

**IMPLEMENTATION OF E-GOVERNMENT IN MALAWI: CHALLENGES AND
OPPORTUNITIES**

By

Stallich Ishmael Mwambiwa

THESIS

Submitted to

KDI School of Public Policy and Management

in partial fulfilment of the requirements

for the degree of

MASTER OF PUBLIC MANAGEMENT

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ABSTRACT

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By

Stallich Ishmael Mwambiwa

The advent of e-government in most developing countries was considered as a panacea to enhance efficiency and effectiveness in the delivery of public services. Similarly, most proponents of the initiative envisioned the potential for developing countries to create an enabling environment for the growth of the private sector and harmonization of information across government departments and agencies. Like many developing countries, Malawi adopted the initiative in the early 2000 with the triple goal of enhancing service delivery, growth of the private sector and information sharing between and among government agencies.

This study explored the implementation of e-government in Malawi from its inception in 2004. The results reveal that the implementation of e-government in Malawi has not been as successful as espoused by the proponents. The study established several challenges that have hampered the successful implementation of e-government in Malawi which include lack of political will, change management problems, lack of proper coordination with other stakeholders, cultural impacts as well as the general lack of policy direction. The study has also revealed, through a policy comparative analysis with Mozambique, that Malawi lags behind in the initiative owing to lack of proper strategic interventions such as ICT and E-government Implementation Strategies that provide a general direction on the adoption and operationalization

of the e-government initiative in government departments and agencies with specific targets, time frame and deliverables for evaluation.

The study, therefore, has put in place several recommendations for the successful implementation of e-government in Malawi to enable the country to realize the benefits of the initiative. These recommendations include the development of the ICT and E-government Implementation Strategies, enacting regulatory policies to support e-government implementation, instituting sound e-government awareness programs, revisiting the existing curricula for government training institutions to accommodate ICT programs, incentivizing existing e-services to lure more users and establishing the e-government advisory committee that will comprise both key government officials and the private sector operators. In overall, these recommendations ameliorate existing e-government implementation challenges in Malawi and ultimately, provide profound opportunities for the success of e-government implementation in the country.

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Dedicated to my father, late Ngwazi Dr. Mwambiwa.

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ABBREVIATIONS

AM	Airtel Malawi
DIST	Department of Information System and Technology
eGI4M	e-government Interoperability Framework for Mozambique
E-government	Electronic Government
E-services	Electronic Services
ESCOM	Electricity Supply Corporation of Malawi
ICT	Information, Communications and Technology
FDI	Foreign Direct Investment
LWB	Lilongwe Water Board
MACRA	Malawi Communications and Regulatory Authority
MIM	Malawi Institute of Management
MOZ-EG Strategy	Mozambique E-government Strategy
MPC	Malawi Postal Corporation
MTL	Malawi Telecommunications Limited
SADC	Southern Africa Development Community
SDI	Staff Development Institute
TEVETA	Technical Entrepreneurial and Vocation Education Training
TNM	Telkom Networks Malawi
UN	United Nations
UNDP	United Nations Development Program
USA	United States of America

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SECTION ONE – INTRODUCTION

1.1 Background to the Study

The proliferation of Information and Communications Technology (ICT) has spurred new thoughts in the delivery of services by governments. An important application that has been adopted in service delivery systems is the e-government which has been defined as the use of information technology, in particular the internet, to deliver public services in a much more convenient, customer oriented, cost effective and altogether different and better way (Holmes 2001). The e-government is driven by the need for government to cut cost and improve efficiency, meet citizen's service delivery expectations and improve citizen relationships as well as facilitating economic development. By embracing the web, countries appeal to attract investors and help local firms step up to become part of the global market which eventually contributes to the development of the country.

The main advocates for e-government argue that the initiative is a solution for both developing and developed countries to promote efficient and effective service delivery to the citizenry. For instance, Bwalya & Mutula (2014) argue that e-government design provides an array of information about government services and programs online accessible to citizenry without physically visiting public offices or using third parties. This set up enable citizens to access real-time online services, track progress of administrative actions thereby promoting transparency and accountability on the part of government machinery.

Furthermore, the advocates of e-government argue that the initiative provides an enabling environment for the flourishing of the business sector. Within the framework of e-government, Kim, Lee & Kim (2008) argue that governments institute structural measures to put in place

friendly service delivery systems in order to ensure the growth and competitiveness of the private sector. This, they argue, involves online expedition of private sector based services such as licenses, trade permits, procurement, tender processing, and information exchange. This creates an investment friendly environment by lowering transaction cost in business thereby enhancing efficiency, competitiveness and ease of doing business (Holzer, You & Manoharan 2009).

Similarly, e-government has been advocated as a measure to promote information exchange between and among government departments offering complementary or related services. As Mkohkwo (2013) explains, governments under the framework of e-government promote the development of government portals as a one stop centre covering services that could be offered by several government departments. The system reduces the requirement to visit several government offices for the completion of a service which ultimately eases the provision of services to the citizen and the business community at large.

Based on the predominant arguments for e-government, the Malawi government began implementing the initiative in order to enhance service delivery to the citizens, the private sector and improve general information sharing among government departments. However, despite government efforts to promote e-government implementation, the initiative has not been successfully embraced by government agencies as a tool for efficient and effective service delivery. Mtingwi & Belle (2012) and Makoza (2013) argue that the key challenges that have hampered successful implementation of e-government in Malawi are the limitations in ICT skills, lack of financial resources, inadequate ICT infrastructure and the digital divide (ICT capacity and knowledge gap). In this context, “challenges” refer to factors that have hindered the successful implementation of e-government in Malawi.

Nevertheless, I feel that the major challenge for e-government implementation in Malawi which has not been pointed out in the existing literature is the e-government implementation policy and strategies. As argued by Brown & Carson (2013), the success of e-government implementation in most developed countries was largely dependent on the quality of e-government supporting policies and guiding implementation frameworks.

1.2 Problem Statement

Failure to successfully implement e-government in Malawi has made the country uncompetitive in attracting foreign investors as compared to her neighboring countries. Secondly, there has been a general slowdown in the growth of businesses in Malawi as the traditional offline services are seemingly outdated and costly to the private sector which has inadvertently, led to increasing levels of unemployment. Similarly, services offered by the government are largely inaccessible by the majority of the citizens both in rural and urban areas owing to the need for physical visit to public offices. Furthermore, the offline services have been associated with increasing levels of corruption in the country which has affected not only efficient delivery of services but also resulted in the withdrawal of donor support (Makoza 2013).

Against such background, this research project attempted to assess the implementation of e-government in Malawi with a focus on the challenges in order to establish appropriate strategic interventions that can provide guidance towards the successful implementation of the e-government initiatives in the country.

1.3 Hypothesis

The study was guided by the hypothesis that *successful implementation of e-government is dependent upon the availability of appropriate implementation strategy.*

1.4 Research Question

This study explored and attempted to address the question of: “*what is the most appropriate strategy for promoting the successful implementation of e-government in Malawi?*”

1.5 Thesis Statement

Based on the above research question, I have argued in this paper that the *Public Sector E-government Implementation Strategy* is the most appropriate strategy for speeding up e-government implementation in Malawi. This strategy provides mandate and guidelines for the implementation of e-government in all government agencies and departments. Similarly, the strategy aligns government ICT budgetary support to government and departments besides providing strategic direction to all programs meant to promote ICT diffusion to the citizens and training institutions. The strategy also promotes partnerships between government agencies and IT vendors in line with the e-government best practices drawn from countries that have successfully implemented the initiative. Furthermore, the strategy sets milestones and deliverables for e-government implementation across the public sector to properly ascertain implementation progress. These critical features are derived as a building fabric for the implementation of e-government in Malawi which would facilitate the success of the e-government initiative. In this regard, the strategy sets a new direction for the e-government agenda in Malawi within the public sector besides streamlining existing implementation challenges.

1.6 Objectives of the Study

In order to comprehensively address the research question and the central claim of the study, the project focused on the following specific objectives;

- a) Explore the key challenges in the implementation of e-government
- b) Compare e-government implementation policies in Malawi and Mozambique
- c) Examine best practices for successful e-government implementation
- d) Establish a strategy for successful implementation of e-government in Malawi

1.7 Data and Methods

This study has largely been a desk research. In this regard, the study involved a thorough comparative analysis of secondary data on e-government implementation policies in Malawi and Mozambique in order to establish policy success factors. The study also involved an examination of best practices in e-government implementation by reviewing relevant literature on the subject matter (e-government) from books, policy papers and academic journals. In order to validate the findings, the study also gathered primary data from the Department responsible for e-government implementation in Malawi through questionnaires and face-to-face interviews with key officials focusing on existing e-government related policies and current implementation challenges. The study therefore used secondary data, which was analyzed qualitatively, and primary data that was analyzed using content analysis methods to support the central claim of the thesis.

1.8 Study Outline

This study has been presented in four broad sections covering different aspects of the project. The first section covered the introduction to the study while the second chapter explored existing literatures with regard to e-government development and implementation models, trends in e-government and the status of e-government implementation in Malawi. The third section on the other hand presented findings and analysis of the study with regard to e-government implementation challenges, a comparative assessment of e-government policies between Malawi and Mozambique, delineation of best practices in e-government implementation besides

establishing a strategic direction for the e-government implementation in Malawi. Finally, section four presents a profound discussion on the study findings, recommendations and conclusion in addition to setting a direction for future studies.

SECTION TWO – LITERATURE REVIEW

2.1 Concepts and Definitions

Across the world, governments have unprecedentedly embarked on a journey towards e-government. Besides the Holmes (2001) definition presented in the introduction, e-government is also defined by the World Bank (2005) as the use of information technology to transform the relations between government and its stakeholders for better and improved delivery of services. On the other hand, Brown & Garson (2013: 13) define e-government as the “use of internet to deliver government programs and services to the citizens”.

Based on the definitions above, the main focus of e-government may be viewed to be the provision of efficient and effective services to the citizens and the business sector in order to improve public and private value of government services. Furthermore, the definitions entail that e-government provides opportunities for the citizens to participate in decision making processes and ultimately, influence government decisions that affect the general public. Also, it is worth noting that e-government is conceptualized as a tool for enhancing cooperation among government agencies through harmonization and exchange of valuable information.

2.2 Models of E-government

In order to assess the status of e-government development and implementation, researchers use various conceptual stage models. A synthesis of four key conceptual stage models was pertinent for this study. These include the UN Model, Layne & Lee Model, Siau & Long Model and the Al-Nuaim Model. Firstly, the UN Model conceptualizes a five-stage Model which presents five stages in the development of e-government (UN, 2008). The stages are linearly conceptualized and include; the emerging presence, enhanced presence, interactive,

transactional and seamless/connected. These stages represent key phases in the development and implementation of e-government initiative that governments strive to achieve one after another. On the other hand, Layne & Lee (2001) present a four-stage Model of e-government development and implementation focusing on the ability of government to harness technology in its departments and agencies. The four-stage Model according to Layne and Lee comprises the catalogue, transaction, vertical integration and horizontal integration stages. Like the UN five-stage Model, the Layne and Lee four stage Model also requires the government to put in place measures to ensure attainment of the special technological characteristics at every stage of e-government development and implementation.

Slightly different from the above models, Siau & Long (2005) propose a five-stage Model for e-government development and implementation focusing on government web characteristics. These stages include the web presence, interaction, transaction, transformation and e-democracy. Unlike the UN as well as the Layne and Lee models, the ultimate goal of e-government development and implementation under Siau and Long is the attainment of e-democracy which according to Brown & Carson (2013, 8) involves “the use of ICT in the democratic process” which may include e-campaigning, e-voting as well as e-activism. On the one hand, Al-Nuaim (2011) presents a modified five-stage model for e-government development and implementation. The Al-Nuaim five-stage Model is a synthesis of the early models and covers both the technological and web characteristics. The model is presented by the following stages in the development and implementation of e-government initiative; the web presence, one-way interaction, two-way interaction, transaction and service integration. In all these conceptual frameworks, the models entail that attainment of key features in one stage provides a necessary condition for the next stage. In this regard, it can be noted that the progress in e-government

development and implementation is measured based on the achievement of the pre-requisites at every stage of development.

Taking a reflection at the above four e-government development and implementation models, it should be pointed out that the models exhibit both merits and demerits. Firstly, the models present a simplified approach towards the implementation of e-government which is highly applicable to developing countries. For instance, they provide the basic features required from one stage to the other in the e-government process. Furthermore, the models provide a set of guidelines and specifications on technological requirements for information integration between and among different government agencies to enable sharing of service based information. This ultimately, enables government agencies to install the required technological systems towards the establishment of the One Stop Centre for the provision of government services. Also, the stage models set a cut-off point for self agency evaluation in terms of achievements made towards the implementation of e-government initiative. Overall, the stage models provide a unique and unified way of not only implementing e-government initiatives but also benchmarking the progress made across government agencies as well as countries.

Despite the above merits, the models are too simplistic taking into account the dynamics and sophistications associated with the modern technology. For instance, the implementation of e-government cannot completely be reduced to stages because some technologies contain features with applications that are required across different stages. This means that, using modern technologies, several stages in the development and implementation of e-government agenda can be attained at one stage contrary to the conceptualization of the stage models as highlighted above. Also, the stage models cannot be perfectly applied in the developed countries. For instance, apart from the fact that most developed countries use sophisticated technologies

that defy the concept of stage based approaches as noted above, it should also be noted that most of these countries have gone beyond a maximum five stages of seamless data, e-government and service integration as stated in final stages of UN Model, Siau & Long and Al-Nuaim stage models respectively. For instance, the application of e-government services in countries such as South Korea has gone beyond stage five features with regard to integration.

Notwithstanding the existing demerits for the stage models, the models have gained ground in the evaluation of e-government initiatives by the United Nations Development Program focusing on web features and characteristics.

As illustrated in the discussion, the models have several characteristics in common with minor differences which could be attributed to changes in technology with time from the early developers to the latest model developers. The table below provides a synthesized summary of the four models and some key characteristics at different stages.

Table 1: Summary of E-government Stage Models

Model	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
Layne & Lee 4-stage Model (2001)	Catalogue <i>Online presence</i>	Transactional <i>Services & forms online</i>	Vertical integration <i>Integrated local systems</i>	Horizontal integration <i>Integration across sectors</i>	-
Siau & Long 5-stage Model (2005)	Web presence <i>Technology jump</i>	Interaction <i>Technology jump</i>	Transaction <i>Culture reap</i>	Transformation <i>Political reap</i>	E-democracy Government services
UN 5-stage Model (2008)	Emerging presence <i>Basic website</i>	Enhanced presence <i>Govt. portal</i>	Interactive <i>2-way interaction</i> <i>Searchable sites</i>	Transactions <i>Enabled transactions</i>	Seamless / Connected <i>Full network with government</i>
Al-Nuaim 5-stage Model (2011)	Web presence <i>Static information</i>	One-way interaction <i>Off-line services</i>	Two-way interaction <i>Online services</i>	Transaction <i>Online transactions</i>	Service integration <i>One stop Centre</i>

The e-government stage model illustration in table 1 above shows that the key focus of the e-government development and implementation is the link between the government and end users of government services which are the citizens and members of the private sector. At the same time, there is a focus on the need to streamline services from different government departments towards the creation of One Stop Centre for the delivery of government services. These features as embedded in the stage models derive the basic forms of e-government application namely; government to government (G2G), government to business (G2B) and government to citizens (G2C) which are discussed later in section 2.3.

As noted by Nguluwe (2007) the stage model presents an important tool in evaluating the development of e-government in any given context. For instance, the UN e-government readiness reports configure country level readiness for e-government based on web and technological characteristics which are illustrated by the stage models. Makoza (2013) synthesized the stage models and proposed a conceptual framework of understanding e-government development and implementation based on the web characteristic features within the confines of four phases of e-government development. This conceptual framework provides a simplified tool for determining the level of e-government development in a given country as shown in table 2 below.

Table 2: Conceptual Model for E-government Development

Phase	Phase 1	Phase 2	Phase 3	Phase 4
Variable	Presence	Interaction	Transaction	Integration
Web Elements	<ul style="list-style-type: none"> • Static pages • Catalogue • Presentation • Link to sites 	<ul style="list-style-type: none"> • Service online • Downloadable forms • Email services • One-way 	<ul style="list-style-type: none"> • End to end interaction • E-transactions • Cross department 	<ul style="list-style-type: none"> • Integrated cross functions • One stop shopping Centre for

		interaction	information <ul style="list-style-type: none"> • Database support • 2-way interaction 	citizens & private sector <ul style="list-style-type: none"> • Fully networked govt. (internal/external)
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SOURCE: Makoza (2013)

The above conceptual model illustrates that phase 1 in e-government development and implementation involves the establishment of online government services under which information related to government and government agencies is published online. Once this process is complete, it provides a one-way communication process in which the citizens and the business community are just recipient of government information and services but cannot undertake any online transactions. On the other hand, phase 2 involves the provision of government services to support offline delivery systems. Under this configuration, citizens may access downloadable official forms for service applications or contact government agencies through e-mail and later visit the offices physically (Chan et al., 2008). Based on the foregoing, it can be noted that the first and second phases of e-government development and implementation under this conceptual model are equivalent to the presence and interaction stages in the e-government stage model approach.

Unlike phases 1 and 2, phase 3 involves some levels of complete online service provision in which the citizens and members of the private sector are not required to physically visit government offices for the completion of some government transactions. Thus, all the necessary transactions may be executed online. This phase also involves sharing of service based information between and among government agencies as well as harmonization of technology to support cross functional agency service and information proliferation (Al-Nuaim, 2011). The

final phase (phase 4) on the other hand involves both vertical and horizontal integration of services within and across government agencies. Vertical integration relates to integration between and among different agencies of government while horizontal integration refers to the integration that occurs across different functional units within a government agency (Brown & Garson, 2013). Under phase 4, all government services are presented together in a seamless and One Stop Centre approach and services that involve application or registration processes can be executed through online electronic applications. It is also evident that the third and fourth phases in the conceptual e-government development and implementation model correlates to the synthesis of the transaction, integration and seamless/connected stages in the stage model. Ultimately, the conceptual framework provides a simplified form and comprehensive overview of understanding the stage models in the development and implementation of e-government.

2.3 Forms of E-government Applications

Delivery of government services under the e-government initiative can be carried out in various forms. Fang (2002) identified eight (8) forms in which e-government can be applied. These application forms include government to citizen (G2C), citizen to government (C2G), government to business (G2B), business to government (B2G), Government to employee (G2E), government to government (G2G), government to non-profit organization (G2N) and non-profit organization to government (N2G). These applications demonstrate a holistic two-way process in which the government provides information to its various stakeholders on different services while at the same time the stakeholders influence the government in terms of services provided to the end users. This application perspective of e-government is significantly relevant in countries such as South Korea, UK, USA, France, Singapore, and Switzerland among others where the initiative has been fully implemented to advanced levels.

On the one hand, AlShihi (2006) provides synchronized forms of e-government applications covering four (4) key pinnacles. These forms of applications include; government to government (G2G), government to business (G2B), government to citizens (G2C) and government to employee (G2E). As noted by Pizzella (2005) and Lee (2010) the application of e-government in the public sector focuses largely on three thresholds namely the G2G, G2B and G2C.

2.3.1 Government to Government (G2G)

The G2G involves the vertical integration between and among different government agencies in the delivery of services largely through a One Stop Centre. As noted by AlShihi (2006), many government service delivery processes require close collaborations as well as input from other government agencies. Hence, the G2G application is an approach aimed at promoting inter-governmental collaborations in the delivery of services to the citizens and the private sector. Inter-government collaboration is a critical feature in advanced phases of e-government development and implementation which requires streamlining of information, technology and data infrastructures across different government agencies towards total service delivery integration. As described by Pizzella (2005), a harmonized G2G arrangement involves creation of government portal in which end-users find all the necessary information regarding government agencies providing similar, related or complementary services. This arrangement enhances government efficiency and effectiveness in service delivery and enables the citizens and the private sector to access services from different government agencies without actually visiting the individual agencies.

2.3.2 Government to Business (G2B)

The G2B approach involves the use of electronic transactions and the development of electronic market place for government services as well as purchases from the private sector (Haniff, 2006: 11-12). This application covers the execution of all business related government services which include business registration, lodging taxes, electronic procurement, tourism information, renew of business registration and applications of licenses among others. G2B services are highly important in the attraction of FDI and flourishing of the business sector as it reduces barriers and other unnecessary transactions costs involved in the process of doing business with the government. In addition, G2B has a high potential in reducing corruption by eliminating unnecessary discretionary powers among agency executives and personal to personal interactions between business magnets and government officials (AL-Hussain et al., 2013).

2.3.3 Government to Citizen (G2C)

The G2C configuration involves creation of front office electronic information systems directed towards the provision of comprehensive electronic services to the citizens and stakeholders. This includes online provision of information and services of government or its agencies that can be accessed through the websites (Brown & Carson, 2013). The main goal of the G2C application is to provide the citizens with accurate real-time information and options for accessing government services. As noted by AlShihi (2006), the majority of government online services fall within the confines of G2C. In this vein, Brown & Carson (2013) advocate the need for government to ensure that e-applications are user friendly in order to stimulate high usage rate among the citizens including those with limited knowledge in ICT. This also requires government to put in place deliberate measures meant to promote ICT diffusion in order to

reduce the digital divide among members of the general public which ultimately promotes citizens participation in e-applications.

Table 3 below shows a summary of the information exchange within the frameworks of G2C, G2B and G2G as drawn from Fang (2002).

Table 3: Information Exchange under G2C, G2B & G2G

E-government Application	Information	Online communication	Transaction
G2C	Provision of information to citizens regarding taxes, business licenses, registration, laws, policies, political programs, government plans, development activities etc.	Discussions on administrative processes, government inactions, contributions on government decisions, communications with political as well as government agency authorities etc.	Online delivery of services, posting of results, e-voting, e-participation, e-engagement etc.
G2B	Provision of information to citizens regarding taxes, business licenses, registration, laws, policies, political programs, government plans, development activities etc.	Discussions on administrative processes, government inactions, contributions on government decisions, communications with political as well as government agency authorities etc.	Online delivery of services, posting of results, e-accounting, e-auditing, e-procurement, e-shopping, e-registration, e-licensing, e-renewal etc.
G2G	Exchange of information among government agencies and different hierarchical levels regarding administrative acts, laws, policy making, data, approvals, decisions etc.	Exchange of information among government agencies and different hierarchical levels, discussion and negotiation, decision making, sharing of best practices etc.	Intra-organizational work-flow, exchange of data, exchange of policy programs, online decision making, knowledge management etc.

SOURCE: Fang (2002)

As illustrated in table 3 above, some government information serves more than one application by servicing both the citizens and the private sector. This is evident under information and online communications columns where information provided by the government serves both parties. Also, there are minor differences in the transaction information for both the citizens and the private sector. On the other hand, information exchange, online communication and transaction under the G2G as outlined in the table are solidly meant to enhance

collaborations in the operations of the government agencies in order to serve both the citizens and the private sector in an efficient and effective manner.

2.4 Trends in E-government

The e-government initiatives began in developed countries as a tool meant to promote efficient service delivery and citizen participation (Bwalya & Mutula, 2014). Notably, countries such as the USA, France, UK, Japan, Sweden, and Chile among others were the early initiators of e-government initiatives due to their comparative advantages in ICT as well as better policy direction (Prabhu, 2012). Recently, several countries in Asia, such as South Korea, Singapore, Taiwan and Malaysia, have also made strides in e-government implementation owing to their advancement in ICT development, political commitments and sound governing policies (Brown & Garson, 2013; Prabhu, 2012). Brown & Garson (2013) explain that e-government implementation successes in developed countries are largely dependent on government policy initiatives and strategic direction supporting investments in ICT and human resources prior to e-government implementation. From the foregoing, it may be noted that the appropriateness of e-government policies and strategies are critical factors not only in building the foundation for e-government adoption but also supporting the development of necessary infrastructures for the sustainability of the initiative in the long run.

Like other continental governments, African governments have embarked over the past decade on the world trend towards the implementation of e-government. This is evident in the UN E-government Readiness Report (2005), which shows that most governments in Africa have developed initiatives for e-government implementation. On the same, Fonou, Vicent & Rannyai (2014) note that most governments across the African continent developed web sites and portals in order to promote reasonable access to government information and services by citizens and

business sector. This shows that the e-government initiative has been adopted in some African countries as a tool for improving government service delivery both to the citizens and the private sector.

Notwithstanding the above, most countries in Africa have been unsuccessful in the implementation of e-government initiatives. Studies by Prabhu (2012) and Nkohkwo (2013) established that lack of ICT infrastructure, human resources and the digital divide have negatively affected e-government implementation in Africa.

Within the framework of Africa, Malawi has been one of the countries that have taken steps in adopting the e-government agenda. It is important at this stage to explore the status quo of e-government implementation in the country over a decade of implementation.

2.5 Status of E-government in Malawi

In the case of Malawi, e-government initiative was adopted in 2004. Thereafter, the government declared ICT as a driving force for the public sector (MGDS Report, 2006). Nevertheless, an assessment by Mtingwi and Belle (2012: 61) note that Malawi's "e-government hovers in the early stages of web presence and one-way interaction". In this context "Web presence" and "one way interaction" refers to the stages of e-government implementation in which government agencies only create and provide information on their web sites without any interactions in service provision with the citizens and the business sector. Similarly, studies by Makoza (2013) and Bwalya & Mutula (2014) show that government ministries and departments in Malawi have not rolled out the online delivery systems for services to the citizens and private sector. In overall, this may be evidence showing that the government has not been able to achieve key milestones in the delivery of efficient services to the citizens and private sector.

Makoza (2013) sampled out the government and some government agencies in Malawi to assess the application of e-government as well as level of e-government development and implementation. In addition to Makoza's sampled agents, this study provides an additional government department, the Lilongwe City Council, to the list of departments. Table 4 below shows the synthesized outcome in line with e-government forms of application.

Table 4: E-government Applications in Malawi

Ministry/Department	Website (URL)	Category of e-government Application	Description of services
Malawi government	www.malawi.gov.mw	G2C & G2B	List information for the government and links to other government departments
Department of public procurement	www.odpp.gov.mw	G2B	Provide a list of public tenders to businesses
Department of police	www.communitypolicing.mw	G2C & G2B	Provide information and online services
Malawi parliament	www.parliament.gov.mw	G2C & G2B	Provide information for citizens and business
Lilongwe City Council*	www.llcitycouncil.org	G2C , G2B G2G	Provide general information on services to the citizens, business and other government agencies
Ministry of foreign affairs	www.foreignaffairs.gov.mw	G2B & G2G	Provide information and services for business and government
Ministry of finance & economic planning	www.finance.gov.mw	G2C & G2B	Provide information for the citizens and businesses
Ministry of trade & industry	www.trade.gov.mw	G2C & G2B	Provide information for trade and businesses

SOURCE: Makoza (2013)

An evaluation of the website information from the above sampled ministries and departments vis-à-vis the conceptual model as well as a synthesized stage model of e-

government development, establish that e-government implementation in Malawi is still in infancy stages. This point of view is clearly illustrated in table 5 below.

Table 5: Status of E-government Implementation in Malawi

Ministry/ Department	Stage 1	Stage 2	Stage 3	Stage 4
	Presence	Interaction	Transaction	Integration
Malawi government	Website & information available	Partial -downloadable forms & email system	None	None
Department of public procurement	Website & information available	Partial - downloadable forms, documents & email system	Limited -procurement database	None
Department of police	Website & information available	Partial –downloadable forms & reports	None	None
Malawi parliament	Website & information available	Partial –downloadable forms & email system	None	None
Lilongwe City Council*	Website & information available	None	None	None
Ministry of foreign affairs	Website & information available	Partial -forms, booking VIP & email system	None	None
Ministry of finance & economic planning	Website & information available	Partial -downloadable documents & email system	None	None
Ministry of trade & industry	Website & information available	Partial -downloadable documents & email system	None	None

Drawing from the above evaluation of sampled government agencies, it can be evidenced that in overall, Malawi rests within the first two stages of e-government development and implementation. Like other African countries, several challenges are attributed for the failure of e-government in Malawi to gain ground after a decade of implementation. Studies by Mtingwi & Belle (2012), Makoza (2013) and Bwalya & Mutula (2014) attribute the limited progress to lack of financial resources, ICT infrastructure and low levels of ICT skills as well as the digital divide

in regard to the diffusion of ICT knowledge in the country. These factors have been clearly singled out as the major obstacles towards the successful development and implementation of e-government in Malawi.

Nevertheless, other critical issues, such as, e-government implementation policy and strategy have received limited attention in the past studies which according to Brown and Carson (2013) are critical elements for the success of any e-government initiative. Also, the past studies have not undertaken a comparative analysis of Malawi's e-government development and implementation policies with other developing countries in order to draw insights and lessons from success factors in e-government. For instance, a neighboring country, Mozambique, has almost similar conditions to Malawi, yet the country has made remarkable progress in the implementation of e-government. According to the UN E-government Survey (2012: 16), Mozambique is rated highly in the Southern African Development Community (SADC) region in the provision of online services. Furthermore, existing studies have not dwelt much on contextual challenges that have negatively affected implementation of e-government in Malawi. In fact, most studies have largely focused on financial, ICT infrastructure, ICT skills and digital divide (Mtingwi & Belle, 2012; Makoza, 2013; and Bwalya & Mutula, 2014). Unlike these studies, this research further explored contextual challenges impeding upon the e-government initiative in Malawi.

Against such background, this research project provides a rare opportunity for a cross boarder comparative analysis to draw lessons from the success factors in e-government agenda in order to establish an appropriate strategy for the successful implementation of the initiative in Malawi. This is besides the exploration of broader contextual e-government implementation challenges in Malawi as drawn from local experts involved in the implementation process.

SECTION THREE – FINDINGS AND ANALYSIS

3.1 Introduction

This section presents the findings and analysis of the research project taking into accounts both secondary and primary data sources. The section is outlined thematically in accordance with the study objectives in order to provide profound discussions on the key areas of the study and adequately address the research question and hypothesis. Therefore, the section undertakes analyses on the challenges for e-government in Malawi, comparison on e-government policies between Malawi and Mozambique, best practices in e-government implementation and overall analysis to inform policy and strategic direction for the successful implementation of e-government in the country.

3.2 Challenges for E-government Implementation in Malawi

There are several challenges hindering the implementation of e-government in Malawi. Most existing literature on e-government implementation in Malawi have concentrated on challenges with regard to financial resources, ICT skills, low level of ICT infrastructural development as well as digital divide (Mtingwi & Belle, 2012; Makoza, 2013; Bwalya & Mutula, 2014). The foregoing factors have, without doubt, impacted upon the implementation of e-government in Malawi negatively. Nevertheless, this study has established several other contextual factors that have hampered the success of e-government initiatives in Malawi as derived from the responses on the research questionnaires and face-to-face interviews with officials from the department responsible for E-government implementation in Malawi. These challenges include; lack of political will, change management, collaborations problems, culture and citizen participation as well as poor policy direction.

3.2.1 Lack of Political Will

Implementation of e-government initiative requires a strong support and commitment from the political leadership. As Heeks (2002a) argues, the success of e-government implementation depends largely on political support. This support may include the provision of resources, development of necessary legislation and provision of general leadership. Also political support ensures that there is enough budgetary allocation for e-government activities. The importance of political support in e-government process is summed up by Park (2008) who argues that nearly all successful ICT projects such as e-government initiatives have been championed by committed and visionary political leadership with the ability to mobilize necessary resources towards the implementation process. The success of e-government in South Korea, for instance, is largely attributed to the role of political leadership. According to Song Hee-joon (p.10), political leadership under different administrations in South Korea directly supported the e-government process from its inception. For instance, under the administration of Roh Moo-hyun, the Government Innovation Decentralization Committee which was responsible for the implementation of the e-government initiative was reporting directly to the President. The political support therefore enabled South Korea to put in place necessary policies, governance structures and reasonable budgetary support for the success of the e-government agenda.

On the contrary, this study found that political support for the implementation of e-government in Malawi has been erratic and largely donor driven. For instance, the National ICT policy, which provides the mandate for ICT driven initiatives including e-government, was drafted in 2006. However, the implementation of the policy awaited approval of the Malawi National Assembly (Parliament) which stalled until 2013 due to changes in government and political leadership. Thus, it took nearly six years for the policy to be finally approved by

Parliament in September, 2013. On the donor perspective, the study has established that the approval of the policy came to pass owing to extensive pressure from the UNDP which sought the approval of the policy in order to release funds to support the development of Malawi Master ICT Plan (2013-2024).

Also, officials at the Department of E-government reported that the department has, in the recent financial years, been poorly funded rendering it incapable of meeting its core functions of providing guidance to government agencies regarding the e-government project. Besides, in the 2015/2016 financial year, it was reported that the e-government initiative has been heavily hampered following the approval of Parliament to increase charges on internet services by 10%. Invariably, this approval on the new cost structure for internet services defeats the very government purpose of ensuring high accessibility to government information and services through online delivery systems as envisioned in the National ICT Policy.

3.2.2 Change Management

Implementation of e-government involves re-alignment of government agency's functions and significant changes in the way government agencies carry out their duties from manual to electronic systems. In this regard, Holland et al. (1999) argue that the initiative requires strong employee buy-in to ensure that adjustment to the new service provision approaches are dully embraced by both top management and other employees in public agencies. In order to ensure successful transition in service delivery processes, Nkohkwo (2013) also argues that both members of management and key employees are required to undergo institutional tailored ICT trainings in order to enhance their skills and acquire relevant knowledge in the e-services applicable to their respective agencies. For instance, as reported in the United Nations Public Service Awards (2003 - 2011), the State of Andra Pradesh in India,

had successfully implemented the e-government initiative in procurement services by ensuring that all public agencies involved in the process had their key employees undergo specialized trainings in the new systems. In part, as Holland et al. (1999) have argued, the ICT trainings and buy-in programs iron out anxieties and fears among employees which are associated with the adoptions of electronic services thereby enhancing institutional acceptability and reduction of resistance in the implementation processes.

Unlike the above development, the study found that e-government in Malawi has been characterized by strong resistance by top management as well as employees. In particular, officials at the E-government Department pointed out that top management members in different government agencies consider the new approach as a threat to their authority and discretionary powers in the execution of their duties. This has, largely, been the case due to limited technical knowhow in ICT among most managers which made them presume that they would become subservient to junior employees with advanced modern technological skills if the online systems are fully implemented. Similarly, it was pointed out that most employees in government agencies believe that the online service delivery system would render them jobless as most online services will require less manpower.

Also, officials at the E-government Department explained that the off-line services provide public sector employees with potential grounds for kick-backs hence they are too resistant to fully adopt the new online service delivery processes. Overall, these fears point to the failure by the agency responsible for the e-government implementation in Malawi to encourage and establish necessary training and buy-in programs across government ministries and agencies, targeting top management and key members of staff in order to reduce possible staff resistance in the implementation process.

3.2.3 Lack of Collaborations

Most studies on e-government show that collaborations between the implementing body and other actors mainly, public agencies, the private sector and training institutions is critical for the successful implementation of e-government initiative. This view has been echoed by Allen et al. (2001) arguing that collaborations between the public and private sector provides leverage to the former in the form of skills and knowledge transfer, resource mobilization and partnerships in the implementation of e-government projects. Also, Brown and Garson (2013) underscore the importance of collaborations arguing that training institutions may provide support to government and its agencies with tailor made training programs to support government employees, the citizenry and other stakeholders thereby promoting the diffusion of ICT skills and knowledge both in the public sector and the general public. According to the E-government Survey (2014), collaborations in e-government may involve formation of joint partnership in the implementation process or advisory committee to provide direction in e-government initiatives. In this regard, a typical case of collaboration can be drawn from South Korea's experience as reported by the Ministry of Public Administration and Security (www.mopas.go.kr). According to the report, the Korean Technical Advisory Team (TAT) on e-government implementation was made up of cross cutting institutions namely; the National Information Society Agency, the Korea Internet and Security Agency, Electronic and Telecommunications Research Institute, and consulting group from leading experts in the field of Law, Policy, Management and Information Technology. This approach has also been singled out as one of the key facets for the success of e-government implementation in South Korea.

Contrary from the above approach, this study established that e-government implementation in Malawi has largely been spearheaded without proper collaborations not only

with the private sector but also other government agencies. This view was evident in the interviews with officials at the E-government Department pointing out that most government agencies in the country are implementing the e-government initiative as sole financiers. In this case, the private sector players are only involved as contractors other than developing cost-effective collaborative partnerships as emphasized in the E-government Survey (2014).

Furthermore, the study found that due to the institutional set-up of the E-government Department, implementation of e-government is solely done without proper coordination with key players in the ICT industry, both from the public and the private sector. For instance, the key players in the provision of ICT infrastructure within the public sector in Malawi include the MTL, MPC and MACRA. Also, there are two key private providers of ICT infrastructure namely TNM and AM. All these key players are left out in the implementation process yet they are key organs that can positively accelerate the successful implementation of the e-government initiative in Malawi if afforded a chance to play a meaningful role. They can either act as supporting partners to the E-government Department or providing advisory services to the department.

In addition, the study found that there is limited linkage between the public sector and training institutions including government training agencies and public universities with regard to e-government programs. Thus, while the government has three training institutions namely; MIM, SDI and TEVET targeting employees in the public sector, the study found that, the three (3) institutions have not been aligned to provide ICT related trainings to the public sector employees. Also, interviews responses from the E-government Department officials show that the Department does not have any formal collaborative relationship with public universities, the Malawi University of Science and Technology (MUST) in particular and the public sector training institutions. Such kind of collaborations would have enabled the Department to harness

knowledge sharing with the public sector on the emerging technologies in order to keep the public sector abreast with the modern technologies and facilitate adaptation of public sector ICT programs within the framework of the e-government agenda.

3.2.4 Culture and Citizen Participation in Electronic Services

Some studies have shown a correlation between people's culture and their participation in the use of online services. For instance, in a study done by Awadhi and Morris (2008) in Kuwait, they established that the citizenry are more inclined towards face-to-face interaction in accessing government services owing to their cultural backgrounds. The authors argue that the citizenry value tangible transactional relationships with government officials due to long standing cultural attributes as opposed to electronic means. Also, similar findings were established earlier in a study by Heeks (1999) in India. In his analysis, the study revealed that personal relationships and the general need for face to face service transactions have a negative impact in the utilization of the online services. Heeks argued that interpersonal transactions, in the context of India which are embedded in cultural backgrounds, provide value addition and service satisfaction among members of the society thereby affecting the uptake levels of e-services.

Similar to the above cases, e-government implementation in Malawi has also been trampled upon by the low level of patronage and participation due, in part, to the local culture. The study found that most Malawians have little trust in the emerging technologies, and traditionally, the people value interpersonal transactions particularly in matters that involve financial exchanges. For instance, the officials from the E-government Department in Malawi underscored that some banks in the country such as the National Bank of Malawi, Standard Bank, Opportunity Bank, Inde Bank and Malawi Savings Bank introduced some online and mobile banking services which have been marred by low patronage by the general public. Also, Multi-

choice Malawi, TNM and AM introduced mobile money transfer services for the payment of monthly subscriptions for television programs and settlement of utility bills. Nevertheless, these services have also received low patronage by the public including those in the urban areas despite having access to the modern technologies and ICT skills. For instance, when the researcher visited Multi-choice Malawi offices in Lilongwe on 30th January, 2016, it was sickening to find long queues of people waiting to pay monthly subscriptions for their television programs, yet the same service can be accessed using mobile or banking services. Interviewing some participants, it became clear that people have more trust in the face-to-face transactions which in part point to the local culture regarding to financial transactions. The low patronage in e-services provided by the private sector has a negative impact on some public agencies to take e-government initiatives seriously arguing that it will be costly to acquire the technologies for e-services that would not be used by the general public as attested by some profit driven private sector experiences.

3.1.5 Policy Direction

The level of policy requirement for the implementation of various e-government services has been cited by several studies as being very important for the success of e-government initiatives. Prabhu (2012) argue that the actual processing and implementation of e-government services require a wide range of policies, laws and other legislative changes in order to support the new mode of electronic delivery which includes electronic signatures, data protection, computer crime, electronic archiving, data digitization and access to information among others. Similarly, Holmes (2001) had argued that transacting with government agencies under the e-government framework require several processes such as signing a contract or digital agreement which must be recognized by law to ensure that transactions are not only secure but also binding

and enforceable. Further to the above, Brown and Garson (2013) underscore the importance of privacy and security policies, in the provision of safety and protection for the use of e-services by the business and the general public. For instance, Kumar et al. (2007) point out that the government of Canada developed a special policy to safeguard user security and privacy in response to perceptions from the wider society on the insecurity posed by the e-services and other online delivery systems. One of the key policies that were implemented by the government of Canada was the Privacy Impact Assessment Policy, which Kumar et al (2007) believed had contributed positively for the increased utilization of online services. Thus, mostly, successful implementation of e-government is accompanied by the implementation of necessary laws, policies and other legislations to support e-transactions.

In respect of policies, the study found that Malawi has no policies in place to directly safeguard and support electronic transactions. For instance, at the time of this study, officials from the E-government Department reported that the only main policy available, recognizing the e-government initiative, has been the National ICT policy. Nevertheless, the overall objective of the policy as envisaged under article 2(3) of the policy is the facilitation of ICT development in various sectors of the economy and not regulations of online services offered under the e-government initiative. Generally, the absence of relevant policies to support and safeguard the provision of online services in Malawi underscores the major concerns of most government agencies with regard to the nature of security and privacy on their agency information made available on websites and other online delivery systems. Also, unavailability of other key policies in Malawi such as the Access to Information Policy (ATIP) has rendered the general public incapable of making the government accountable for most of its activities that otherwise could have been made available for public consumption through online services. In the same

vein, failure for the country to pass into law the proposed Electronic Transactions Bill (ETB) which provides legal safeguards on the use of online services by government agencies, citizens and the private sector renders the e-government initiative difficult to enforce in the public sector.

3.3 Comparative Analysis of E-government Policies in Malawi and Mozambique

3.3.1 E-government Policies in Malawi

Implementation of e-government project in Malawi has been guided by a number of policies and Acts. These include the Communications Act, Science and Technology Act and the ICT Policy. The Communications Act was enacted in 1998 long before the adoption and implementation of the e-government project. The Act is under the direct mandate of the Ministry of Information and Communications (MIC) which was responsible for the early development of e-government through the Department of Information System and Technology (DIST). In addition to the Communications Act, the Malawi government approved the Science and Technology Act in 2003 which was also seen as a partial drive in support of the e-government agenda. The Act provided a framework for the promotion of technology in the country which had a very limited uptake. For instance, in 2005, the technological uptake in Malawi measured by the population wide internet access was at 0.07% (ICT Policy, 2013: 2). This meant that the country needed to enhance a sound legal framework to enhance the diffusion of technology in the country in both the urban and rural areas.

Besides the Acts above, the government of Malawi developed an ICT Policy in 2006 to provide mandate on ICT initiatives in the country. The ICT Policy became applicable in September, 2013 following approval by the Malawi Parliament for eventual implementation. Unlike all other pieces of legislations, the ICT Policy placed the implementation of e-

government in the public sector among its key priority areas in order to improve delivery of services to the public and private sector. Also, the policy enshrined the establishment of the E-government Department to oversee and lead the implementation of e-government activities in the public sector (ICT Policy, 2013). The development of the ICT policy and creation of an overarching department responsible for e-government implementation in the public sector showed that the country was geared to align government efforts on the e-government initiative in order to ensure the successful implementation of the e-government project in all government agencies. Thematically, the ICT Policy outlines two policy statements with regards to e-government implementation as illustrated in the table below.

Table 6: E-government Policy Statements

STATEMENT CATEGORY	POLICY STATEMENT INFORMATION	STRATEGIC DIRECTION
Policy Statement 1	Government shall deploy ICTs to facilitate effective and efficient public service delivery and interaction between the public service and citizens of Malawi, companies, government institutions, cooperating partners and other stakeholders of the Government of Malawi.	<i>None*</i>
Policy Statement 2	Government shall deploy ICTs in order to enhance oversight functions in Government.	<i>None*</i>

Based the on the above table, it can be noted that the e-government policy statements recognized the importance of e-government services in the enhancement of government accountability, transparency, efficiency, effectiveness, and promotion of interactive relationship with the general public, business community and other government stakeholders. Nevertheless, the policy statements under the e-government do not provide a strategic direction on how the broader agenda of e-government in the public sector will be realized. As outlined later under

section 3.3.2, this aspect had given rise to a critical strategic gap in the implementation of e-government initiative in the public sector in Malawi.

Arguably, the availability of the above pieces of legislations could be perceived at first glance as favourable conditions for the adoption and implementation of e-government. However, critical analysis of the two Acts and the ICT Policy shows that the documents have limited impact in enhancing the e-government project in Malawi. For instance, the main mandate of the Communications Act is the provision of regulatory framework for the operations of media houses (both the print and electronic) and the communications industry in general. Thus, the Act does not focus on e-government as such even though the initial stages of the project were coordinated by the MIC. Similarly, the Science and Technology Act was enacted as a tool meant to promote and spearhead the diffusion of knowledge in Science and Technology through enhancement of ICT knowledge in the country at large, not the public sector per se.

Furthermore, analysis of the ICT Policy in Malawi shows that the policy mainly focuses on the overall facilitation of ICT development in various sectors of the economy (MGDSR, 2006). As noted in table 6, the policy does not provide a strategic direction for the implementation of e-government agenda to achieve goals of the e-government initiative as one of the ICT Policy's priority areas. Thus, the policy does not provide a clear mandate and common strategic approach for e-government implementation in the various government agencies in the public sector. This policy direction gap has resulted in the failure to harmonize e-government adoption and implementation in the public sector leading to several inconsistencies. For instance, in the study by Makoza (2013), he established that government agencies and departments in Malawi are implementing e-government initiatives without a clear direction. Mention should be made, as a matter of reference, of two government agencies; the LWB and the ESCOM, whose

drive to implement e-services in customer and business related programs have been entirely driven by institutional needs to enhance customer relations services with the general public and the business community other than drawing mandate and direction from the ICT Policy or the E-government Department.

In order to establish the role of the ICT Policy in supporting the general implementation of e-government, this study undertook a comparative analysis of the Malawi ICT Policy with that of Mozambique. The study selected Mozambique for comparative analysis on policy considering that the country has of recent made tremendous achievement in e-government implementation as compared to Malawi despite the two countries beginning the initiative in the related period of early 2000. For instance, the UN E-government Survey (2012: 16) rated the country highly in the Southern African Development Community (SADC) region in the provision of online services. Also, as a neighboring country, Mozambique shares common features in the operations of governments, public sector agencies, political systems, economic status and traditional backgrounds among others. This implies that it is easy for Malawi to adapt lessons and success factors in the e-government implementation from Mozambique as a peer country with a relatively similar economic and political standing. In this regard, this comparative analysis was meant to ascertain the extent to which the ICT Policy in Malawi falls short in the provision of a clear strategic direction with regard to the implementation of e-government initiative in the public sector, an area which has not been adequately explored by existing literature on e-government implementation in Malawi.

3.3.2 E-government Policies in Mozambique

The main legal infrastructure supporting the implementation of e-government project in Mozambique is the National ICT Policy. The development of the policy began in 1998 under the

overall guidance of the Prime Minister (who was chairing the ICT Policy Commission) and the final policy was approved by the Council of Ministers in December, 2000. The policy established six priority areas namely; education, human resources development, health, universal access, infrastructure and governance in order to promote diffusion of ICT knowledge and applications of ICT in different human activities in the country. The main objectives of the National ICT Policy include the provision of a common framework for the harmonious development of information society in Mozambique, development of ICT regulations and supporting action plans towards ICT projects (Macueve, 2008: 24).

In order to actualize the policy mandates, the ICT Policy recognized the development of the ICT Implementation Strategy to specifically address six program components namely; e-government, human capacity, infrastructure, enterprise, policy & regulations as well as content & applications. The ICT Implementation Strategy was developed and approved in 2002. According to the IST-African Consortium Report (2014), the ICT Policy established e-government as a key element in ICT Implementation Strategy to support key areas necessary for the adoption and implementation of e-government in the public sector. Consequently, the six program components were directly linked to the implementation of the e-government agenda. At this level, it becomes clear that unlike the Malawi ICT Policy, the National ICT Policy in Mozambique established a strategic direction on the implementation of the Policy through the establishment of the a broader ICT Implementation Strategy with e-government agenda as its central focus.

Further to the development of the ICT Implementation Strategy, the Mozambique government developed the E-government Strategy (MOZ-EG Strategy) which not only operationalized but also provided direction on the ICT Implementation Strategy and the general implementation of e-government initiative across the public sector (MOZ-EG Strategy 2004).

The MOZ-EG Strategy was approved in 2004 covering ten broad objectives to be achieved within a period of six years from 2004 to 2010. Table 7 below outlines the MOZ-EG Strategy objectives for the e-government agenda.

Table 7: MOZ-EG Strategy Objectives

NO	OBJECTIVES	DERIVABLES	TIME-FRAME
1	Rationalize and simplify public services through the use of ICT	Downloadable standardized forms & procedures of all government services are available on the Web.	2004 - 2010
2	Enable all levels of Government including Districts & Municipalities) to have access to the secure government network.	All Ministries, Central & Local Government agencies down to Districts and Municipalities are connected by the secure government network	2004 - 2010
3	Enable all Public Sector agencies to share common sources of basic data	Authoritative data sources for use & benefit of citizens/Civil Society, Private Sector & Public Sector	2004 - 2010
4	Create a dynamic entrepreneurship environment to support E-government initiatives	All E-government projects must be delivered and/or supported by locally nurtured Mozambican entrepreneurs as partners	2004 - 2010
5	Enable a secure environment for collaboration and data exchange of electronic transactions (including financial & others) based on open standards.	The multifunctional financial transaction environment to be extended for G2B and G2C purposes	2004 - 2010
6	Enable the development of local and indigenous content.	A significant level of local and indigenous content development activities contributing to E-government initiatives.	2004 - 2010
7	Empower community to participate effectively in local governance.	1 sustainable community-run ICT centre per district. - Community-initiated governance processes implementation ready.	2004 - 2010
8	Enable public access to government information and services at district and municipality levels	At least 1 functioning public access point in every District & Municipality - Private Sector working with Government to deliver information & services.	2004 - 2010
9	Build the institutional capacity and capability necessary for the	An E-government entity chaired at the highest level of government with	2004 - 2010

	coordination & delivery of the EG initiatives.	<ul style="list-style-type: none"> a) an effective political steering mechanism; b) a fully-resourced national technical management unit; & c) a sustainable funding mechanism <p>- Every Ministry and Province to have Chief Information Officers participating at Chief Information Officer Council mediated by the E-government entity</p>	
10	Build Public Sector human resources capacity to effectively deploy ICT for public services delivery	All public officials (down to District & Municipal level) to have job-related functional literacy in ICT	2004 - 2010

SOURCE: MOZ-EG Strategy, 2004

The establishment of the ICT Implementation Strategy and eventual development of the MOZ-EG Strategy focusing on the public sector as shown in the table above, underscores the inherent mandate that the ICT policy provided on the eventual adoption and implementation of e-government initiative in the public sector in Mozambique. Thus, the actual implementation of e-government in Mozambique was linked to ICT Policy through the development of the ICT Implementation Strategy and the E-government Implementation Strategy. To this effect, it can be noted that the ICT Policy in Mozambique had a direct focus on enhancing the adoption and implementation of e-government in the public sector and was properly aligned to the operations of the public sector as the main stakeholder in the e-government processes through the ICT Implementation Strategy and the MOZ-EG Strategy.

Compared with the Malawi ICT Policy, it can be established that the Mozambique National ICT Policy considered all the government ministries and departments as a unified entity and the policy provided a strategic direction towards the integration of information among government agencies by developing relevant ICT infrastructures under one roof to achieve a One Stop Centre on the provision of government services. Unlike Mozambique, the implementation

of e-government in Malawi, as noted earlier in the analysis, has been pursued in a closed system where government agencies within the public sector implement the e-government initiative as independent actors as opposed to a unified system as evidenced in the case of Mozambique. For instance, during the interviews with officials from the E-government Department, it transpired that the department does not have overarching powers to enforce ICT standards for all the public sectors agencies. This has been pointed out as a key factor for the failure to establish a comprehensive strategy for the implementation of e-government across the public sector and establishment of data centre for shared information between and among different government agencies. Thus, the E-government Department has limited powers to oversee the whole process of e-government implementation in the country even though it is assumed, in principal, to be the main agent for e-government implementation.

Furthermore, the ICT policy in Mozambique deviates from the Malawi ICT Policy by providing a strategic direction through the MOZ-EG Strategy on the nature of relationship between the government agencies and the private sector. For instance, the MZ-EG Strategy objectives 4 and 8 recognize the working relationship between government agencies and the private sectors as partners other than contractor relationship as evidenced in the case of Malawi. This enabled the government agencies in Mozambique to gain leverage in technological skills as well as access to technologies that the agencies could not access as a sole financier for the technological investments.

Again, under the general guidance of the MOZ-EG Strategy objectives 2, 5, 6 and 7, the government of Mozambique, unlike Malawi, undertook measures to address critical aspects of information integration within the public sector in order to enhance interactions through the G2C and G2B e-government applications frameworks. This is evidenced by the development and

adoption of the e-Government Interoperability Framework for Mozambique (eGIF4M) in 2009. The e-GIF4M is a capability of two or more systems aimed at enhancing the exchange of seamless data, information and knowledge among government agencies, citizens and the business sector (Macueve, 2008). The system has been central to the establishment of the One Stop Centre for the delivery of some services in Mozambique through the coordination of decision making processes, government programs and services thereby enhancing accountability as well as the harmonization of ICT initiatives in government ministries and departments.

Table 8 below shows a comparison between Malawi and Mozambique in the realm of policy and overall e-government implementation results.

Table 8: Malawi Vs Mozambique Policy & Implementation Results

COUNTRY	POLICY	POLICY DIRECTION	PUBLIC SECTOR INTERVENTION	IMPLEMENTATION RESULTS
MOZAMBIQUE	National ICT Policy	ICT Implementation Strategy	Mozambique E-government Implementation Strategy	Successful
MALAWI	National ICT Policy	None	None	Unsuccessful

As has already been outlined earlier under section 3.3.1, Mozambique has made major strides in the implementation of e-government compared to Malawi even though the countries share borders and have almost similar conditions in terms of governance, political systems, set up of the public sector and cultural backgrounds. Mozambique features highly in the Southern Africa Development Community (SADC) region in the provision of online services according to the UN E-government Survey (2012, 16).

Comparing Mozambique with Malawi from the policy perspective, table 8 shows clearly that despite both countries developing their National ICT Policies, Mozambique unlike Malawi has gone a step ahead to provide a strategic direction for its policy through the ICT Implementation Strategy which targets key areas of e-government namely; human capacity, Infrastructure development, enterprise, e-government, policy and regulations as well as web content and applications. Furthermore, the country operationalised the ICT Implementation Strategy by developing the MOZ-EG Strategy which specifically targeted the implementation of e-government in the public sector. Holding all other things constant, the overall results for the e-government implementation between the two countries, Mozambique and Malawi, can be said to be successful and unsuccessful respectively as shown in table 8. The main points of departure and separation between the two countries as shown in the table have been the ICT Implementation Strategy and the E-government Implementation Strategy which are both main tools providing strategic direction for the National ICT Policy and eventually actual implementation of the e-government.

From the discourse above, it can be concluded that failure to successfully implement e-government initiatives in Malawi stems from the lack of strategic direction in the form of ICT Implementation Strategy as well as E-government Implementation Strategy. In order to appreciate the relevance of the above discussions and the point of departure between the two countries, it is important to weigh the extent to which Mozambique's implementation approach augur with the best practices in countries that have successfully implemented the e-government initiative.

3.3.3 Best Practices in E-government

Existing literature on e-government show that countries that have achieved admirable levels of progress in the adoption and implementation of e-government initiatives have several common features that enabled successful implementation. These common elements include; development of ICT infrastructure, development of human capacity in ICT, data infrastructure, proper regulatory policies, harnessing partnership with the private sector, collaborations across the public sector bodies, financial resources, enhanced R&D and political will from the government leadership (Brown & Garson, 2013; Lee, 2010; Prabhu, 2012; UN, 2011). For instance, Western countries such as USA, France, UK and also Asian countries namely; Japan, South Korea, Singapore and Taiwan have not only got high endowments of the referred elements, but also achieved high levels of e-government implementation. In the similar way, developing countries such as India and also Mauritius (which was number one in Africa according to the 2012 UN E-government Survey), have achieved relatively advanced levels of e-government with a reasonable mix of the pre-conditional factors above.

From the international perspective, it can be noted that the success of e-government implementation depends on better policies and implementation strategies directed to attain a certain minimum preconditions for the success of e-government implementation. Thus, the policies and strategies should be able to address and support the development of the success factors or pre-conditions for the e-government agenda.

3.3.4 Overall Policy Analysis

Rating Mozambique on the above best practices in the adoption and implementation of e-government, it is worth noting that the country has a relatively better mix of most elements

which among others include; development of ICT infrastructure, development human capacity in ICT, harnessing partnership with the private sector, collaborations across the public sector bodies, and political will from the government leadership. This is quite clear not only in the policy, but also put in action through the ICT and E-government Implementation Strategies. In fact, this shows that the approach taken by the government of Mozambique relatively fits the best practices in e-government, as illustrated from the world perspective, which is in direct contrast to the case of Malawi.

From the above perspective, it still holds, to a large extent, to uphold the conclusion that the failure for Malawi to successfully implement the e-government initiative stems from the general lack of appropriate policy direction and implementation strategies that provide and address an array of best practices in e-government besides setting a unified implementation guide across the public sector as has been the case in Mozambique.

SECTION FOUR – DISCUSSIONS, RECOMMENDATIONS AND CONCLUSION

4.1 Introduction

This section provides a brief discussion on the findings as presented and analyzed in section four and provides an answer to the research question for the study. Further, the section outlines the opportunities for the successful implementation of e-government in Malawi in the form of recommendations and finally a study conclusion is drawn including a determination on the status of the study hypothesis.

4.2 Discussion of Findings

The success of implementing e-government projects as illuminated in section 3.0 is incumbent upon the ability of a country to satisfy certain conditions enshrined in the e-government best practices as well as ICT Policies which are put in action through relevant strategies. As demonstrated in the findings, there is no clear cut policy that can address all the necessary conditions but rather it is important to have an appropriate policy that cherishes a better mix of ICT infrastructural development, governance structure, ICT knowledge transfer, data infrastructure and also nurture political support from the government.

As clearly illustrated in the case of Mozambique, the government had developed an ICT Policy that particularly focused on the enhancement of the e-government implementation across the public sector through the ICT and E-government Implementation Strategies in order to build a unified system for the development of ICT infrastructure, acquisition of ICT skills among public sector employees, integration of information across the public sector and harmonization of the relationship with the private sector which explains the country's e-government successes.

Since the prevailing policies in Malawi do not succinctly address the best practices in e-government, the country can therefore learn from the findings of this study to develop both the *ICT Implementation Strategy and the E-government Implementation Strategy* with an operative target of building a unified system in the public sector for the development of ICT infrastructure, acquisition of ICT skills among public sector employees, integration of information across the public sector and harmonizing the relationship between public agencies and the private sector. These strategies will not only be aligned to address core e-government implementation challenges in the public sector but also harmonize government ICT support to its agencies and other public institutions in line with the overall e-government agenda.

This will provide a profound opportunity for enhancing the implementation of e-government in Malawi. In this regard, all government agencies will be mandated to adopt ICT and e-government implementation strategies in accordance with the established milestones by the E-government Department. Consequently, there will be a standardized and unified approach to ICT advancement and acquisition in all government agencies and public institutions which will ease information integration process for the eventual establishment of the One Stop Centre for the provision of online government services.

In addition, the ICT and E-government Strategies will provide a strategic direction on ICT infrastructural development, human resource development, partnerships with ICT vendors in technological investments which are the core foundations and building blocks for a successful implementation of e-government initiative. Thus, government agencies will no longer relate to the ICT vendors in a contractual relationship but rather as partners. This approach will ultimately, build leverage to the government agencies in accessing state of the art technologies that they

could not afford as sole financiers. On the same front, the partnership approach will promote exchange and transfer of the much needed ICT skills to the public sector agencies.

Given the above discussions, this study concludes that the ICT Implementation Strategy and the public sector E-government Implementation Strategy are *the most appropriate strategies for promoting the successful implementation of e-government in Malawi.*

4.3 Study Recommendations

Even though a decade has elapsed under which Malawi has failed to make substantive progress in the implementation of e-government, there are opportunities – possibilities for a successful implementation of the e-government initiative in the country. These opportunities can be realized by implementing the following recommendations;

4.3.1 ICT and E-government Strategies

There is need to develop the ICT and E-government Implementation Strategies. As has been already outlined in the discussions above, the ICT Implementation Strategy will harness the development of the preconditions necessary for the successful implementation of e-government in general. For instance, it will concentrate in the field of building human capital, development of ICT infrastructure, proper regulatory policies, harnessing partnership with the private sector, collaborations across the public sector bodies, enhanced R&D through proper coordination with the research and institutions of higher learning. On the other hand, the Malawi E-government Implementation Strategy will focus on the actual implementation of e-government initiative in the public sector. This will include setting periodical milestones and performance reviews against set performance targets for the implementation of e-government. The Malawi E-government Implementation Strategy will be aligned to the Public Sector ICT Master Plan

(2013-2024) to allow uniformity in the adoption of relevant technologies by government agencies and other public institutions for future information integration. Development of the two strategies will enable Malawi to address some of its existing e-government implementation challenges such as lack of collaborations with stakeholders, strategic policy direction, ICT skills as well as ICT infrastructure.

4.3.2 Regulatory Policies

There is also need to develop and put in place proper regulatory policies to support and protect transactions regarding e-services under the e-government agenda. Thus, the country must put in place necessary policies in order to make the vision towards online transactions a reality. For instance, it is critical to immediately put in place the Access to Information Policy, the Electronic Transactions and Management policy, privacy protection policies among others meant to address security issues related to electronic transactions and compel government agencies to be transparent with information. As noted in the challenges, most public officers are more conservative in the provision of information to the general public owing to privacy and security concerns. By putting in place enabling and necessary policies, this will go a long way to reducing the current fears and concerns in the usage of government agency information thereby allowing public officials to view the e-government initiative as a complementary tool for government service provision to the general public other than a threat to their information based power.

4.3.3 E-government Awareness Programs

Furthermore, it is recommended to design and implement an e-government awareness program across the public sector as well as the general public regarding the e-government initiatives. Thus, while government agencies are adopting the computerized systems and the web

structures, it is clear from the findings that some agencies are not fully aware that these initiatives are part of the general e-government agenda. On the same note, the end users of e-government appear to have little knowledge and information about the government plans for the provision of e-services as illustrated in the low patronage for the private sector services currently implemented in Malawi. Hence, it is important to undertake a cross-cutting awareness both to the general public and public sector employees which will ultimately reduce the existing resistance and fears of being laid off, besides, increasing the uptake of e-transactions.

Lack of awareness on e-government initiatives has largely contributed to the low levels of citizen participation in the available e-services and resistance to change among public officers. Therefore, the awareness programs will be part of the initiatives meant to enhance the uptake and utilization of e-services by the general public while at the same time addressing fears from employees with regard to possible restructuring and loss of jobs owing to the use of electronic services.

4.3.4 Revisiting Curricula for Government Training Institutions

It is of great importance for the government to revisit existing curricula for the key public sector employees training institutions namely; MIM, SDI and TEVETA to include ICT packages. This will ensure that employees in the public sector acquire the necessary ICT skills and knowledge thereby enhancing human capital development to catch up with the advancement in technology. In terms of reducing digital divide and promoting the diffusion of ICT knowledge to the general public, the government will be required to enter into partnership with the private sector in all the 51 tele-centers currently established in the rural areas which were earmarked among others for the provision of ICT trainings and other services for the rural communities. The partnership arrangement with the private sector will ensure that the facilities are properly

functioning such that members of the general public can get access to the modern technologies at a relatively lower cost. These interventions will utmost minimize the existing challenges with regard to ICT skills among public sector employees and also the general diffusion of ICT knowledge to the citizenry.

4.3.5 Incentivizing E-services

The study also recommends for special incentives to users of online services in order to lure more users for the available limited services in the private sector. This can be achieved through negotiating with the current online service providers in the private sector to minimally reduce the cost of services for users transacting online. The approach is attainable under the new set up of enhanced collaborations between the operations of government and the private sector. Incentivizing e-services will ultimately entice the general public to use the online services as they will not only economize on time but also have the potential to minimize the total service cost. In both, the short and long run, the initiative will spur increased utilization of online services not only for those currently provided by the private sector, but also those yet to be fully provided by government agencies when online services are adequately developed.

4.2.6 Establishment of E-government Advisory Committee

There is a great need to establish an e-government advisory committee to provide advice to the Department of E-government and evaluate the general progress of e-government implementation in Malawi. The committee should be part of the public sector reform programs currently being undertaken by the government under the leadership of the Vice President. The advisory committee will thus be headed by the Vice President and will draw its membership from the business community, the private sector, major ICT vendors and heads of some public

sector agencies. Among others, the special committee will be providing advice to the E-government Department while at the same time enhancing the much needed political support through the leadership of the Vice President.

Also, the committee will be responsible for independent evaluation on the progress of e-government implementation in the public sector based on the activity tracking and milestones as will be established in the E-government Implementation Strategy. Overall, the committee will provide direction for the general implementation of e-government as well as high level political support which is currently one of the key challenges for a successful implementation of e-government initiative in Malawi. The placement of the E-government Department under the office of the Vice President will enhance the power of the department to have full control on e-government initiatives and enforcement of ICT standards in all the public agencies in the country as opposed to the current situation where the department plays a limited role with negligible authority. Ultimately, this will ensure a unified approach and strategic direction in the implementation of e-government initiative across the public sector in Malawi.

4.4 Conclusion

This research paper has established that despite the existing challenges that have negatively impacted on the implementation of e-government in Malawi, the country still has some opportunities to successfully implement the e-government initiative. This can be achieved, among other interventions, by establishing multidimensional ICT and E-government Implementation Strategies. The strategies have been derived based on a comprehensive analysis of ICT Policy in Mozambique and general best practices in the field of e-government drawn from success factors in both developed and developing countries.

The significance of ICT strategy and in particular, the e-government implementation strategy has not received attention in the context of Malawi based on the existing literature notably from Mtingwi & Belle (2012), Makoza (2013) as well as Bwalya & Mutula (2014). To this effect, this study provides a rare contribution on the existing knowledge in Malawi with regard to how the country can effectively implement the e-government initiative. Similarly, the afore-referred studies dwelt largely on financial resources, limited ICT skills, and low level of ICT infrastructural development as well as digital divide as the main challenges of e-government implementation in Malawi. Besides the foregoing, this study has added a new perspective and dimension on the challenges of e-government in Malawi by uncovering more understated contextual challenges stemming from the general lack of political will, change management processes, stakeholders collaboration problems, culture and citizen participation as well as lack of strategic policy direction. These additional challenges, coupled with those in existing literature provide a clear array of information under which decision makers can devise further strategies and programs meant to enhance and speed up e-government implementation processes in Malawi while at the same time minimizing possible obstructions.

To this end, the study upholds its guiding hypothesis that the *successful implementation of e-government is dependent upon the availability of appropriate implementation strategy.*

In overall, this study may not be exhaustive as it has taken a holistic approach with time limitations. Therefore, beyond this study, further research may be recommended in other e-government areas focusing on specific government agencies in Malawi so as to draw a clear picture on the e-government initiative at a micro-level.

APPENDIX 1

A. GENERAL QUESTIONS

Q1.

When did Malawi began the implementation of the e-government initiative?

Q2.

Apart from the E-government Department, which other institutions/government agencies are involved in the implementation of the e-government initiative?

Q3.

If there are other institutions/government agencies in the implementation (Q2) what role (s) do they play in the process?

Q4.

What is the role of private sector players (*i.e. business sector, ICT providers etc.*) in the implementation of e-government? (b). If the private sector plays a role, are they part of the decision making processes in e-government related matters?

APPENDIX 2

B. E-GOVERNMENT LEGAL FRAMEWORK

Q.1

What are the existing legal documents (Acts or Policies) that support the implementation of e-government?

Q.2

Are the legal documents enforceable to all government departments and parastatals? (b). If yes, do we have an overarching strategy enforcing e-government adoption in all the government departments / parastatals with specific time lines?

Q.3

Does the existing legal document (s) provide any legal mandate in ICT budgetary support for government departments/ parastatals? (b). If yes, is there any specific percentage of budgetary support or allocations required for every government department/ parastatals? (c). Are there technological specifications for the government departments and parastatals **prescribed or approved** by the E-government Department?

Q4

Does Malawi have specific framework plans or strategies to address gaps in ICT infrastructure, ICT Knowledge diffusion and digitization of government data? (b). How are the government training institutions (i.e. MIM, SDI and TEVETA) and institutions of higher learning linked to the e-government implementation processes?

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