposal for your dissertation: Guidelines and examples*. The Guilford Press.
- Tornatzky, L. G., & Fleischer, M. (1990). *The processes of technological innovation*. Lexington, MA: Lexington Books.
- Udayanganie, U. (2020). *Conceptualizing local governance in the context of citizen participation: Towards a participatory approach of local government institutions in Sri Lanka*. 13<sup>th</sup> International Research Conference General Sir John Kotelawala Defence University. Paper ID: 677. Retrieved from: <http://ir.kdu.ac.lk/bitstream/handle/345/2938/Conceptualizing%20Local%20Governance%20in%20the%20Context%20of%20Citizen%20Participation%20Towards%20a%20Participatory%20Approach%20of%20Local%20Government%20Institutions%20in%20Sri%20Lanka.pdf?sequence=1&isAllowed=y>
- United Nations Development Programme. (2018). *E-governance and citizen participation in West Africa: Challenges and opportunities case studies*. Retrieved from: [https://www.undp.org/content/undp/en/home/librarypage/democratic-governance/access\\_to\\_informationand-e-governance/e-govinWA.html](https://www.undp.org/content/undp/en/home/librarypage/democratic-governance/access_to_informationand-e-governance/e-govinWA.html)

- United Nations Educational, Scientific and Cultural Organisation. (2007). *Ethical implications of emerging technologies*. Retrieved from: <http://portal.unesco.org/ci/en/ev.php>
- Vasileiou, K., Barnett, J., Thorpe, S., & Young, T. (2018). Characterising and justifying sample size sufficiency in interview-based studies: Systematic analysis of qualitative health research over a 15-year period. *BMC Medical Research Methodology*. Vol. 18 (148), 1- 18. <https://doi.org/10.1186/s12874-018-0594-7>
- Wetterberg, A. (2016b). Social accountability in cross-sectoral service delivery: The leadership, empowerment, advocacy, and development Programme in Nigeria. In A. Wetterberg, D. W. Brinkerhoff & J. C. Hertz (Eds), *Governance and service delivery: Practical applications of social accountability across sectors*. RTI Press. ISBN 978-1-934831-18-2 (pp. 125-146)
- World Bank Group. (2019a). *Digital economy for Ghana diagnostic report*. Washington, DC: <https://thedocs.worldbank.org/en/doc/412821598381054828-0090022020/original/GhanaDE4ALOWRes.pdf>
- World Bank. (2017). *Ghana Public Sector Reform for Results Project*. Retrieved from: [https://ewdata.rightsindevelopment.org/files/documents/65/WB-P164665\\_Ganp9FB.pdf](https://ewdata.rightsindevelopment.org/files/documents/65/WB-P164665_Ganp9FB.pdf)
- Yusuf, B. Y. & Hulme, D. (2019). *Service delivery reform in Nigeria: The rise and fall of the Conditional Grant Scheme to Local Government Areas (CGS to LGAs)*. ESID Working Paper No. 114. ISBN: 978-1-912593-16-3.
- Zumofen, R., Kakpovi, B. G. & Mabillard, V. (2022). Outcomes of government digitalisation and effects on accountability in Benin. *Emerald Publishing Limited*. 16(3), 305-317. doi 10.1108/TG-10-2021-0173

## APPENDICES

### APPENDIX A

#### INTERVIEW GUIDE

##### CATEGORY A: STAFF OF THE ASSEMBLY

This is an interview guide in partial fulfillment of the award of Master of Philosophy (MPhil) in Political Science Education. The topic under study is ‘Reforming local government through digitalisation.’ Please note that this exercise is strictly for academic purposes, and participation is voluntary. Significantly, anonymity of informants shall be strictly ensured. The researcher will therefore be very grateful if you could assist the study by divulging the necessary information.

##### Demographic Information

- 1) Location.....
- 2) Position/Rank.....
- 3) Age.....

##### SECTION A: THE STATE OF DIGITALISATION OF MMDAs

1. To what extent have the activities of the DA been digitalised? (Things to consider include)
  - **Technology:** Availability of appropriate technologies and ICT equipment (e.g. computers, printers, internet, power, scanners, photocopiers, etc. hardware and software)
  - **Staffing and skills:** Adequate number of staff and requisite IT and managerial skills.
  - **Processes:** Digitalised work, managerial and institutional processes.

## **SECTION B: IMPACT OF REFORM ON SERVICE DELIVERY**

1. How has digitalisation affected/changed the way you deliver services in the district?
2. Can you mention specific services that have been affected (digitalised) as a result of the reform?
3. How were these services delivered before the implementation of the reform? And how different are they delivered now?
4. Do you think the reform has improved your service delivery capacity?
5. How has digitalisation of the Assembly promoted efficiency and effectiveness in service delivery?

## **SECTION C: IMPACT OF DIGITALISATION ON SOCIAL ACCOUNTABILITY MECHANISMS**

### **Transparency and Participation<sup>5</sup>**

1. How has digitalisation improved/ impacted transparency and participatory mechanisms in the district?
2. Do you have a website or any social media account through which you engage residents? (If yes, was it created as a result of the reform?)
3. How well do residents patronize such platforms? (thus if they exists)
4. What digitalised avenues exist for residents/CSOs/CBOs to participate in local governance?
5. How are social accountability (Transparency and participation) mechanisms imbibed in the digitalisation Programme?
  - How conscious are residents of the on-going Programme?
  - How is the Assembly collaborating with residents in the district in terms of implementation? (Do residents have any role to play in the digitalisation agenda?)
  - What avenues exist for residents to give inputs with regards to the implementation of the Programme?
  - Has any community partnership group/forum been created as a result of the Programme?



### **Local Accountability**

1. Do you think digitalisation has improved local accountability in the administration of the Assembly?
2. If yes, in what ways has digitalisation improved local accountability Administration?
3. Do any avenues exist for residents to ensure local accountability?
4. Do you have any complaints-management systems?
5. Have such systems been digitalised?

### **SECTION D: CHALLENGES TO REFORM IMPLEMENTATION**

1. What general challenges are you encountering in the district with regards to digitalisation?
2. How is local context (literacy levels, ICT adoption levels, poverty levels, local economy etc.) affecting the Assembly's digitalisation drive?
3. Which of the following pose a challenge to the Assembly's digitalisation drive? (please rank them in order of importance)
  - Infrastructure challenges
  - Financial challenges
  - Inadequate IT personnel (human resources)
  - Low adoption rate by residents

### **SECTION E: RECOMMENDATION(S)**

What do you think could be done to foster implementation of the digitalisation Programme in the district?



## APPENDIX B

### INTERVIEW GUIDE

#### CATEGORY B: DISTRICT RESIDENTS (CSOs, CBOs, ASSEMBLY MEMBERS)

This is an interview guide in partial fulfillment of the award of Master of Philosophy (MPhil) in Political Science Education. The topic under study is ‘Reforming local government through digitalisation.’ Please note that this exercise is strictly for academic purposes, and participation is voluntary. Significantly, anonymity of informants shall be strictly ensured. The researcher will therefore be very grateful if you could assist the study by divulging the necessary information.

#### Demographic Information

- 3) District..... 3) Age.....  
4) Name of Organisation..... 4) Title/Rank.....

#### SECTION A: IMPACT OF REFORM ON SERVICE DELIVERY

1. How long have you been working with the Assembly ?
2. What services does the Assembly provide to you?
3. Has any of these services been digitalised?
4. Are you aware of any digitalised services by the Assembly?
5. Are these services easily accessed?
6. As a recipient of the Assembly’s services, how satisfied are you with the quality of these services?
7. Do you think the quality of these services has improved or deteriorated over time?
8. How will you compare the quality of the services you receive from the Assembly now with before 2018 (before and after 2018)?
9. Have you noticed any change in the mode of service delivery by the Assembly over the years? (If yes, how different is the current mode from the previous mode?)

10. What can you say generally about the following variables with regards to digitalised services (if any)?
- **Speed:** The time taken to deliver a service
  - **Responsiveness:** How responsive are the services to your needs?
  - **Engagement** – Are the manner in which services are delivered seen as customer-centric (i.e. participatory and trustworthy with the customer's needs at the core)
  - **Value** – Do you believe that service delivery mechanism is cost effective, and value is driven by your outcomes and not organisational processes?
  - **Integration** – Are the service delivery mechanisms integrated. For instance, are there no 'wrong doors' for customers (corruption and protocol)?
  - **Choice** – Are there multiple channels for service delivery? For instance, do you have 'channels of choice', depending on specific needs at a specific time?
11. What challenges can you identify with regards to service delivery by the DA?

## **SECTION B: IMPACT OF DIGITALISATION ON SOCIAL ACCOUNTABILITY MECHANISMS**

1. Are you aware of any website/social media account operated by the DA?
2. What purposes are these social media accounts deployed for?
3. How often do you patronize such platforms?
4. What challenges can you identify with regards governance of the district?
5. Is there any complaints-management system you are aware of?  
(if yes, is the system digitalised?)
6. Do you think the activities of the DA are transparent enough?  
(If yes, would you associate it to the digitalisation of the Assembly?)
7. Are you aware of any digitalised avenues available to you as a resident to participate in local governance?
8. Are you aware of any digitalised mechanisms available to you as a resident to hold the Assembly responsible and accountable?

### **SECTION C: ROLE OF STAKEHOLDERS IN THE IMPLEMENTAION OF THE REFORM**

1. Are you aware of the on-going digitalisation Programme in the district?  
(If yes, how did you become aware of it?)
2. Were you consulted by the Assembly before implementation?
3. As a stakeholder, what role do you play as far as the Programme is concerned?
4. Are you aware of any avenues available for you to give inputs/contributions to the implementation of the Programme?
5. Do you think digitalisation has improved local service delivery?
6. Do you think the reform has improved transparency and accountability in the activities of the DA?

### **SECTION D: CHALLENGES TO REFORM IMPLEMENTATION**

4. What general challenges can you identify as far as implementation of digitalisation in the district is concerned?

### **SECTION D: RECOMMENDATION(S)**

1. What do you think could be done to improve the quality of service delivery by the DA?
2. What do you think could be done to improve transparency and accountability in local governance by the DA?