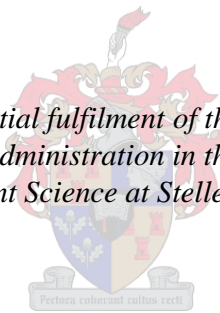


**EXPLORING ALTERNATIVE METHODS OF SERVICE DELIVERY THROUGH
MOBILE GOVERNANCE AT THE SWAKOPMUND MUNICIPALITY**

by

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*Thesis presented in partial fulfilment of the requirements for the degree
Masters in Public Administration in the faculty of Economic and
Management Science at Stellenbosch University*



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April 2019

DECLARATION

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ABSTRACT

Local government is a sphere of government that is closest to the community in terms of service delivery and responsible for providing basic services to enhance the lives of citizens. Unfortunately, it has been persistently characterised by ineffective service delivery, amidst formidable challenges. This study explores the impact of mobile governance on service delivery in the local government domain of Namibia.

m-Government is a fairly new phenomenon in the public services sphere of Namibia and can be defined as the use of mobile technologies, applications and devices to deliver public services. It serves to mainly complement e-Government efforts, as these services are now extended to mobile platforms which are available anywhere and anytime. Mobile devices have infiltrated the developing world by storm, gaining popularity for its “anywhere anytime” convenience, as it offers an integrated platform on which value-added services are delivered for the benefit of citizens from all walks of life.

In the midst of an outcry to transform public service delivery, and recognising the untapped potential this device offers, this study adopted an explorative approach to realise the potential of mobile devices as a means of service delivery at the Municipality of Swakopmund. A comprehensive literature study was conducted drawing lessons from India and South Africa respectively. Various experts in the Information, Communications and Technology (ICT) fraternity were purposefully selected and interviewed, and a focus group was conducted with middle management staff members of the Municipality of Swakopmund. Unstructured questions were utilised for both sample groups to determine the current methods of operation and probable effect of m-Government.

The study results indicated that the revolution of mobile technology is prevalent in the operations at the Municipality of Swakopmund. The necessary infrastructure is in place and national legislation is enacted, thus employees do recognise the importance for the municipality to access public services on mobile platforms for improved service delivery.

The popularity of mobile devices shows that m-Government is an option that the Municipality of Swakopmund should invest in to transform service delivery effectively and responsively, thus creating an enabling, knowledge driven citizenry.

OPSOMMING

Plaaslike regering is 'n regeringsfeer wat die naaste aan die gemeenskap is wat betref diensverskaffing en verantwoordelikheid vir die voorsiening van basiese dienste om die lewens van burgers te verbeter. Ongelukkig word dit te midde van formidabele uitdagings knaend gekenmerk deur ondoeltreffende dienslewering. Hierdie studie ondersoek die impak van mobiele bestuur – ofte wel m-regering – op dienslewering in die plaaslike bestuursdomein van Namibië.

M-regering is 'n redelike nuwe verskynsel in die sfeer van openbare dienste in Namibië en kan gedefinieer word as die aanwending van mobiele tegnologieë, toepassings en toebehore om openbare dienste te lewer. Dit dien hoofsaaklik om e-regeringspogings aan te vul, aangesien dié dienste nou na mobiele platforms uitgebrei is wat oral en enige tyd beskikbaar is. Mobiele toebehore het die ontwikkelende wêreld stormenderhand verower en veral gewild geraak weens hulle gerief van “waar en wanneer” aangesien hul 'n geïntegreerde platform bied waar waarde-toegevoegde dienste tot voordeel van die burger uit alle vlakke van die samelewing gelewer word.

Te midde 'n beroep om openbare dienslewering te transformeer en die onbenutte potensiaal wat dié toebehoor bied, te erken, het hierdie studie 'n ondersoekende benadering aangeneem om die potensiaal van mobiele toebehore as 'n wyse van dienslewering aan die Swakopmundse Munisipaliteit te begryp. 'n Omvattende literatuurstudie is uitgevoer met die ter harte neem van lesse uit onderskeidelik Indië en Suid-Afrika. Verskeie deskundiges uit die Inligting- en Kommunikasietegnologie-omgewing is spesifiek gekies en onderhoude is met hulle gevoer. 'n Fokusgroep is ook saamgestel met middelbestuurspersonele van die Swakopmundse Munisipaliteit as lede. Ongestruktureerde vrae is vir albei steekproefgroepe gebruik om die huidige werksmetodes en waarskynlike invloed van m-regering te bepaal.

Die bevindings van die studie het getoon dat die omwenteling van mobiele tegnologie duidelik waarneembaar is in die doen en late van die Swakopmundse Munisipaliteit. Die nodige infrastruktuur is in plek en nasionale wetgewing is dienooreenkomstig bepaal. Gevolglik besef werknemers die belangrikheid vir die munisipaliteit om toegang tot openbare dienste op mobiele platforms te verkry ten einde dienslewering te verbeter.

Die gewildheid van mobiele toebehore toon dat m-regering 'n opsie is waarin die Swakopmundse Munisipaliteit behoort te belê om dienslewering doeltreffend en deelnemend te transformeer en sodoende bemagtigende en kennisgedrewe burgerskap te skep.

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LIST OF ABBREVIATIONS

Cases

CRAN: Communications Regulatory Authority of Namibia	4
e-billing: electronic billing	4, 58, 112
e-faults: electronic faults	58, 112
e-government: electronic government	38
e-help: electronic help	58, 112
e-services: electronic services	58, 112
GGLN: Good Governance Learning Network	18
HPP: Harambee Prosperity Plan.....	35
IDEA: International Institute for Democracy and Electoral Assistance.....	17
ITU: International Telecommunication Union	44
MDG: Millenium Development Goals	45
M-government: mobile government.....	40
MHDP: Mass Housing Development Programme	76
MICT: Ministry of Information Communication and Technology	34
MSDG: Mobile Service Delivery Gateway.....	61
MTC: Mobile Telecommunications Limited.....	4
MULSP: Massive Urban Land and Servicing Programme.....	76
NBC: Namibian Broadcasting Corporation.....	2
NDP: National Development Plans	34
OECD: Organisation for Economic Cooperation and Development	21
SDGs: Sustainable Development Goals	35
sms: short message service.....	84
UNESCO: United Nations Education Scientific and Cultural Organisation.....	41
ICT: Information and Communication Technologies.....	14
SCM: Smart Cities Mission.....	82

CHAPTER ONE: AN OVERVIEW OF THE STUDY

1.1 Introduction

In his study on the situation of public service in Namibia, Simataa (2001) found that the quality of public services is deteriorating. Public service delivery in Namibia has generally been characterised by poor performance and a lack of service delivery, which consequently adds to inappropriate wealth distribution, insufficient economic growth and high levels of poverty. Poor service delivery also leads to undesired service delivery protests, which could have been avoided if more attention was given to better performance.

In the past six years, service delivery protests became a headline for various towns in the country, after frustrated residents handed over a petition regarding poor service delivery. During 2012, Rosh Pinah residents marched for better service delivery (Cloete, 2012), Rehoboth residents followed the same trend in 2013 (Beukes, 2013) followed by Omaruru residents in 2013 (Kisting, 2013).

Katima Mulilo residents clashed with their Town Council in 2015 (Tjihenuna, 2015), and similar protests took place in Opuwo during 2016 (NAMPA). During the following year, residents of Walvis Bay protested against corruption in their Municipality (NAMPA, 2017).

Figure 1: Various Newspapers in Namibia



Source: <https://www.google.com/search?q=namibian+newspapers&source>

Figure 1 above illustrates various Namibian newspapers in view of the various protests which made headlines through the years.

It has become essential to minimize service delivery complaints and protests, especially against local authorities in Namibia. Although the media reports may not be perceived as a credible information, these stories are used to represent how breakdown in communication between local authorities and their citizens could lead to undesired outcomes. These are challenges which compel local government to find alternative measures of improving and enhancing the quality of service delivery. Local government, therefore, remains in the forefront of initiating value-added service delivery methods that will enhance accountability and transparency.

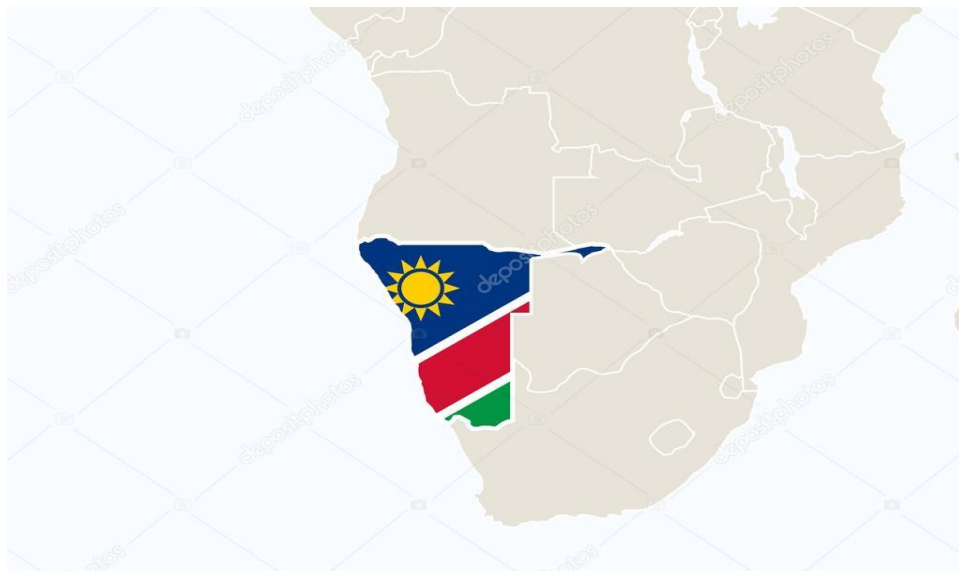
With the remarkable evolution of mobile communication technologies, fundamental changes in governance are anticipated, especially through bridging the gap between government and citizens. Mobile devices operate in areas where infrastructure required for Internet or wired phone services is not necessary. According to the Organisation for Economic Cooperation and Development and the International Telecommunications Union (OECD/ITU, 2011), governments worldwide will be challenged by the need to look into developing mobile government (m-Government) in the years to come, by adopting strategies that will enable them to harness the opportunities offered by mobile technologies and maximize their benefits in order to achieve improved service delivery. This is why many countries have already adopted mobile technologies in service delivery as they play a constructive role in transforming public services.

Statistics have shown that 95% of Namibians today use mobile devices in their daily activities (Communications Regulatory Authority of Namibia/CRAN, 2016). This research therefore argues that local governments in Namibia can make their services easily accessible to citizens considering the advantages that digital transformation has offered through mobile platforms. President Hage Geingob has encouraged Namibian citizens at a meeting held with staff during 2017, to conduct more research on public services in order to encourage superior service delivery at all times (NBC news, 2017). This study therefore complements the wishes of His Excellency as it examines the potential offered by mobile technology to improve public service delivery, particularly at local authorities, in an attempt to address hindrances such as poor service delivery, in the quest for good governance.

1.2 Background

Namibia is a sparsely populated, middle-income country situated on the south west coast of Africa (Tomlinson, 2011). Figure 2 below demonstrates the location of Namibia on the African continent bordered by Angola, Zimbabwe, Zambia, Botswana and South Africa.

Figure 2: Locality of Namibia on the African continent



Source: <https://www.istockphoto.com/vector/map-of-namibia-and-national-flag>.

From 1884, Namibia was forcefully occupied by German forces that created genocidal policies to invade and rule areas where native citizens already resided. The horrific events of the German administration lasted for 20 years, during which time many lives were lost as a result of resistance to German administration. Many inhabitants were displaced from their ancestral land which was forcefully occupied by the Germans. From 1920, South African forces took over from German rule in terms of the peace treaty of Versailles, and further violated the human rights of the inhabitants through the implementation of racist policies. After a long and protracted struggle, Namibia's achievement of independence on 21 March 1990 marked the beginning of self-determination and sovereignty (Amoo and Skeffers, 2009). Twenty-eight years after independence, the country boasts with a young multi-cultural population of 2.3 million inhabitants, which is rather small compared to the population of other African countries.

Although Namibia has made progress in reducing income inequalities and poverty levels amid the difficult economic conditions, many of its citizens still face adverse conditions such as inadequate access to basic services. According to a recent study by Remmert and Ndhlovu

(2018), the rapidly increasing urbanisation rates over the last decade place immense pressure on urban areas to provide basic services to its residents. It is therefore important for the country to strategically and incrementally transform public services so that it promotes the general welfare of citizens.

Namibia has recognized the impact of information communication technologies (ICT) on many economies around the world and has thus ensured that the country's vision for the year 2030 includes, amongst others, the need to '*transform the nation into a knowledge-based society*' (Republic of Namibia, 2004). Subsequently, during 1999, the telecommunications backbone switch and transmission network was fully digitised with cutting edge underground fiber optic cabling that facilitates access to advanced technologies, products, applications and services for Namibians (IST Africa, 2017). The upgrading of ICT infrastructure provides for communications platforms to be established and made accessible throughout the country with network points present in all towns. It therefore means that this advanced infrastructure provides for municipal networks to improve the quality of public services, as many Namibians today depend on ICT systems for various operational processes.

According to a report by CRAN (2016), mobile coverage in Namibia has reached an exponential growth of 95%, indicating that citizens depend on mobile technologies as a basic tool of communication. In addition, Namibia's main cellular operator, MTC, made provision for Internet access to be available through 4G devices and Internet enabled phones. As a result, the number of Internet users in the country doubled, because 87% of these users make use of mobile platforms to access the Internet (Stork, Calandro, and Gamage, 2013).

In light of the statistics provided, this research argues that mobile devices will ultimately become a platform not only for communication, but also as a source of information, transactions, and interaction. The various usages of mobile devices are already evident in banking transactions, internet usage, education and health alerts, as well as payment of bills. As current trends of mobile users in Namibia continue, citizens become more dependent on such devices for access to information and various services. With improved access to ICT facilities in the country, there is thus an opportunity for municipalities to transform service delivery through converting public services into mobile platforms and consequently enhancing service delivery. Using mobile technologies to deliver public services "allows for opportunities to improve the internal operations and create a more integrated platform for public sector

employees, whether the data required is on the Internet, network or portable device in their control” (Jotischky and Nye, 2011).

Local authorities in Namibia have the fundamental responsibility to improve the lives of citizens and should thus take the lead in designing systems that meet their needs while efficiently bringing citizens into the process of engaging digital services. As many Namibians continue to demand improved service delivery, these authorities are pressured to become more accessible and accountable to its citizens. Mobile government can be seen as a significant contributor to public service delivery. Local authorities in Namibia need to tap into this niche and explore methods to effectively and efficiently improve service delivery (Du Preez, 2009). The increased use of ICT for service delivery places a greater emphasis on service accountability and performance measurement, as evidenced by increasing user responsiveness (Maritz, 2015). In this way, overall efficiency and effectiveness could be increased while promoting transparency and accountability.

1.3 Problem Statement

The growth of Namibia’s urban population almost tripled from 1991 to 2011 as a result of immigration from rural to urban areas, where economic opportunities are more attractive (Weber and Mendelsohn, 2017). The Municipality of Swakopmund is one of Namibia’s leading municipalities and is experiencing a rapid population growth rate of 5.4% per annum, which is accompanied by increasing demands for effective and efficient services delivery (Esterhuizen, 2016). These demands result in relentless complaints, as old methods of service delivery became ineffective and inefficient, and consequently created room for protests from impatient aggrieved and pressured community members. These conditions place excessive pressure on the local authority to transform services to respond promptly to the needs of its citizens.

After studying the transition from Electronic government (e-Government) to Mobile government (m-Government), Kushchu and Kuscu (2004:1) found that “the mobile access - anywhere any time – is becoming a natural part of daily life, and as such many governments will have to transform their activities according to this demand of convenience and efficiency of interactions for all parties”. As a result of the rapid speed at which mobile phones have infiltrated society, especially in developing countries, the transition from e-Government to Mobile government or m-Government depicts a more fundamental change in the application of ICT technologies to a mobile platform. Namibia reached a high 95% mobile coverage

(CRAN, 2016), while the number of Internet users continues to grow mainly because the Internet can now also be accessed through mobile platforms. These findings indicate that mobile devices have surpassed the predominant means of sharing information, as this device is fast becoming the most required means of living. Advances in mobile telecommunication services therefore influence the move towards m-government, which has evolved as the next big wave for information and communication technology (ICT) used in the public sector (Kushchu and Kuscu, 2004).

m-Government presents an opportunity to accelerate service delivery at local government level in Namibia because this level has been characterized by poor performance and lack of service delivery. It has therefore become fundamental that local authorities invest in service delivery methods offered by mobile technology which promotes open and accessible communication strategies aimed at enhancing service delivery. The advances in mobile technology, as shown in statistics, influence the move towards digital transformation, making it easier for the public to access services.

1.4 Research Question and Objectives

The proposed study will be guided by the following primary question:

How can m-Government be used to improve service delivery within the local sphere of government in Namibia?

In order to answer this question, the following objectives have been identified:

- To determine the general impact of m-Government on service delivery within the local government sphere;
- To draw lessons from best practices provided in case studies of other countries;
- To identify alternative methods of service delivery offered through m-Government
- To examine the practical implementation of m-government within the Municipality of Swakopmund and opportunities for improved service delivery,
- To provide recommendations that can be implemented to enhance service delivery within the Municipality of Swakopmund.

1.5 Significance of the study

The Namibian Government is increasingly making provision for the use of ICT by offering extended services and information to electronic platforms (e-Government). There are,

however, many hindrances to the wider availability of electronic services, mainly because of the accessibility and costs involved, which restrict access to the services offered. Considering the growing body of evidence within the field of mobile technology, showing its impact an indication of the importance of mobile government as a means of service delivery is noted. The proliferation of digital technologies driving society today, offering increasing interactivity with their “*anywhere; anytime*” simplicity, is impossible to ignore. The importance of this study is therefore to develop a comprehensive understanding of mobile government and to determine how it can contribute to improved public service delivery. Providing reliable and credible evidence about the opportunities offered by mobile technology within local government needs to be thoroughly addressed as a mechanism for improved service delivery.

The significance of this study is this that it will:

- Contribute to the body of knowledge, scholarly research and literature regarding mobile government in Namibia and its effect on service delivery in local government;
- Provide adequate information to the Swakopmund Municipality regarding the proliferation of mobile technology and its effects on service delivery,
- Provide alternative methods of service delivery to be considered by the Municipality of Swakopmund as well as other local authorities.
- Provide useful insight into the implementation of mobile government within municipalities in Namibia.

1.6 Delimitations of the study

This study focuses on the Swakopmund Municipality located in the Erongo Region of the Republic of Namibia. Swakopmund is one of the leading local authorities in the country; however, it does not represent the entire local authority sphere of Namibia. The challenges found in this study surrounded distance and geography: it will therefore be restricted to the Swakopmund Municipality. However, the findings can be used as a platform for learning and innovation by other municipalities, as well as the public sector in Namibia.

A point to raise is the dearth of literature on local government in Namibia and in particular Swakopmund, as well as the limited literature regarding mobile government in Namibia. For this reason, the study relied on scrutiny of various documents and information from officials.

1.7 Research Design and Methodology

A research design is a strategic framework or plan of action that specifies a series of activities guiding the conditions for the collection and analysis of data (Terre Blanch, Durrheim and Painter, 2006). It involves multiple decisions about which approach to take within a research project and comprises the methodology, sampling design, choice of tools and statistical techniques (Singh, 2006).

The purpose of this research is to explore the m-Government phenomenon, which is a relatively unknown area of research in Namibia, and to find out how it can influence service delivery, particularly at local government. The study will therefore investigate the practices and procedures of m-Government and find patterns and ideas used by other countries that inform how this phenomenon could enhance current forms of service delivery in Namibia.

The study will use a qualitative approach which is holistic: it involves discovery and is described as an unfolding model that occurs in a natural setting, enabling the researcher to develop a level of detail from high involvement in the actual experiences (Williams, 2007). This approach is valuable to evaluate current methods of service delivery because it allows the researcher to explore m-Government in a specific setting in order to develop interventions aimed at improving service delivery.

1.7.1 Methodology

While the research design focuses on the plan of action, “the research methodology focuses on the kind of tools and procedures to be used to obtain the relevant data for the study from the initial identification of the problem to the final conclusions of a study” (Mouton, 2001:56). The tools and procedures in this study will include general as well as specific activities such as the review of relevant literature, case studies, data collection by means of a questionnaire, structured interviews, the focus group, and the analysis of the collected data, interpreting the results and drawing conclusions (Singh, 2006). Obtaining data from different sources, at different times, in different places and from different people is known as triangulation (Flick, von Kardorff and Steinke, 2004). This study uses triangulation to validate collected data.

1.7.2 Sampling Strategy

“A sample is the respondents selected from the study population” (Bacon-Shone, 2015:34). In order to elicit the views of larger groups, some form of sampling is necessary to gather opinions that are likely to be representative of the whole group (Bradford University, 2007). As this study

is mainly concerned with the detailed in-depth analysis of m-Government obtained from case studies and interviews, purposive sampling is used to select participants.

According to Babbie and Mouton (2001), purposive sampling is appropriate when a researcher selects his own sample on the basis of his own knowledge of the population. Given the background of the researcher, the population used for the study was the Municipality of Swakopmund, from which participants were identified who were readily available and who met the requirements of the study. This constituted the sample.

1.8. Key concepts relevant to the study

The following key concepts bear noting:

Government and Governance

The words ‘government’ and ‘governance’ derive from the same origin but differ in meaning. A government can be described as a “set of institutions and concerns a body of actors, which define how and to what extent the public affairs within society are shaped and directed” (Keman, n.d). These set of institutions has a formal sovereignty and is a centralised body mandated to run the affairs of a country through various essential functions. In contrast, governance involves more than just government, and focuses on how the functions of government are executed. According to Katsamunskas’s (2016:133), governance is the capacity of government to steer the economy and society towards the attainment of shared goals through managing relationships, interactions and activities. For the purpose of this paper, government is defined as the primary agent in serving the public good and outlining the collective interest, while governance concerns the structure which determining organisational objectives and monitors performance to ensure that objectives are attained (Kooper, Maes, Lindgreen, 2011).

Good Governance

The concept of governance is more of a neutral concept, and the notion of good governance was introduced as a critical determinant of successful governance. Mortimer (2013:15) describes good governance as the ability to make good decisions, and to manage the implementation of processes effectively and efficiently. Pillay and Khan (2015:20) observe that “good governance” involves transparency, accountability, integrity, the rule of law, stability and growth for the public or private sectors, which enhance the well-being of the community and synergy between the private and public sectors.

Local Government

Local government is a sub-set of government and has the function to exercise authority at local community level, which is thus referred to as local governance (Misuraca, 2007). Municipalities, as examples of local governments, have the authority to provide basic services to communities to improve their livelihoods. When referring to local government, this study identifies it as “the authority to provide public services to grassroots people and governance at local level” (Misuraca, 2007:18).

Local Authority

According to the Local Authorities Act 1992 (23 of 1992) of Namibia, "local authority refers to the area declared under section 3 to be a municipality, town or village, as the case may be, or deemed to be so declared". Further, “A Local Authority shall include all municipalities, communities, village councils and other organs of local government defined and constituted by Act of Parliament” (Republic of Namibia, 1992:9).

Information and Communication Technology (ICT)

Information Communication Technology (ICT) refers to electronic hardware and software used to exchange, process and communicate information and knowledge by electronics ranging from radio and television to telephones (fixed and mobile), computers and internet to manage information (Teryima and Sunday, 2015) It is considered to be one of the main driving forces in the ‘knowledge economy’ and “it includes telecommunication technologies and digital technologies such as computers, information networks and software” (Heginbotham, 2006:20). These electronic devices have produced efficient and effective means of governing the corporate world and offer opportunities for governments to improve service delivery.

e-Government and e-Governance

“e-Governance is the ‘electronic’ governance which delivers different and better programs and services, using a process that requires a sustained commitment of political will, resources and engagement among the government, private and public sectors” (Kalsi et al., 2009:212). Furthermore, Misuraca (2007:28) define e-Government as “the composite trend of governments at all levels, mainly through their operational arm of administration, and subsidiarity that provide citizens access to connect with public affairs.”

Governance of ICT

Smallwood (2014:5) provides a detailed outline of the governance of information which includes “key concepts from record management, content, IT and data governance, information security, data privacy, risk management, litigation readiness, regulatory compliance, long-term digital preservation and even business intelligence”. It is essential that the dissemination, creation and storage of electronic data are effectively managed and governed.

M-Government and M-Governance

Kushchu and Kuscu (2004: [n.d]) define m-Government as a “strategy and its implementation involving the utilisation of all kinds of wireless and mobile technology, services, applications and devices for improving benefits to the parties involved in e-Government including citizens, businesses and all government units”. “Mobile governance is thus a form of e-Governance which takes place on a mobile platform using wireless mobile technology, services, applications and devices” (Jotischky and Nye, 2011:3).

Digital media

Digital media has improved service delivery worldwide to a great extent. “Digital media includes the use of audio, video or image which may be accessed through ICT and includes devices such as mobile phones, electronic tablets, compact discs (CD) digital video discs (DVD) and the Internet” (Kaplan and Haenlein’s in Maritz, 2015:18).

New Public Management

Batley and Larbi (2004:13) define New Public Management (NPM) as “a set of particular approaches and techniques borrowed mainly from the private sector and applied in the public sector”. These set of techniques and approaches provides local governments a platform for improved service delivery.

1.9 Structure of thesis

The study comprises seven chapters, an overview of which follows.

Chapter One

Chapter One presents the background to the study, the research problem, aim and objectives of the study, research design and methodology, and the significance of the study. The chapter concludes by providing a conceptual framework, and a chapter outline.

Chapter Two

Chapter Two provides a theoretical framework of local government and discusses the literature reviewed in this regard.

Chapter Three

A theoretical framework of mobile government and its experience in South Africa and India are discussed in Chapter Three. These examples are selected to show how effective m-Government can be in local government services, as well as the opportunities available for further consideration. The chapter concludes by indicating some benefits provided by m-government from these cases.

Chapter Four

Chapter four presents a practical application of the theory presented to the context of the Swakopmund Municipality in Namibia, to help explain in detail the essence of local government, its mode of service delivery and the need to improve current methods of service delivery.

Chapter Five

This chapter provides more detail pertaining to the research method and research design that is employed, the techniques used to gather data and how data was analysed.

Chapter Six

The sixth chapter provides a discussion of the research findings and an analysis of the findings.

Chapter Seven

Chapter seven provides a summary of the ideas and arguments leading to the answers to the research question. The chapter concludes the dissertation with a set of recommendations to the Swakopmund Municipality in considering the use of mobile government as a tool to enhance service delivery.

CHAPTER TWO: A THEORETICAL PERSPECTIVE OF LOCAL GOVERNMENT

2.1 Introduction

Local government is the lowest tier of a government and is charged with public administration of smaller geographical areas such as towns and cities, and is therefore responsible for addressing the key challenges of development at grassroots level. As such, local government is confronted by various service delivery challenges which are provided amidst limited resources. As a dynamic sphere of government, it is therefore important that local government continually explores alternative methods of service delivery to transform public administration.

In Namibia, local government is confronted by various challenges, one of which is communication, which is a key attribute of most local government functions. Residents who are uninformed of issues affecting their lives end up protesting against what they perceive as poor service delivery because they fail to understand the processes involved or lack the necessary platforms from which to hold service providers accountable. In the quest for efficient and effective governments worldwide, the role of local government in Namibia calls for new approaches and interventions which aim to respond to the needs of citizens effectively.

In light of the above, this chapter examines the importance of local government, its background and purpose, in an attempt to provide a holistic understanding necessary to recognise the transformational effects of mobile technology on local governments. The review therefore provides an historic perspective of local government in general; the features it possesses; how democracy is viewed in this sphere of government; how the role of local government changed with specific emphasis on good governance and the responsiveness of local government. It further describes the environment of local government and how it interacts with the various stakeholders in its environment.

From this general overview pertaining to local government, the chapter provides a closer look in the Namibian context by giving a brief historic background, describing the strategic reforms which took place and lastly, summarising the statutory framework in which it operates.

2.2 An historical perspective of local government

The process of industrialisation during the late 18th century expanded economic growth, which resulted in the migration of many rural dwellers to urban areas where opportunities for

improved living conditions existed. This resulted in a new social system which remained closely linked to rural communities, but structured in a way that would govern the affairs to the benefit of everyone (Van der Waldt et al., 2014). The idea was to encourage local communities to become involved in the administration and service delivery of their areas. Around the world, local government structures began as early as the 18th century B.C. but have undergone various transformations as a result of growth in population as well as the type of government from country to country.

Both federal and unitary states experienced changes in the world of public management, demanding reforms to existing top-down approaches which are more sensitive to the given scenario (Radin, 2003). As a result, different instruments were created to improve the effectiveness of structures in service delivery. These included, amongst others, Devolution and Decentralisation, which allowed national government to delegate powers to regional and local government (Radin, 2003). The author is of the opinion that although these tools involved the passing of authority to regional and local units to lift the burden off government, it did not really solve the problem.

Wollman (2003) investigated the coordination in the inter-governmental setting by distinguishing between two modalities of devolution:

- decentralisation as the devolution of political functions to elected authorities; and
- deconcentration as the transfer of administrative functions to subnational levels or units.

According to Wollman (2003), the devolution of functions is one of the principles of coordination and also a structural instrument for intergovernmental management. In an attempt to improve intergovernmental relations, it is therefore important for local government to be accountable and citizen-oriented in their performance. These spheres of government, however, remain interdependent and should therefore be cooperative, collaborative and coordinated in their services.

“The existence of local government in Africa, Namibia in particular, reflects a government’s desire to involve the local people in the decision-making process relating to issues that affect them, and also the need to decongest the central government” (Lwendo and Tonchi, 2017:732). The transfer of powers from central government to regional and local government is important because through increased responsibility and power, local authorities or municipalities may manage their own affairs independently.

Stanton (2009) argues that local government is a decentralised system of democratic governance with powers derived from the Constitution and is thus responsible for its own revenue and is accountable to its local constituencies. The researcher, however, gathers that the idea of local government was still to bring government closer to the people and to improve the quality of governance according to public demand.

Unfortunately, many African governments experienced severe policy distortions after independence, which resulted in poor urban development models causing deplorable living conditions for many urban dwellers (Amadhila, 2014). African cities therefore need to rapidly improve their urban performance to avoid a perilous future for local government.

The historic trends related to local government indicate that the roles in public institutions have not remained static but dynamic, as the needs of citizens also change. The next section will discuss the features of local government.

2.3 Features of Local Government

The face of local government continued to change since the 18th century as the world encountered various development stages. This makes local government a dynamic sphere of government which is driven by public reform. Investigating the basic characteristics of local government is necessary to help understand the nature of this sphere of government.

In view of the historical nature of local government, it is evident that on a worldwide scale, local government comprises a decentralised representative institution with general and specific powers devolved upon it and delegated to it by the central government in respect of a restricted geographical area within a nation or state, and in the exercise of which it is locally responsible and may to a certain degree act autonomously (Van der Waldt et al., 2014). “In addition to being an essential institutional building block for local governance, local government uses mechanisms and processes to deliver public goods and services to citizens and create platforms through which citizens can articulate their interests and needs, mediate their differences and exercise their rights and obligations” (UNDP, 2009:5). The responsibility of providing public services to its local populace is a fundamental role which was devolved to local government with the intention of bringing government closer to people at grassroots level. Local government does not merely provide key services to the public but has to play the role of being a stimulus to urban innovation and representing the public interest in its developmental plans (The Cities Alliance, 2006).

The following characteristics are key to local government:

- “It is a public institution;
- It functions and performs its powers under the direction and control of an elected municipal council;
- It is a corporate body with legal personality, which exists separately and independently from the persons who head the municipal council;
- It is created to give the residents/local community of the area a say in the local government affairs that affect them;
- It is vested with specific powers and functions and
- It is also an institution/sphere of government that is constitutionally obligated to be a democratic entity.” (Bekink, 2006: [n.d]).

The above-mentioned features may not be exhaustive but are fundamental attributes of local government around the world. Local government therefore has the authority to exercise legislative and executive authority in the specified area.

“In an effort to find universal principles for local governance reform, the UN Habitat during April 2007 approved the Guidelines on Decentralisation and the Strengthening of Local Authorities, which was inspired by the European Charter of Local Self Government established in 1985” (UNDP, 2009:6). The purpose of these guidelines is to recognise and integrate the principles that govern the mandate of locally elected authorities, which include the following:

- “effective decentralization of responsibilities;
- policy management;
- decision-making authority;
- sufficient resources;
- governance and democracy;
- representative democracy;
- participative democracy;
- the principle of subsidiarity;
- capacity-building and institutional reform, participation through inclusiveness and empowerment of citizens, and
- Collaborative governance” (UNDP, 2009:6).

The intention is to create a reference or assessment tool that purports to assess local governance on a universal and international level (UNDP, 2009). Currently, these principles are key to all

local government authorities around the world. Local government has been assigned substantial administrative autonomy regarding local democratic governance, service delivery and local economic development (Stanton, 2009). It therefore means that local governments should be able to create a sustainable environment where the needs and aspirations of its local populace are fulfilled by means of effective service delivery. Local governments cannot operate in isolation but have to involve its people in the planning and implementation of services that affect them.

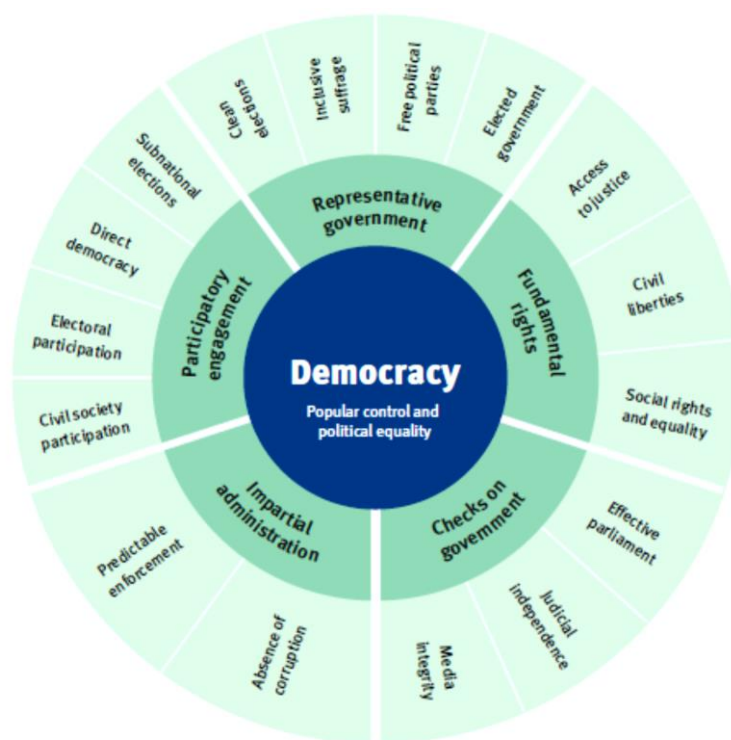
2.4 Local Democracy

Local government leaders are democratically elected by the citizens residing in its jurisdiction. The International Institute for Democracy and Electoral Assistance (IDEA), defines democracy as “popular control over decision-makers and political equality of those who exercise that control. The democratic ideal seeks to guarantee equality and basic freedoms; to empower ordinary people; to resolve disagreements through peaceful dialogue; to respect difference; and to bring about political and social renewal without convulsions” (IDEA, 2017:9). Establishing a democratic government ensures that leadership are chosen by citizens who uses their fundamental rights to freely participate in selecting a representative government. In essence it calls for cooperation, objectivity and transparency in order to avoid conflict, which is the root cause of war.

“Local democracy can be described as the participation and involvement of the local community in the affairs of the local government municipality which consists of representative governance; accountability and participation” (Van der Waldt et al., 2014:23). Where democracy can be seen in a broader sense, local democracy is narrowed down to grass roots level to ensure that all communities receive an opportunity to choose their own leaders who will represent their needs and aspirations for the upliftment of their lives. These democratically chosen leaders thus remain accountable to those who chose them; as such, it is essential that on-going communication and participation between a local government and the community prevails. A strong and resilient local democracy requires robust leadership, effective institutions and civic engagement, but unfortunately many local governments are marked by pervasive public dissatisfaction and disappointment because of unresponsive leaders. In an attempt to resolve and prevent social conflict, it is essential that local governments value local democracy through ensuring that it is included in policies and structures.

IDEA (2017) proposed five dimensions of democracy which can be organized in different ways depending on the local character. The full potential of local democracy lies in a representative government, fundamental rights of citizens, checks on government, impartial administration and participatory engagement, as illustrated in the figure below.

Figure 3: Dimensions of Democracy



Source: (IDEA, 2017)

To foster local democracy can only be rewarding to both local government and citizens. It is crucial for local authorities to invest adequate time and resources to develop and maintain the mechanisms and structures which comprise these dimensions of democracy. Local government cannot operate in isolation but relies on the inputs and insights preferred by their citizens. It should recognise the benefits of engaging citizens particularly in terms of improving service delivery and decision-making (Van der Walt et al., 2014).

The Good Governance Learning Network (GGLN, 2008) found that many municipalities are compounded by perceptions of service failure because of unresponsive leaders and poor legislation, which together cause a failure to promote transparency and participation. These operations result in democratic decline as it fuels mismanagement and corruption which ultimately affects service delivery and local governance. The dynamic nature of local government calls for frequent transformation in methods of service delivery to adjust to the

changing needs of its local citizenry. As the world is evolving, in the 21st century various platforms have been created to connect with people on global platforms and in so doing there are various methods of communication amongst populations. Winning public support is made easier through these communication platforms, which create room for improvement in democracy through changing practices of political engagement. This means that despite the poor perceptions of local democracy today, there are opportunities and platforms to strengthen and promote local democracy so that public trust in those who represent their interests and that those interests are not treated irreverently or disregarded.

2.5 The changing role of Government

The quest for reform in public management came as a result of public outcry for efficiency and effectiveness of governance and the demand for reforms in financial management, the quality of service delivery and the ideology of good governance (Batley and Rabie, 2004). The public sector in modern societies is compelled to continuously search for ways and means to restructure service delivery to meet the changing needs of citizens. According to Nelson (2016: 35), “public-sector reform necessitates many countries to adopt private sector principles, practices and processes for use to provide responsive and efficient public services.”

Although these management approaches do not entirely solve the challenge of public management reform, they produce results such as the efficient production of outputs, improved fiscal control, and responsive public sector delivering better services (Nelson, 2016). Many governments desire to be responsive to the needs of the public and m-government provides a platform to meet this goal.

The Commonwealth Working Group on Public Administration (CWGPA), recommended nine principles of public sector reform at a meeting aimed to conceptualise and develop a framework for the reform of public administration, held in London on 27–28 November 2014 (Commonwealth Secretariat, 2016). These principles are outlined below:

- “A new pragmatic and results-oriented framework;
- Clarification of objectives and administrative structures;
- Intelligent political strategies and engagement;
- Goal-oriented competencies and skills development;
- Experimentation and innovation;

- Professionalisation and improved morale;
- A code of conduct for public sector ethics;
- Effective and pragmatic anti-corruption strategies and
- Effective public financial management” (Commonwealth Secretariat, 2016:8).

The article described best practices presented by respective commonwealth countries in terms of these principles. Principle five fosters the opportunity to experiment and create a platform for the implementation of innovative approaches to meet the changing needs of citizens and service delivery in the 21st Century. In this regard, the experiences of successful countries like Kenya and Seychelles show that the transformation of public service delivery can be done through integrated technology platforms where citizens are assured of people-centered, professional, efficient, transparent and accountable services (Commonwealth Secretariat, 2016). These countries proved that when governments invest in ICT, secure economic and social benefits reimburse the initial investments as a result.

The introduction of information and communication technologies (ICT) presented a rapidly changing economic order characterised by unprecedented possibilities to transform service delivery (Ndou, 2004). ICT is known to promote the active deployment of tools like computers and the Internet to deliver public services and are viewed as fundamental in developing strategies for public sector reform because of its potential to make services more responsive and efficient, reduce costs, improve transparency and the overall quality of services delivered by governments, as found in the examples portrayed by the Commonwealth Secretariat. The Commonwealth Secretariat (2016:177) indicates that “top-level government support remains a critical factor to the success of public service transformation efforts.” Therefore, governments which are ardent in delivering more efficient and effective public services need to embrace their role in promoting ICT-based systems provision, and its regulation (Mukerji, 2013). The demonstrated potential of innovative technologies creates new possibilities for governments to accelerate socio-economic growth, improve good governance and harness social linkages in society.

2.5.1 Good Governance

According to Lee (2003), governance provides a platform to solve an array of common problems in organisational, social, national and international arenas. On the other hand, Nelson (2016) identifies the weaknesses in service delivery within the public sector that prompted

structural adjustment in government for more sustainable and equitable economic development. Governance reform thus became a requisite for building a better national and regional environment in which the lives of all citizens are enriched and public-policy results achieved. In essence, the ultimate quest for many governments remains “optimising the use of public resources, to strengthen its governance capacity to achieve long-term strategic quality-of-life, prosperity and competitiveness and deliver services more effectively and efficiently” (OECD, 2001:62). The need for good governance can therefore not be overemphasised as it comprises “enhancing trust in government, its institutions, the quality of its services and decisions” (OECD, 2001:62).

“The concept of good governance has produced varying understandings which aims to achieve good management, good performance, good accountability and overall good outcomes with regard to service delivery” (Nelson, 2016:8). According to Lee (2003), good governance encompasses formal processes for auditing, ensuring transparency, and information disclosure which are used by both governments as well as the private sector. It is therefore important for a country to identify good governance as a guiding principle when addressing national objectives.

According to Mukerji (2013:21), there are four key dimensions which describe the essence of good governance:

- “Sound public-sector management;
- Accountability;
- Legal framework for development and
- Information and transparency”.

“It is against this backdrop that ICT for good governance is envisioned to bring about a paradigm shift through decentralisation, procedural simplicity, speed, reduction in cost and convenience for the citizens, efficiency and effectiveness, accountability, transparency, participation and responsiveness” (Mukerji, 2013:21). Good governance is therefore also promoted through ICT as an important ingredient used by governments to promote development.

2.5.2 Responsiveness and Efficiency in Local Government

Responding to the needs of the citizens it governs can be regarded as one of the greatest virtues of local government. This is because the effectiveness of local government is largely determined by its responsiveness to the needs of these citizens, especially those of poor and marginalised backgrounds. These are the citizens who are usually the most underprivileged and who are heavily dependent on public services available to them.

The UNDP (2000) emphasises that empowering citizens, especially the poor and marginalised, to effectively influence the decisions of local government is a critical determinant that can build and strengthen initiatives provided by local government. According to the UNDP, the planning and budgetary process within local government should therefore be conducted in a participatory manner, where the needs and aspirations of all citizens are considered. In this way, the needs of the entire community are reflected with the view of developing budget priorities. Ultimately, such a situation can only enhance the effectiveness of local government as they are able to respond to the needs of its citizens. “The failure to undertake such initiatives will have detrimental effects in ways ranging from civil disorder to growing financial burdens to a decline in basic infrastructure and economic capacity” (UNDP, 2000:3).

The GGLN (2008) states that local government in many developing countries are in a state of crisis as they are confronted by community protests in response to the pitiable and slow state of service delivery. These protests are viewed as an expression of a deep malaise within this realm of governance as marginalised citizens have become aggravated by the poor approach taken by local government (GGLN, 2008). It is therefore critical that local governments remain transparent in their planning and budgetary processes to ensure citizens that they are indeed responding to their needs in the most efficient manner possible.

According to Maksimovska and Stojkov (2016), being responsive and reactive implies that the local government should ensure that needs of citizens are addressed through service delivery in order to keep the citizens satisfied at the local level. Local government is seen as an entity which should be accessible to citizens as they are obliged to act for the benefit of society at large. The author thus cites higher levels of media development as a means to encourage active participation in the community and to be more open and reactive to the needs of all citizens especially those who are more vulnerable. Furthermore, Maksimovska and Stojkov found that undue political influence from the central government can erode local government

responsiveness; however, increased transparency and participation of the entire community is crucial in building a responsive local government. This paper therefore agrees with the author that increased communication with citizens increases the support of its citizens in local decision-making processes, which exceed service performance expectations and foster responsiveness at local governments.

2.6 The Environment of Local Government

“The term ‘environment’ can be defined as a function which may encompass issues like water, land, air, socio-economic, political, biological and cultural aspect of human existence, but in another light it may be viewed as everything external to the organism which influences its life in the place where it lives” (Oladimeji, Ajike and Nasiru, 2016:31). In the local government context, ‘environment’ will refer to the social cultural and political environments in which it operates. Local government operates within an environment and as a result, the structure and running of these institutions are evidently affected by the environment it surrounds itself with.

“Organisations do not exist in a vacuum, but within a broader environment from which they cannot be separated and as such they are continuously shaped by it” (Mkhonta, 2007:197). Local governments are affected by various factors emanating from the environment with which they conduct and maintain formal relations. The services delivered by local government will equally have an influence the environment in which it operates, as such continuous interaction remains crucial in order to be effective. Mkhonta (2007) suggests that factors from the environment consist of all phenomena which include the social system, economic system, legal framework, historical, political, and geographical factors that impact on organisations and which can be used as a framework in a study of a local government. The author is of the opinion that the best organisation-environment relationships are generated if the right balance is struck, because the absence of such conducive relationships may lead to excessive environmental pressures which may lead to the dysfunction of the organisation (Mkhonta, 2007).

Furthermore, Swanepoel and De Beer (2011) claim that since the various environments are so complex, it is essential to have sufficient knowledge of the environment such as the diverse stakeholders, the local situation and potential conflicts. With adequate knowledge about the environment in which it operates, local governments will be able to coordinate development efforts in a socially responsive and sensitive manner.

To effectively respond to the needs of the residents requires easier and faster modes of communication. In this regard, local government needs to consider the impact of technology

on the environment so as to allow residents' access to services and products at all levels through improved communications technology (Pearson, 2010).

2.6.1 Interaction with External Environment

“The influences between local government and its external environment are reciprocal. While local government influences the environment through its products and services the external environment influences local government” (Muscalu, Iancu and Halmaghi, 2016:136). People are social beings who need interaction within its environment due to primary activities in which they engage. Local governments, on the contrary, have the responsibility to ensure that the basic needs of people are met and thus need to interact with these people in order to improve their living conditions. The interaction with the external environment can therefore not be overemphasised as it impacts the plans, objectives, procedures and activities within local government and avoids unpredictable, disruptive situations. Local governments can operate efficiently if they take into account the inter-relationships with its external environment and ensure that adequate technologies are used to maintain such relationships through continuous dialogue.

According to Nguyen and Nguyen (2013), the external environment plays an essential role in developing innovation and stimulating technology transfers. Local government therefore needs to ensure that they cooperate with their external environment to explore the expertise and knowledge provided and to increase innovation activities. They need to grab the best available resources that will contribute in their response to the needs of the public in providing effective and efficient services. Devices such as mobile technologies provide easier access to information transfer and have shifted the paradigm of citizen expression. Through the use of mobile banking for example, citizens in remote areas no longer need to go to the bank to transfer money because accounts are linked to mobile phones from which they may transfer funds anytime and anywhere.

Given these perspectives pertaining local government's interaction with the external environment, the supposition is that priority needs to be given to the environment in which a local government operates to pursue public purpose. It therefore suggests a participatory approach which is discussed next.

2.6.2 The importance of Participatory Governance (systems theory, bottom-up approach)

In response to the top-down nature of conventional development in the 1970s, calls for increased participatory approaches started to take centre stage, according to Wood (2004). This is based on the thought that inhabitants for whom this development is intended can provide valuable insight in the design of their development projects mainly because they have an intricate, intimate understanding of their realities (Wood, 2004:28). This notion has been substantiated by various authors such as Fortuin (2012) who cites that public involvement facilitates the building of trust, so that parties will co-operate with local governments in implementing their own development projects. Today, more and more governments have become aware of these new approaches and thus moved towards participatory planning approaches to ensure that development efforts are sensitive to the priorities required by citizens. In the absence of trust, citizens may reject the development efforts imposed on them which may lead to unnecessary strife between governments and its citizens.

According to Friedman (2009), many local protests are reactions against the lack of consideration of local governments because instead of merely delivering services to citizens, governments should first listen to them to ensure that they provide for the identified needs of its citizens. “It stems from the core democratic idea that government works for citizens and that it cannot do this unless it listens to them” (Friedman, 2009: par 7). Friedman’s contribution is useful because it validates the need for authorities especially local governments to always engage with citizens on issues affecting their lives. Citizens all over the world have voiced their need to be heard in issues affecting their lives especially in countries where allocation of resources have been imbalanced. Public participation is thus an important tool towards effective and efficient service delivery because it empowers beneficiaries to influence, direct and own developmental processes. It is therefore important for local government to ensure that public participation is valued and promoted in its service delivery strategies.

There are, however, still differences in various disciplines regarding the effects of public participation. While many scholars have demonstrated the benefits of public participation others have identified various barriers which hinders effective participation as indicated in the table below.

Table 1: Reasoning of Public Participation

FOR/OPPORTUNITIES	AGAINST/CHALLENGES
Ensure a good relationship with the public, better service quality and better decision-making	Lack of trust in government
Promote accountability, legitimacy, transparency and empowerment	Lack of Information
Improves Mutual trust	Lack of expertise
Promotes Resource authority	Inadequate government-citizen communication
Participants competence and representativeness are improved	Poorly defined objectives
Promotes Citizen education	Fear that government irregularities may come to light
Enhances Political support, control and leadership	Exclusion of some groups due to social segmentation

Source: Chowdhury and Aktaruzzaman, (2016:122)

The arguments presented in Table 1 above, illustrate that there are considerable factors against public participation which may hinder effective public participation. Chowdhury and Aktaruzzaman (2016:121) advise that “unless citizens are capable of effective advocacy and adequate resources are available to local government, the road to participation will remain a difficult one”. To ensure effective public participation is thus not as uncomplicated as it may appear to be, but calls for meticulous planning to ensure that the exercise produces the anticipated fruits. It therefore means that citizens need thorough understanding of the processes and procedures involved when implementing developmental projects aimed at improving their lives. A failure to comprehend what development entails or the challenges and pitfalls which may accompany development efforts may lead to undesirable outcomes.

Considering the reasons given above, it can therefore be noted that the social, political or cultural context of a country plays a big role in the effects of public participation. It is therefore crucial to identify and address the actors and factors affecting participation in order to achieve desired outcomes. Many developed and developing countries have experienced various success stories as a result of public participation. According to Agger (2012:29), “new institutionalised forms of participation that allow citizens to deliberate with one another and officials regarding public challenges and policies are being deployed by many governments at different levels as governments increasingly recognise the urgent need to mobilise and use citizens in the governing of our complex, fragmented and multi-layered societies”.

As the era of ICT continues to transform many traditional modes of operation, it also introduces the potential for electronic platforms of participation, where citizens are offered more

interactive forms of deliberation as well as opportunities to keep track of participatory processes (Agger, 2012). ICTs have opened up spaces of power, influence and association enabling networks between individuals, communities and organisations to allow greater numbers of people to aggregate and collectively address societal challenges. They offer opportunities to address these challenges through engagement in partnerships and collaborative frameworks across society.

The researcher thus reaffirms that through public participation the role of the citizens is transformed as they are involved in the design, implementation and enforcement of public policies. The implication of these participatory modes of governance is to enhance responsiveness and effectiveness as well as to encourage fair, participatory, deliberative and accountable local governance.

2.7 Local Government in African countries

The desire of Third World/developing countries to grow, along the lines of the First World/developed countries followed some decades after World War II. During this time, development planning became a means of accelerating the process of nation building and reconstruction.

Olowu (2012) argues that for many countries in Africa, political systems were built on historic patterns set by colonialism which remained intact even after political independence. Subsequently, they realised the connection between these archaic structures and their political and economic problems and began to adapt their development approaches and methods of governance. According to Olowu (2012), the constitutionalisation of local authorities is one area that produced radical changes as it is expected to promote transparency and accountability whilst improving the lives of peoples at the grassroots levels. The demand for accountable performance from citizens promotes responsiveness in local government and as lives are improved, the quality of participation is restored.

“Unfortunately, in many developing local governments, decentralisation has lowered the level of performance because of local capacity constraints, corruption, and inadequate resources to meet the increased responsibilities and is often compounded by the unclear assignment of functions” (The Cities Alliance, 2006:5). Consequently, service delivery is deteriorating instead of improving and marginalised citizens are at the receiving end of these adversities.

In addition, the World Bank, (2006) found that local governments in developing countries has trouble assuming a network facilitator role in order to effectively deal with market failures as well as government failures. “This role requires a local government to operate as a purchaser of local services, a facilitator of networks of government providers and entities beyond government, and a gatekeeper and overseer of state and national governments in areas of shared rule” (The World Bank, 2006:33). Despondently, in the absence of such fundamental key roles as the above, local governments in developing countries are confronted with underdevelopment and consequently frustrated residents. In light of the above perspective, it is therefore argued that the fruits of globalisation and the information revolution should be reinforced by local governments in an attempt to improve public services and quality of life at the local level.

2.8 A Profile of Local Government in Namibia

The view of local government in Namibia cannot be fully understood without looking at the history of how municipal governments were structured in Namibia. This section thus provides a holistic overview of local government in Namibia from the former to contemporary positions.

2.8.1 Historical Perspective

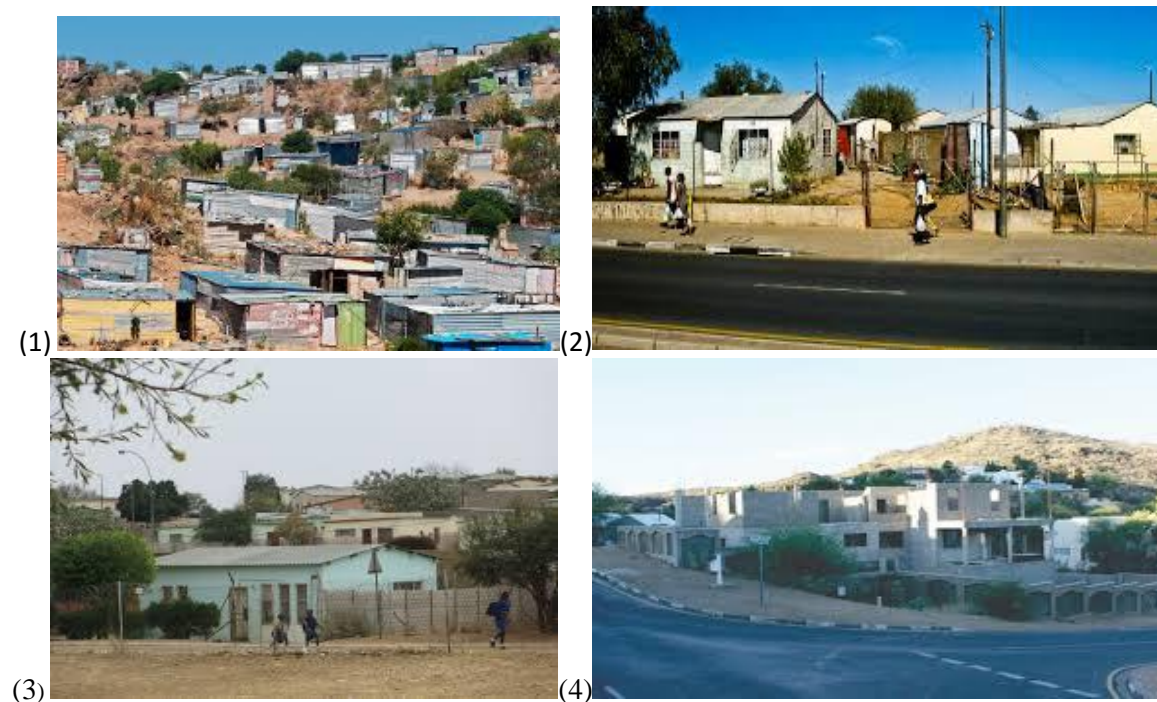
Before independence the country was divided along racial lines dividing citizens according to the colour of their skin and language they speak, as such these citizens were deprived from enjoying equal access to services. “Black people were subjected to various discriminatory legislations, exploitation, restriction of movement, abuse, denial of land and other important resources and proper education” (Sinvula, 2005:53). According to Sinvula, the apartheid regime in Namibia deprived the black population from any participation in local governance from policy formulation, decision-making and from controlling the implementation of policy. The researcher further adds that this happened as a result of imposed policies separating the terms of development based on ethnic and racial criteria and requiring municipalities to have separate residential areas for whites, coloureds and blacks.

In an attempt to discourage in-migration of black Namibians, funds earmarked for the provision of services to non-whites were limited (Fjeldstad, Geisler, Nangulah, Nygaard, Pomuti, Shifotoka and van Rooy, 2005). It therefore means that the segregation of citizens determined the level of development, the type of services as well as the level of participation. In addition, pass documents were imposed to restrict movements of black Namibians to urban areas, a law which was common in South Africa since the 1800s. Many inhabitants were based in rural areas, where they had to arrange for their own basic services.

After Namibia attained its independence in 1990, the country adopted a Constitution which in Article 102(1), makes provision for a three-tier government which is divided into regional and local units. Accordingly, the racially segregated local authorities inherited from the pre-colonial apartheid regime were abolished and formerly segregated townships were fully integrated into the municipal administration in an attempt to establish an accountable administration, delivering non-discriminatory public services suitable to accommodate the needs of all citizens, including the urban poor (Fjeldstad et al., 2005).

Unfortunately, local authorities were faced with an institutional framework which created major differences in the quality of and access to services as a result of the inherited apartheid based institutional framework for service provision, as cited in Fjeldstad et al. (2005). Where many towns of Namibia were marked by racial segregation before independence, such segregation are now determined by economic status as services have become unaffordable to the urban poor. Those unable to afford for provision of basic services are residing on the periphery of towns in dilapidated informal housing structures. This means that the types of neighbourhood thus determine the level and rate of services as depicted below ranging from (1) to (4) with (1) being the lowest level of services:

Figure 4: Level of Services



Source: (<https://www.google.com/search>)

The images above display 4 different suburbs in the capital city of Namibia: the informal settlement, social houses built before independence, middle income houses and one of the more affluent suburbs. Although Namibia has worked hard to overcome inherited discriminator, local government systems after independence, there is a need to strengthen the current local government system in order to make it more efficient and effective (Mutumba, 2013). Many local authorities are therefore determined to re-organise their institutional frameworks in order to expand the provision of broad-based services to previously disadvantaged citizens especially those living in informal structures.

Today, “Namibia is undergoing a rapid and major transition from a rural based society to one based largely in urban areas” (Weber and Mendelsohn, 2017:1). These increasing urbanisation rates have placed immense pressure on local government to balance service delivery efforts for the upliftment of the impoverished conditions of previously disadvantaged communities. Where people were excluded from their own development in the past that inclusivity has become imperative in development efforts of local governments. This reformation process should thus start with communication between government and citizens about the issues affecting them.

2.8.2 Strategic Reform in Namibian Local Government sphere

After 28 years of independence, “Namibia has developed more positively than the pessimists had feared, though not as well as the optimists had hoped” (Christiansen, 2012:43). Given the apartheid legacy and discriminatory history of Namibia, citizens have become rather sensitive to conditions set by their colonial masters. Government is therefore forced to ensure that the needs and expectations of citizens are fulfilled by restructuring service delivery methods in an effort to meet the changing needs of citizens.

Keyter (2007) identifies two main causes of public sector reform:

- The redefinition of the role of the state within society and thereby contributing to the general welfare of the society; and
- The principles of good corporate governance through increased transparency, openness, accountability and increased citizen participation and prevention of corrupt practices.

Given the challenges accompanied by urbanisation, Namibian local government needs to put in place necessary policies and find the optimal mix of public and private service delivery methods to enhance efficiency and effectiveness. According to Keyter (2007), the efficiency

of the Namibian public service is integral to the country's economic, social and ecological progress. Namibian citizens should have platforms to participate and contribute to development efforts aimed at enhancing their lives while public officials strive towards rendering services according to the principles of good governance. In its quest to reform service delivery, Namibia has put in place various statutory frameworks and policies to direct service delivery. Decentralising authority and responsibility from central to regional and local governments was regarded as a significant step in redefining the role of the state as it aims to ensure effective, efficient and economically sound service delivery at local level.

According to the Ministry of Regional and Local Government and Housing and Rural Development (MRLGHRD, 2013), empirical evidence suggests that there is a growing disillusionment of citizens based on concerns of corruption, lack of responsiveness to the needs of the poor and the absence of viable participatory arrangements that link governments to the ordinary citizen. This situation has led to a loss of confidence in development efforts as authorities lack desired responsiveness towards the needs of citizens which creates impetuous social unrest.

The ICT revolution is seen as proverbial contribution to local authority reform, where citizens can interact and relate through means and media. These platforms offer opportunities for participatory, responsive and inclusive governance structures where citizens can share in the development and reconstruction of their communities.

Christiansen (2012), however, found that Namibia has not even developed the basic pre-stages of ICT business while many other countries (especially in Asia), have very rapidly established ICT industries and up to now there have been no signs that this situation will change in the near future. The ambitious goal of transforming Namibia into a competitive player in information and communication technology (ICT) by 2030 now seems unrealistic. The government has, however, moved progressively in achieving this goal by rolling out the e-Government policy for improvement in public service delivery. This is in addition to various other legislature are aimed at reforming service delivery methods and uplifting the lives of impoverished citizens.

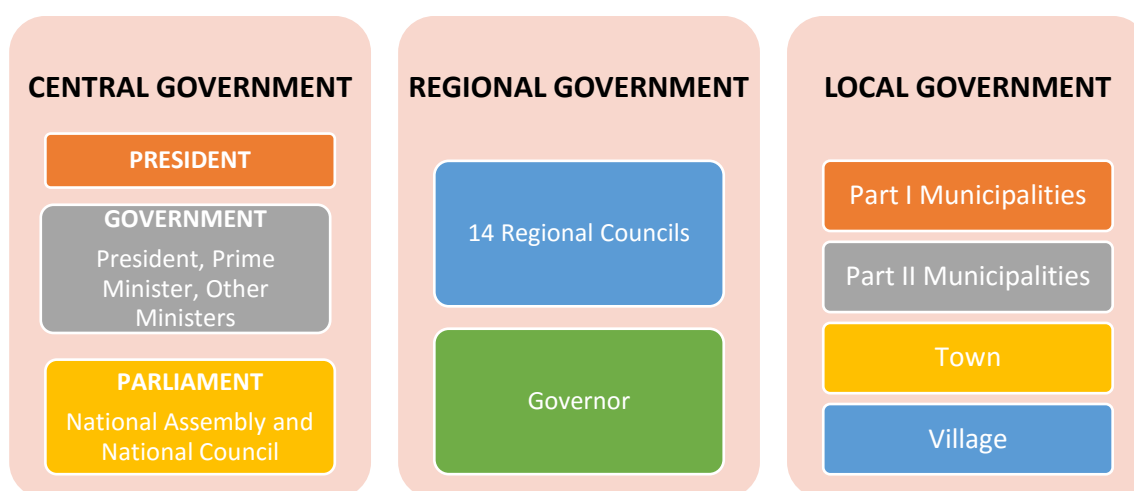
2.8.3 Statutory framework of Local Government in Namibia

This section draws attention to some of the most significant legislation pertaining to local democracy in Namibia. According to Van der Walt (2004), legislation ensures that government bodies, such as municipalities, adhere to the stipulations of particular statutes in the designing

and execution of policy programmes. Namibia has a sovereign constitution which provides the legislative framework for local authorities in the country.

The Namibian Constitution, which was adopted in February 1990, provides for the establishment of sub-national governments and a system of decentralised government within the confines of a unitary state and national policies, ideals and values. The Constitution established a three-tier system of governance in Namibia comprising of the central government, regional government and local government as depicted below (Khomas Regional Council, 2015).

Figure 5: Government Structure of Namibia



Source: Adapted from Khomas Regional Council (2015:17)

According to Figure 5, Namibia is divided into 14 regional councils and 57 unitary local authorities comprise 13 municipal councils, 26 town and 18 village councils. The municipal councils are further subdivided into 3 ‘Part I’ municipalities (cities) and 15 ‘Part II’ municipalities.

The national government ensures that the country is equipped with the relevant policies and regulations which contribute to national standards and norms. Regional and local governments are two distinct spheres of government responsible for extending services to citizens in their respective geographical locations.

Article 102 (1-2) of Namibia’s Constitution provides for Regional Councils and Local Authority Councils to be the principal governing body in their area of jurisdiction, freely elected in accordance with the Act of Parliament (Republic of Namibia, 2018). These Acts are known as the Regional Councils Act (22 of 1992) and the Local Authorities Act (23 of 1992),

which establish the distinct functions and powers in respect of Regional and Local Authority Councils. It therefore means that these Regional and Local Authority Councils have the power to create their own regulations applicable to their area of jurisdiction but still in the confines of the constitution. This provision was made to bring government closer to the communities and to encourage active participation in developmental activities within various regions.

2.8.3.1 The Regional Councils Act No. 22 of 1992

To further direct the execution of powers and functions as stipulated in the constitution, the Regional Councils Act No.22 of 1992 was established to provide the legislative framework for exercising its authority within the regions. The Act provides for the establishment of regional councils and defines their rights, powers, duties and functions of such regional councils (Hopwood, 2005). The Regional Councils are responsible for providing services to the rural populace and have the power “to raise revenue or share in the revenue raised by central government within the regions for which they have been established” (Hopwood, 2005:3). The capacities of Regional councils were further increased through the establishment of the Decentralisation Enabling Act.

2.8.3.2 Decentralisation Policy and Decentralisation Enabling Act No.33 of 2000

The Decentralisation Enabling Act aims at enabling the smooth and effective implementation of the Decentralisation policy. Hopwood (2005) describes decentralisation as a means of creating participatory democracy in which the people at grassroots can have a direct say in the decisions that affect their lives. The stated aim for involving people in the decision-making process is to extend democracy based on National ideals and values in order to ensure economic, cultural and socio-economic development. As such, “the implementation of the decentralisation policy in Namibia aims to decentralise functions from the line ministries to the regional councils and local authorities first by delegation, and ultimately by devolution of the political and administrative responsibility of the service provision to the regional councils and local authorities” (Khomas Regional Council, 2009:1). The Act makes provision for the decentralization of service delivery functions to local government bodies as well as Regional Council.

2.8.3.3 Local Authorities Act No.23 of 1992

Each region consists of urban centres which are governed by local governments elected by the relevant communities. For purposes of local government, the constitution provides for the establishment of the Local Authorities Act No.23 of 1992.

The Act (23 of 1992) allows for all urban centres to establish their own Councils (Municipal, Town or Village) entrusted with legislative authority to administer their own local issues. Municipal councils are further classified in two types according to their ability to pay costs out of its own funds. Part I municipalities generally have a solid financial basis and considerable financial autonomy, while Part II municipalities depend on intergovernmental transfers, because of their fragile financial basis which makes them subject to control exercised by the Ministry of Urban and Rural Development (Kuusi, 2009).

The Swakopmund Municipality is one of 3 municipalities in Namibia classified under Part I municipalities along with Walvis Bay and Windhoek, the capital city of Namibia. These three urban areas occupy about 33 percent of the country's total population and are confronted with various challenges, which include migration from rural areas (The World Bank, 2002). The accelerated influx of migrants requires for progressive integrated planning approaches, which complements the country's main planning documents comprising the Harambee Prosperity Plan, the 5th National Development Plan and Namibia's Vision 2030.

2.8.4 Regulatory frameworks in Namibia

In an attempt to direct and coordinate development efforts towards a common goal known as Namibia's Vision 2030, Namibia adopted a series of National Development Plans (NDP) to direct the course of national development. The country launched its 5th NDP in 2017 which builds on the successes and achievements as well as the challenges of the previous four plans which were effected since 1995 (Republic of Namibia, 2017). In addition to these developmental plans, the Harambee Prosperity Plan (HPP), which is a targeted Action Plan, was introduced by the president of Namibia during April 2016, to accelerate development in clearly defined priority areas.

2.8.4.1 Vision 2030

Namibia's sub vision under the overall vision for the year 2030 is as follows:

“Advanced microelectronics-based Information and Communication Technologies (ICTs) are used to achieve social and economic transformation in Namibia; the costs of ICTs continue to fall as their capabilities increase, and ICTs are being applied throughout all sectors of the economy and society to serve development goals” (Republic of Namibia, 2004:79).

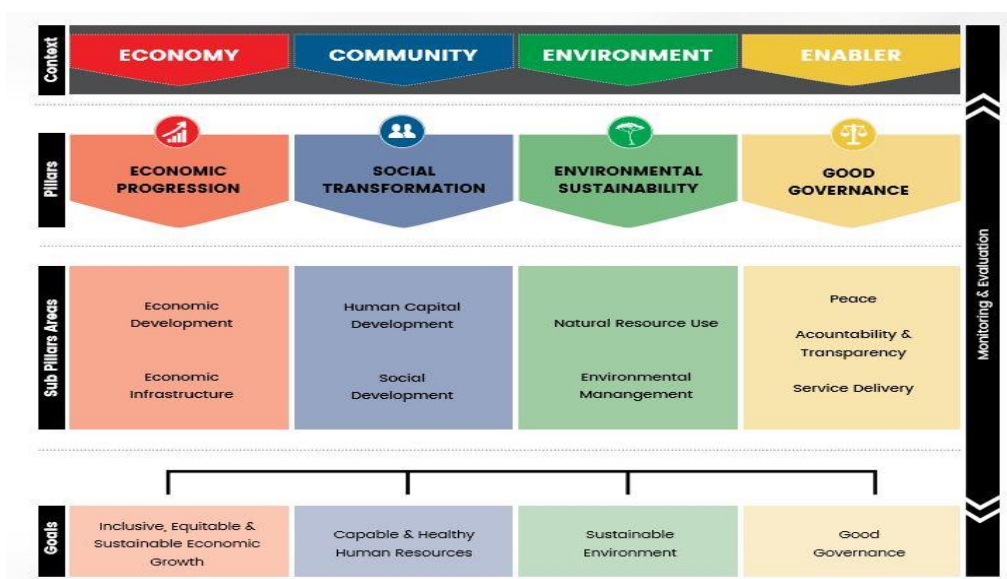
It therefore means that ICT is a crucial enabler for socio-economic development and knowledge-based economy as envisaged in Vision 2030. This requires the widespread availability, affordability and accessibility of a full range of ICT networks as well as on-going

skills development to support and enable the full utilization of available ICTs and digital inclusion. To ensure that his goal is realised, the country has put in place various national plans of action which drive national developments.

2.8.4.2 National Development Plans (NDP)

NDP 5 is the fifth in the series of national development plans Namibia has put in place to direct the course of national development. It is also the third last medium-term plan before the country reaches its pinnacle of development endeavours for 2030. “The NDP 5 framework is organised around the four interconnected pillars that are found on the principles of sustainable development and aligned with the Harambee Prosperity Plan (HPP), Namibia’s Vision 2030, as well as global and continental development frameworks to which Namibia is committed such as Agenda 2030, Sustainable Development Goals (SDGs), The Paris Agreement (CoP21); African Union (AU) Agenda 2063 and SADC Regional Indicative Strategic Development Plan (RISDP)” (Republic of Namibia, 2017:7). The interconnected pillars of the NDP 5 are as follows:

Figure 6: NDP 5 Pillars



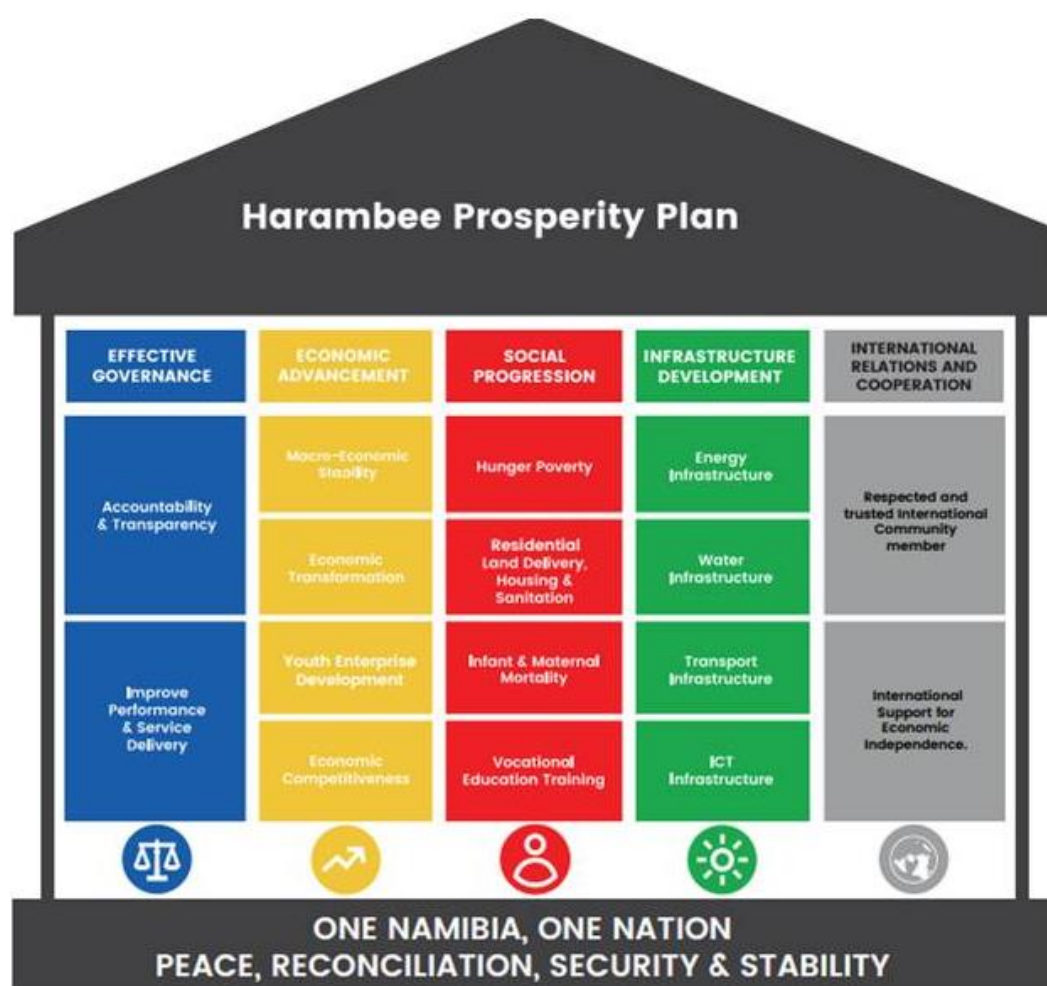
Source: (Republic of Namibia, 2017: vi)

ICT is regarded as a crucial enabler for socio-economic development and knowledge- based economy and although it is situated under the pillar of economic progression, it contributes to the goals of all four pillars. The goal of NDP 5 in terms of ICT is that “the Namibian population will have improved coverage of broadband communications, broadcasting, postal and media services to facilitate improved access to information and innovation by 2022” (Republic of Namibia, 2014:41).

2.8.4.3 Harambee Prosperity Plan (HPP)

The purpose of the HPP is to complement the long-term goal of the NDPs and Vision 2030 by accelerating development in areas where progress is insufficient. It is a targeted Action Plan with clearly defined priority areas that incorporates new development opportunities and lays the basis for attaining prosperity in Namibia (Republic of Namibia, 2016). The plan is built on four Pillars that are made up of sub pillars, to form the frame/structure of a House:

Figure 7: HPP Pillars



Source: (Republic of Namibia, 2016:1)

According to the plan, the provision of e-Government services to the public contributes to the achievement of effective governance and expanding ICT infrastructure is a supporting pillar under infrastructure development. One of the challenges identified in the plan is “the lack of understanding of the relevance of ICT, which results in low resource provision, and usage of

available ICT capacity” (Republic of Namibia, 2016:55). The plan calls for the effective sharing of information which will enhance the use of ICT for improved service delivery.

It is important that the strategic priorities and plans of the various regional and local governments are aligned to the country’s regulatory frameworks in order to effectively contribute to the development of the country.

2.8.4.4 ICT Over-arching Policy

As Namibia recognises the impact ICT has on development across the globe, the country developed an Over-arching Policy for ICT which will facilitate the growth of ICT in Namibia. “The main aim of this Policy is to provide Namibia with a vision and policy direction for development in the years ahead as well as to strengthen Namibia’s position in the dissemination and use of ICT” (Ministry of ICT, 2009:3). The specific objectives of the ICT policy in Namibia are as follows:

- To enhance the market and regulatory structures of ICT in Namibia, and to fully liberalise (open, competitive markets and private sector participation) all telecommunications services following a controlled process;
- To establish streamlined, efficient and effective regulation of the ICT industry on a fully transparent, technology neutral and competitively balanced basis;
- To provide universal access to information and communication facilities in Namibia for all communities (to telephone, Internet, and multi-media services), with an access point in every community or village established;
- To enable affordable prices for telecommunications services, particularly low-income groups;
- To enable profitable investment opportunities in all segments of the market;
- To successfully implement Government ICT initiatives in education and training;
- To successfully implement e-Government initiatives by 2015 and
- To establish Namibia as a first-class regional ICT hub that will contribute towards job creation.

Given the above, it may be inferred that the ICT Over-arching policy is designed to embrace all sectors of society in order to drive the direction of ICT growth in the country. The objectives promote inclusivity and accessibility of all public and private sectors towards the growth of the ICT sector with the intention of digitising the entire country.

2.8.4.5 e-Government Strategic Plan for the Public Service:

The compilation of an e-Government strategic plan follows as part of the objectives flowing from the ICT policy and outlines the provision of public services to citizens anytime and anywhere. The objectives of the strategic plan are to provide guidelines for an overarching framework that will allow:

- Access to information about political processes and government services;
- To undertake a transition from passive information access to passive citizen participation by informing citizens of all issues, soliciting and representing them in all forums where public opinion is essential and providing citizens with the necessary information to vote;
- Satisfying the needs of the public by providing preferred public services and simplifying their interaction with government;
- Provision of speedy, accountable, effective and efficient processes of performing administrative services and
- Widening access of rural and marginalised citizens of the Namibian society while increasing confidence in online services.

In light of the above, the uptake of e-Government services by all government departments will ultimately promote effective governance by offering accountable and transparent public services. The success of this document, however, requires strong support from leadership and the interlink age of services to ensure universal access for all citizens.

2.9 Summary

This chapter discussed the different perspectives of various authors on the concept of local government. It provides an historic perspective of the existence of local government and its features with emphasis on the idea that local government aims at improving the quality of governance by bringing government closer to the people. The historic trends related to local government indicate that the roles in public institutions have not remained static but dynamic, as the needs of citizens also change.

In African countries, the picture of local government services is somewhat distorted, especially in countries where political systems were built on historic patterns set by colonialism. These include developing countries such as Namibia where development has been marked by a discriminatory history of apartheid that negatively affected development efforts at local governments. Subsequently, local governments are compelled to find the optimal mix to

balance service delivery efforts for the enhancement of the impoverished conditions experienced by previously disadvantaged communities. There is thus a need for Namibian local government to restructure service delivery methods in an effort to meet the changing needs of citizens. Where people were excluded from their own development in the past that inclusivity has become imperative for their future. The key findings displayed in the review reiterate that Local government cannot function in isolation but depends on the participation of its people, in the planning and implementation of services that affect them.

The next chapter will provide a broad overview of mobile governance, its history and potential of reforming service delivery, especially at local government sphere.

CHAPTER THREE: MOBILE GOVERNMENT

3.1 Introduction

This chapter intends to demonstrate the significance of m-Government, its benefits as well as the limitations and barriers for service delivery. m-Government is a form of e-Government offering governments the opportunity to replace outdated service delivery methods in pursuit of creating an enabling environment for e-Government to enhance service delivery.

To begin this chapter, the background of ICT as the foundation of this study is presented. It then focuses on how changing roles of government lead to the search of new ways that can improve local governments. A comprehensive illustration of e-Government, its extension to mobile platforms known as m-Government, structure, resources as well as implementation challenges are presented.

Subsequently, a comparison of selected local authorities of India and South Africa serve as model for Namibia's local authorities with the emphasis on Swakopmund. These case studies provide exemplary lessons of successful implementation of mobile government. This chapter concludes with current trends, conversations and a reiteration of the overall strengths and weaknesses in m-Government as presented by the literature, and the gaps identified, to direct the study on m-Government at the municipality of Swakopmund.

Information, Communication and Technology is a crucial enabler for socio-economic development and a knowledge-based economy as envisaged in Vision 2030. This requires the widespread availability, affordability and accessibility of a full range of information, communications and technology networks and services - from fixed and mobile telephony, radio and television broadcasting, high speed data and Internet services, to the full range of broadband-enabled services. It also requires ongoing skills development to support and enable the full utilization of available ICTs and digital inclusion.

3.2 Historic background of ICT

According to Swilling and Annecke (2012), the era of ICT has been deployed globally since 1971 in the USA, transforming production, consumption, distribution, finance and communication around the world. Since the early 1990s, this transition presented beneficial opportunities for governments to improve service delivery through ICT programs used internally, inter-governmentally and externally. In their book entitled “Just Transitions” Swilling and Annecke (2012) described the theory of sociological transitions and presumes that the world is currently in its initial stages of sustainability, which marks the deployment of innovations and the use of less energy and materials while simultaneously pursuing conventional development targets. Since ICT developments are fueling the industrial energy savings, the authors argue that the use of ICT replaces old methods of service delivery with more environmentally safe solutions.

What preludes the ICT era is the use of the Internet, which has developed as one of the biggest revolutions of recent times (UNESCO, 2005). “The Internet revolution has ushered in enormous possibilities for leveraging technology on a global scale, using ICT applications to increase efficiency, accountability, enhance transparency, increase revenue collection and facilitate Public Sector Reforms” (UNESCO, 2005:7). Subsequently, the notion of e-Government evolved using ICT along with other reforms to deliver a wide range of services through the Internet (UNESCO, 2005). e-Government therefore supports developmental efforts through the provision of improved processes and information access which leads to the achievement of development goals.

The positive impact of ICT on governments around the world has substantiated the need to prioritize ICT in the provision of services. “Communications technology has fundamentally changed the way people live, work, and interact socially” (Williams, 2010:1). Ways and means of service delivery became modernised especially with the use of the Internet, through which e-Government is most visible. e-Government has transformed work processes and interaction between government and society through the provision of services and information through the Internet (Isabel and Bailoa, 2016). Various public entities have designed websites where they provide information and services to the public. Using the Internet as a governance tool has allowed positive changes in the relationship between the state and citizens, as it is more interactive and citizen-centric.

Following this review of ICT and how it transforms service delivery, it is argued that developing countries need to invest in ICTs as a key enabler of growth in realizing the development agendas of governments (OECD, 2003). In fact, many African countries can confirm the outstanding strides that ICTs have made in driving institutional reform, triggering policy changes and spurring investment among sectors across the continent (Williams, Mayer and Minges, 2011). Services have become more available, more people are connected to mobile networks, regulatory bodies are in place and services have become more affordable and accessible. It is thus evident that the ICT era has inspired radical increase in the efficiency, productivity and consequently competitiveness of firms and countries.

Accordingly, “ICT has a strong impact on the economy of any country and thus carries the potential to contribute to more rapid growth in the future. It has therefore become a key service delivery mechanism for many governments around the world” (OECD, 2003:17). In addition, Sanou (2015:1) states that “the ICT revolution has driven global development in an unprecedented way and plays a significant role in achieving future sustainable development goals as the world moves toward a digital society connecting everyone and creating a truly inclusive information society.”

In effect, local governments can play an even more significant role in the application of ICTs in their service-oriented interaction as the arm of government which is closest to its citizens. They have considerable potential to assist in the process of integrating ICTs into the daily lives of its citizens and should therefore ensure that they adopt information society tools and working practices if they are to remain responsive to citizens’ needs.

This reconfiguration of the public sector drives the redistribution of knowledge, power, and purpose in the light of new technological realities and has become the driving force for many governments around the world which continue to collaborate and investigate ‘picture perfect’ solutions for governing (Subban, Nzimakwe and Pillay, 2007).

3.3 Opportunities and benefits of e-Government

e-Government is regarded as a new reform in itself, which came as a result of New Public Management in public administration (Bernhard, 2014). A review of literature shows that “the

crucial element of e-Government is the use of ICT tools to reinvent the public sector by transforming service delivery with customers and the businesses” (Ndou, 2004).

The term ‘e-Government’ is used to describe the use of ICTs, and particularly the Internet, as a tool to achieve better government. It is considered a driver of public sector reform due to its perceived potential to improve the quality of the services offered to citizens and businesses, and to rationalise the internal organisation of the administrative apparatus (Burke, 2012). The pragmatic role that this phenomenon presents was adopted by many governments especially in the developing world, to bring about a paradigm shift in public management.

Through e-Government, citizens are provided with the option to connect with government through the Internet in order to receive needed services or information in the most cost-effective manner. In this way, relationships between government and citizen are enhanced, democracy is improved, human dignity and autonomy is promoted and efficient delivery of services invigorated. “The most important results of the transition from traditional government to e-Government are simplification of public service delivery to people, smoothing the flow of information, and cost reduction in organizations” (Fasanghari and Samimi, 2009:627).

According to Qina (2015), these public services are mainly deployed through four primary types of interaction as outlined in the table below.

Table 2: e-Government Platforms for Public Services

Government to Government (G2G)	The distribution of data and electronic information within various government departments
Government to Business (G2B)	To conduct commercial electronic transactions this mutually benefits government and businesses.
Government to Citizen (G2C)	The electronic delivery of public services enabling citizens to transact with government or acquire relevant information regarding services offered
Government to Employee (G2E)	For purposes of constant interaction between government and its employees.

Source: OECD/ITU (2011)

These classifications enable various users to engage with the relevant authorities on a range of matters, including problems with or comments on services.

“The terms ‘e-Government’ and ‘e-Governance’ are synonymously used at various forums, but the basic distinction between the two lies in the fact that government is the institution itself, whereas governance is a broader concept describing forms of governing which are not necessarily under direct authority of the formal or central government” (UNESCO, 2005:8). This implies that e-Government focuses on the mode of service delivery, while e-Governance indicates how this innovative means of service delivery should be used effectively for interaction and participation. “It therefore makes sense for the government sector all over the world to adopt e-Government for streamlining its processes, connecting all the stakeholders, cutting costs, improving the delivery of services, and most importantly, realizing the vision of good governance” (UNESCO, 2005:11). Unfortunately, the downside of e-Government is its low adoption which has resulted in the exclusion of citizens from the use of these technological services.

Kaisara and Pather (2009) concur that the exclusion of citizens presents a barrier to e-Government and thus calls for effective legislation that bridges this digital divide. In this regard, Qina (2015) advises that governments need to put in place strategic frameworks which encompass capacity building, policy, re-engineering, funding as well as a prioritisation framework for effective implementation of e-Governance. “The decision to embark on e-Government is an important step that support and enhance government performance and a more connected society which is inevitable in changing times” (OECD/ITU, 2011:13). These strategic frameworks can thus be used to assess e-readiness which leads to effective e-Government, and ultimately, e-Governance. Recognising the use of the most innovative forms of e-Government and its fundamental functions is important for the improvement of public services.

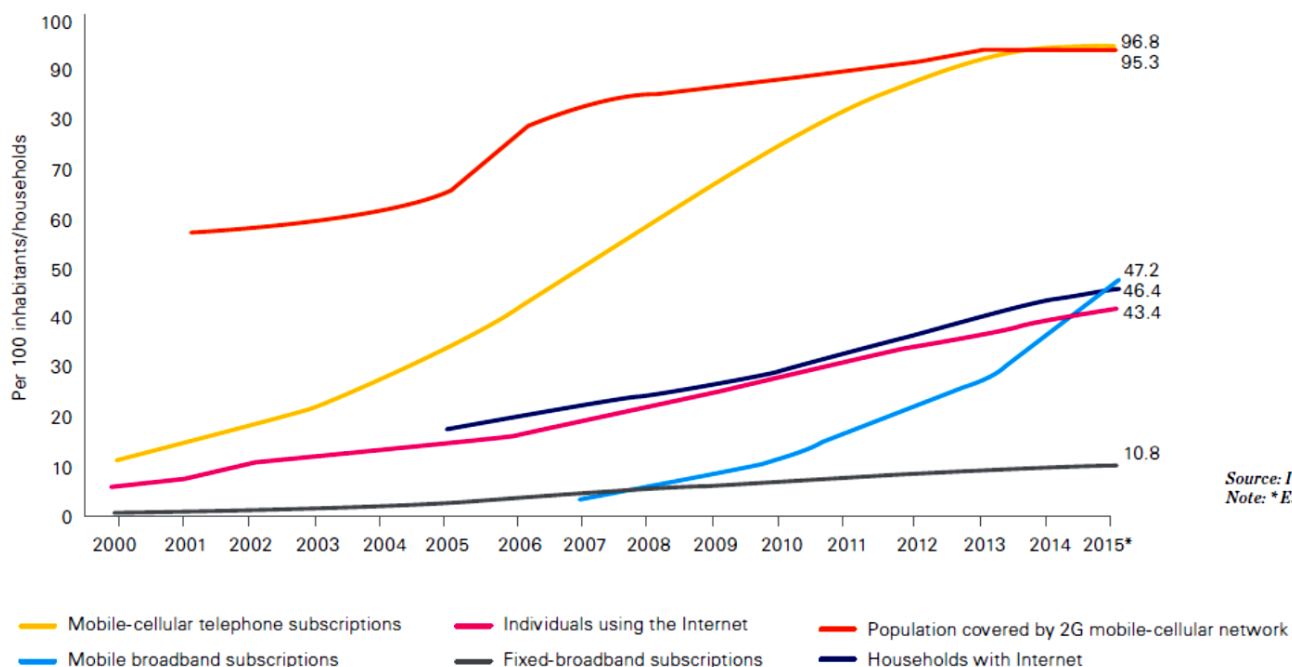
3.4 The emergence of Mobile Government

The most significant barrier of e-Government services is the access to Internet-based e-Government services, which comes as a result of low penetration levels of Internet in remote areas. With the introduction of the mobile phone, those in remote areas can be easily reached and such services become more accessible. According to the International Telecommunications Union (ITU), the Internet revolution has left gaps especially in developing countries where many citizens are not connected; however, the deployment of cellular subscriptions worldwide

exceeded the growth in ICT access, with more than 7 billion mobile cellular subscriptions worldwide, by the year 2000.

The ITU has through their assessments of the UN Millennium Development Goals (MDGs) found that growth in mobile devices has not only connected people around the world but has driven global development unprecedentedly. The introduction of mobile technology has evidently spread rapidly and thus filled many gaps created through the deployment of e-government. The table below indicates the exponential growth of mobile subscriptions since the year 2000:

Figure 8: ICT Growth



Source: (Sanou, 2015)

According to the data presented by the ITU in Figure 8, it is evident that mobile cellular subscriptions grew exponentially in a period of 15 years, and subsequently mobile broadband subscriptions also grew by an immense 47%. Undeniably, mobile usage exceeded fixed broadband subscriptions leaving a massive gap between the population covered by mobile networks and fixed broadband subscriptions.

With the launch of mobile networks across Africa by the end of the 1990s, there was an explosion in the availability of telecommunication services with most of the growth in ICT

infrastructure being in mobile networks, which have used predominantly wireless technologies (Williams, Mayer and Minges, 2011). Mobile networks were extended to rural areas, increasing coverage numbers and reducing prices, as services became available to many more citizens on a regular basis.

After studying the transition from e-Government to m-Government, Kushchu and Kuscu (2004:1) found that “the mobile access - anywhere any time - is becoming a natural part of daily life, and as such many governments especially where there is a high digital divide will have to transform their activities according to this demand of convenience and efficiency of interactions for all parties”. As a result of the rapid speed at which mobile phones have infiltrated society, especially in developing countries, this transition from e-Government to m-Government depicts a more fundamental change in the application of ICT technologies to a mobile platform. Kushchu and Kuscu (2004) thus define m-Government as a “strategy and its implementation involving the utilisation of all kinds of wireless and mobile technology, services, applications and devices for improving benefits to the parties involved in e-Government including citizens, businesses and all government units”.

Mobile platforms offer wider accessibility personalised services and are more user-friendly. Unlike the Internet, mobile connectivity offers more personal freedom as well as greater access to information while connecting citizens to services wherever they are and at their own convenience (Isabel and Bailoa, 2016). While m-Government generates platforms for active citizen participation, Governments have the opportunity to engage with the public. Since mobile devices have surpassed the predominant means of sharing information, m-Government has evolved as the next big wave for information and communication technology (ICT) used in the public sector.

3.5 Key features of Mobile Government

Mobile government uses wireless technologies to deliver government services and information through mobile tools such as mobile devices, networks and associated technologies (Raja and Melhem, 2012). Mobile government is not limited by the physical or by location but has the potential to be operational anywhere and anytime.

In addition, it strengthens accountability and transparency in public services by encouraging wider citizen engagement and participation in matters affecting their lives. Mobile tools are available in a wide range with different features, which include:

- mobile networks (such as broadband, Wi-Fi, and voice-centric),
- mobile devices (tablets, smartphones, feature phones), and
- Their associated technologies (voice calling, sms text messaging, location detection, Internet access), and software in the form of network services and applications (Raja and Melhem, 2012).

Mobile tools, especially mobile devices, are no longer restricted to higher socio-economic levels but can be used by a citizen even in the remotest area of a country provided that the wireless infrastructure are in place (Du Preez, 2009). With mobile tools being widely accessible, it has become the most preferred means of communication by the majority of citizens worldwide. Developing countries in Africa are using mobile devices at exponential rates, urging governments to ensure that the needed infrastructure is in place. These mobile devices provide various ways of use which include:

- short messaging services (SMS);



- unstructured supplementary service data (USSD);



- multimedia messaging services (MMS); and



- Mobile web and data applications (Mpinganjira, 2014)



The uses of mobile devices provide governments with different possibilities through which services can be delivered, considering the fact that mobile devices also vary in terms of features and functions. Although most Africans make use of low-end entry level handsets to make and receive calls as well as send and receive a sms, improvements in mobile technologies have produced more mobile phones with Internet access (Mpinganjira, 2014). Evidently, the trend at which technology advances, leaves little time for its sustainability but rather ensures that it adjusts to the preferences, skills and abilities of its users. So too, governments should be aware of the preferences, skills and abilities of its citizens in order to provide efficient and effective services through mobile platforms.

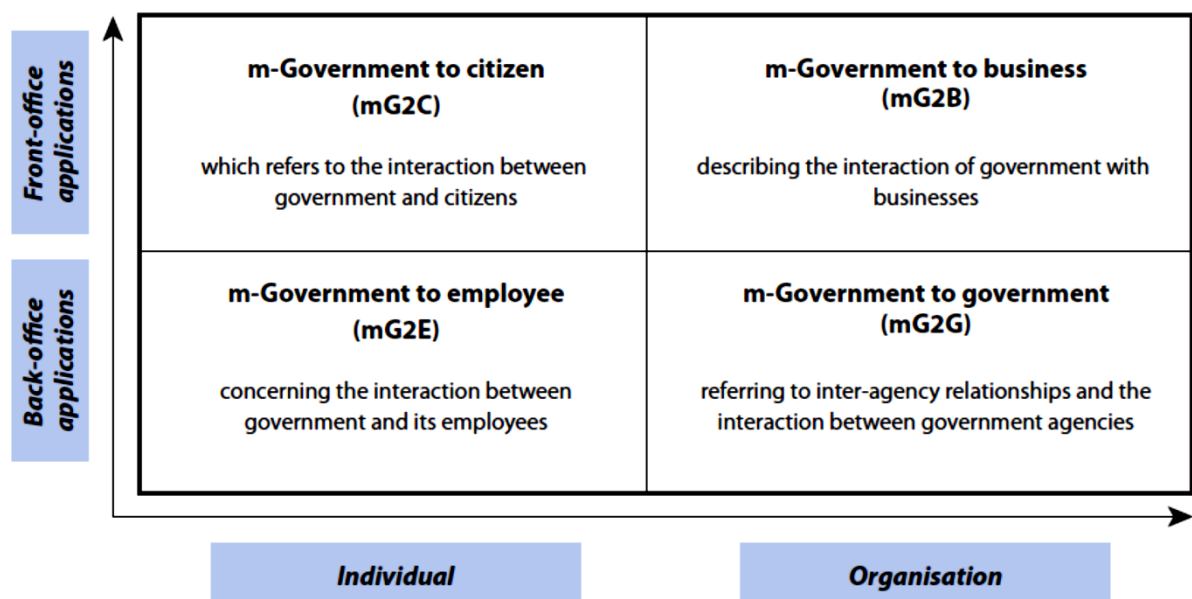
In addition to the above, more and more mobile devices are now connected to the World Wide Web (www) to enable users to be connected wherever they are. These devices now make provision for social media applications for distribution of images, videos and audios across various social platforms (Ellison and Hardey, 2014). Using technologies offered through m-Government “allows for opportunities to improve the internal operation of state agencies and create a more integrated platform for public sector employees, whether the data required is on the Internet, network or portable device in their control” (Jotischky and Nye, 2011:4).

3.6 Opportunities and benefits for m-Government

The OECD/ITU (2011) found that “mobile devices’ have lower costs and ease use, removing barriers and empowering citizens to quickly and efficiently connect to government for health, education, employment, public safety, financial, transportation, legal and other services. Furthermore, mobile government accelerate the interaction between government and citizens to enhance social and economic conditions for the betterment of all. The opportunity to expand government operations to mobile platforms to deliver developmental outcomes ultimately improves accountability and transparency in governance.

Through mobile technology, governments can be transformed to a more citizen centric operation through four important sectors as provided by e-Government. The four primary delivery models of m-Government are illustrated below:

Figure 9: Delivery Models of m-Government



Source: (OECD/ITU, 2011)

As indicated above, the opportunities offered through mobile communication technologies open up a plethora of opportunities for businesses and governments alike. The amalgamation of mobile devices and its transformational capacity therefore enables citizens’ access to existing services, expands delivery of new services and increases citizen participation (OECD/ITU, 2011).

The OECD/ITU (2011) also identifies the following benefits which accompany m-Government:

- Communication options to reach all citizens even in remote areas;
- Citizens have access to information anytime, anywhere;
- Provision of services are more personalised;
- m-Government options are more cost-effective;
- The potential to better manage allocated resources;
- Increased Democracy;
- Faster information flow;
- Well-timed Health and public safety alerts;
- Economic opportunities for buyers and sellers on global platform;
- Improved productivity for businesses and entrepreneurs and
- Promoting a Green economy because of reduced energy consumption.

In light of the above benefits, it is hard to ignore the potential offered by mobile technologies, which are mutually beneficial to both governments and its citizens. Moreover, m-Government has confirmed the potential to improve the socio-economic conditions of any government. It therefore provides positive economic and social impacts especially for developing countries in Africa to stay connected on global platforms allowing for greater sharing, re-use and interoperability.

3.7 Promoting Digital Democracy

As displayed through public service protests in various newspapers, the call for accountability and transparency in public services can no longer be ignored. Mobile technology not only addresses the need for government to engage with citizens, but also offers citizens the platform to engage with political leaders.

Technology increasingly plays an important role in connecting citizens to political parties to actively involve them in identifying issues and designing solutions, as well as to improve the quality and legitimacy of decision-making (Simon, Bass, Boelman and Mulgan, 2017). Embracing new technologies for improved participation with citizens increases transparency and creates a culture of openness which therefore builds trust between citizens and decision-makers.

Tsagarousianou in van Dijk (2013: par 24) defines digital democracy as the pursuit and the practice of democracy using digital media which have the following benefits:

- Improves political information retrieval and exchange between governments, public administrations, representatives, political and community organizations and individual citizens;
- Supports public debate, deliberation and community formation, and
- Enhances participation in political decision-making by citizens.

As the world is transforming towards a digital era, citizens are becoming more informed and aware of matters affecting their lives through technological platforms available to them. “Accessible, reliable and valid information is therefore a necessary condition of viable government and a healthy democracy” (van Dijk (2013: par 24). Conflict is bound to happen in circumstances where access to important information is limited because citizens generally depend on their own assumptions. Through digital democracy, citizens and voters are well informed and can therefore respond appropriately providing informed information which may be crucial during decision-making.

“Mobile telephones and associated applications cannot substitute for community mobilization and democratic processes, but they have played a role in organizing citizens, especially through social media” (Raja and Melhem, 2012:90). Governments and citizens can therefore consider shifting the current state of affairs towards a platform of more open engagement as well as promoting democratic politics through electronic initiatives. In this era of digital democracy, the scope and role of local government needs to be challenged in order to allow for more interactive and participatory service delivery. Where levels of citizen engagement are low, the utilisation of mobile government tools need to be incorporated to ensure that residents are involved in all aspects of local governance.

Mobile technology offers an enormous scope for innovations in direct democracy and participation, with numerous means to modify outcomes which empower the community (Bucek and Smith, 2000). Such innovations aim to revitalise local democracy and enhance accountability and transparency in policy development and democratic decision-making. Thus, government becomes more responsive to the needs of citizens and citizens more informed about service delivery constraints and implementation.

3.8 Responsiveness and efficiency of m-Government

Since the world is shifting towards digital technology, the expectations of citizens also shift as they expect government to become part of this innovative digital world. Digital transformation is becoming more critical by the year, calling on governments to make use of these platforms to respond to the needs of citizens.

“Responsiveness is about being fast and right because failure to respond to customer inquiries promptly with the right information can lead to disappointed citizens” (Mpinganjira, 2014:137). Citizens seeking information desire satisfactory outcomes which require technological changes to replace ageing infrastructure. The author therefore explored content development on mobile platforms which will be responsive to citizens’ enquiries, and found that the delivery of information services on a mobile platform gets more prominence in cases where non-standard personalised responses are provided which will be challenging and not feasible. The responsiveness on mobile government platforms may be limited to ‘mobile-ready’ formats which may hamper the provision of traditional e-Government content on m-government platforms. Mpinganjira therefore urges governments to be aware of the limitations to services available on mobile platforms in order to avoid frustrating citizens, but to maintain easy access to much needed quality information in a timely manner.

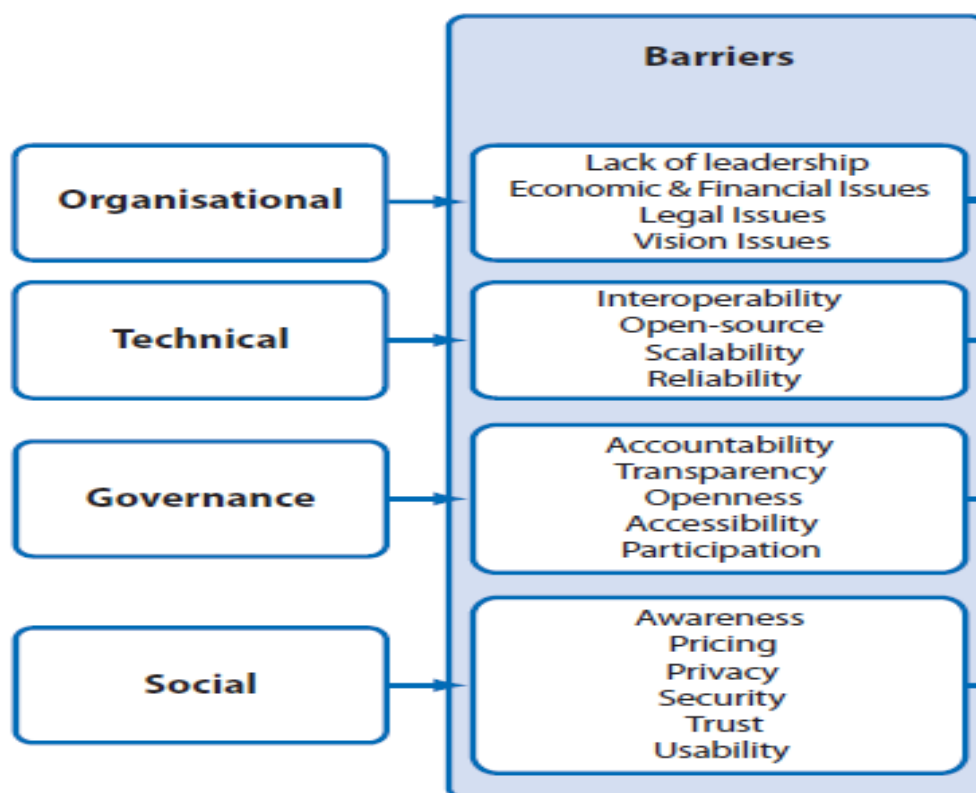
According to the OECD/ITU (2011), mobile technologies can provide responsive information exchanges by instant information access and release. For example, “Government-to-Citizens services enable citizens to interact with government in a way that is responsive to citizen needs and communication preferences” (OECD/ITU, 2011:42). Providing feedback to citizens in this manner ensures that officials and institutions are being responsive to the community while they provide public services and in so doing, instil trust in the government.

Du Preez (2009) reaffirms the mainstream views as interpreted by the OECD, that keeping citizens informed through mobile government platforms improves their ability to make educated decisions. Examples where mobile technologies are used to keep citizens informed are found in various countries: alerts pertaining to passport renewals, social security payments, and parliamentary notices, for example, were created to improve communication between government and citizens.

3.9 Challenges and shortfalls of m-Government

Governments have to identify the challenges, opportunities, weaknesses and strengths which could hamper or support the implementation of m-Government so that the gaps can be dealt with in a pro-active manner. According to Raja and Melhem (2012), the response to the continuous demand for good services as well as the actual transformation to implement new technologies, are key challenges for governments who wish to use m-Government services. The use of mobile phones and networks are widespread. Melhem, (2012) cautions that governments should ensure that the citizens for whom these services are earmarked, are equally ready to adopt these services because knowledge gaps could hamper access to such public services. Access to services limited the implementation of e-Government in the past and should thus be given careful consideration when decisions are taken for such transformation. In addition, institutional capacity poses a challenge. Raja and Melhem (2012:105) indicates that “response to citizen demands to mobile platforms exponentially increases the capacity for citizens to demand services and good governance”. Before embarking on mobile service delivery, it is therefore important that all relevant resources be in place and that all stakeholders are involved in the implementation process.

The table below summarises the implementation challenges of m-governance:

Figure 10: m-Government implementation challenges

Source: (OECD/ITU, 2011)

The challenges reviewed above are admittedly diverse depending on the local context; however, these examples indicate the potential barriers mobile technologies may have with respect to organisational, technical, governance and social aspects. It is therefore fundamental that while adopting mobile technologies, careful consideration be given to the possible effects on internal operations as well as the social impact on the community at large. According to Borucki, Arat and Kushchu (2005), such efforts may minimize the chances of failure while increasing the chances for success ultimately leading to more effective public service delivery.

Al-Khamayseh and Lawrence (2005) argue that public pressure for service delivery leads to the increase in demand for mobile applications. Research on the strengths, weaknesses, threats and opportunities is essential in the successful transition and/or integration from e-Government to m-government. This means that while great consideration is given to the socio-economic impact of m-Government, countries should ensure effective pro-active measures are in place which addresses challenges that accompany the use of m-Government.

3.10 Case Studies

There are various best practices and models of m-Government across the world that illustrate how its application influences service delivery. This study draws from the valuable inputs presented by local government in India and South Africa respectively, to provide more practical demonstrations of the m-Government phenomenon. These country case studies provide different approaches and tools used to incorporate m-Governance into service delivery at local government level. Although different in character, these countries present options fit to meet the needs and aspirations of their local populace.

3.10.1 The case of South Africa

South Africa is the neighbouring country to Namibia and also shares various historical relations since the two countries were part of the same government for many decades. Being in the forefront of many endeavours in Africa, the country has also made strides in the ICT arena and thus provides for learning opportunities through key models, given the similarities in administration.

3.10.2 Overview and Background of South Africa

“South Africa is the fourth largest country in the Commonwealth with 50% of its population residing in urban areas. This percentage gives South Africa the highest rate of urbanization in Sub-Saharan Africa” (Akinsola; Herselman and Jacobs cited by Mphidi, 2003:11) According to the Commonwealth Local Government Forum (2017), South Africa’s peaceful political transition in 1994 is known as one of the most remarkable political feats of the past century. Since its transition to democracy, the country made considerable strides towards improving the well-being of its citizens. Research reviewed shows that the country’s poverty line, unemployment and inequality rates, gathered by the Commonwealth Local Government Forum (2017), have reduced over the past few years.

In order to overcome its challenges, the South African government has compiled a National Development Plan which targets two main strategic goals of eliminating poverty and reducing inequality by 2030. The report requires for a new approach from passive citizenry to an all-inclusive society where people are champions of their own development (RSA NDP, 2011). In addition, the report acknowledges that mobile technology has allowed African countries to bring affordable access to services to millions of people. “The benefits that are certain to flow from this technological revolution will be seized by countries who are alive to the rapidly

changing environment and take advantage of opportunities in order to make substantial advances in reducing poverty and inequality” (RSA NDP, 2011:1).

The rising numbers of subscribers to wireless handsets in South Africa indicate that the country is living up to these strategic goals. According to the Constitution of South Africa, Section 152, the objectives of local government are:

- To provide democratic and accountable government for local communities;
- To ensure the provision of services to communities in a sustainable way;
- To promote social and economic development;
- To promote a safe and healthy environment, and
- To encourage the involvement of communities and community organisations in the matters of local Government (GGLN, 2008).

3.10.3 The potential for m-Government in South Africa

There are various challenges posed by the adoption of e-Government in South Africa (Thakur and Singh, 2013). These include complexity in e-Government applications, digital divide, dimensions of leadership, the fragmentation of e-Government projects and stakeholder involvement. The authors found that the ubiquity of the mobile phone offers an opportunity to be leveraged. Considering the high rate of mobile phone usage in South Africa, a study done by Appolis, Alexander, Parker and Wills (2012) on the availability and the barriers of m-Government services shows that citizens are equipped with multifaceted mobile devices, which demonstrates that South Africa is definitely ready for the provision of m-Government. The results of this study were presented at the 14th annual conference on World Wide Web (www) applications in South Africa, during which the authors indicated that although m-Government is a prospect for South Africa, there are suggestions for easier adoption and insights into citizens’ preferences for accessing m-Government services (Appolis et al., 2012).

In another study, Du Preez (2009) assessed m-Government readiness within the Western Cape. The study revealed that m-Governance enhances the provision of public service delivery (Du Preez, 2009). This study was based on the fact that e-Government services did not make the expected impact on citizens in public service delivery and as such, the use of m-Government services is encouraged. According to the Statistics Agency in South Africa, more than 70% of the population have access to cell phones and these figures keep increasing. m-Government has proved to enhance the provision of public services in various ways (Du Preez, 2009).

In response to the inquiry of m-readiness above, Ogunleye, Van Belle & Fogill (2014) in their study on Mobile Government Implementation for Government Service Delivery in Developing Countries, using a South African context, found that 90 percent of the total respondents felt secure using their phones to communicate or transact with the government. This study also highlighted that more than 93% of South Africans have access to mobile phones, while 90% are owners of mobile phones. This high penetration of mobile technologies presents an opportunity to reach an exceptionally broad base of citizens in South Africa, which has raised motivation for mobile Government service implementation (Ogunleye, Van Belle & Fogill, 2014). The study particularly interviewed citizens in rural areas who do not have access to traditional Internet connectivity, but do have access to mobile phones that can be used to access the Internet (Ogunleye, Van Belle & Fogill, 2014). The study (Ogunleye, Van Belle & Fogill, 2014:4) therefore concludes that “Mobile technology has proven to be a critical channel through which the Government delivers services and information to the citizen through the following means:

- Government to citizen (G2C) service delivery;
- Citizen communication with the Government (C2G and M-democracy);
- Government’s delivery of service to the business (G2B) and
- Business interacting with the Government (B2G)”.

Mehlomakulu (2014) finds that m-Government services are a key method for reaching citizens, promoting communication, and information exchange, especially in remote areas where there is little or no fixed line, wireless Internet connection and a high acceptance of mobile phones. Mehlomakulu (2014) further states that m-Government implementation would be a great value-added feature in South Africa; however, there remains the question of whether the SA government is ready to deliver m-Services to the citizens and whether the citizens are ready to adopt and utilise m-Services delivered to them. “Although, this may seem to be a very African approach, we are convinced that the use of the mobile phone as the computing tool of choice in government service delivery will quickly be emulated in other developing countries because these devices are becoming more powerful, more ubiquitous and even more multi-functional” (Ogunleye and Van Belle, 2014:4).

3.10.4 Mobile governance at local authorities

South African municipalities have been subject to widespread service delivery protests and a special parliamentary committee was tasked to investigate and gather information about the causes of these protests. Key challenges highlighted in the report included competence and skills shortage, political interference as well as ineffective communication strategies, among others (Ntliziywana, 2010).

“South Africa has adopted a broad vision for modernizing its public service and its focus is on citizen-centred electronic service delivery, participatory governance and building an efficient, effective, and accountable government” (Maumbe, Owei and Taylor, 2007:208). Many government departments are presently providing electronic services on their websites in an attempt to improve effectiveness and accountability. Municipalities are in the same way “increasingly realising that ICTs are powerful mechanisms to enhance the provision of cost-effective services, information and knowledge” (Van der Walt et al., 2014). Regrettably, Thakur and Singh (2013) characterised many municipal websites in South Africa as informant systems; however, there are some municipalities which adopted sound practices. A leading example is the eThekweni Metro, where a call centre was created “that handles over 300 000 calls per month with a range of municipal services such as citizens reporting water and lights faults, queries for rates and other municipal services, waste removal and tree-felling” (Thakur and Singh, 2013:46). Because of its success rate, this solution has also been sold to other cities.

The municipality of Newcastle purchased electronic tablets for its Councillors to move “towards paperless Council meetings savings costs of up to 2 years of copying and printing” (Thakur and Singh, 2013:46). In addition, Newcastle’s website offers e-billing, e-services, e-faults, and e-help, all of which can also be accessed through mobile devices. Thakur and Singh therefore suggest that the efficiency and effectiveness of these initiatives should be methodologically assessed for their impact and to translate it to other environments.

The City of Cape Town has embraced the solutions offered through technology by adopting ‘smart city’ innovations in an attempt to meet “its objectives regarding socio-economic development and quality of life for all its’ citizens and visitors” (Kloppers, 2016:1), however, emphasises that “best practice smart cities understand the importance of engaging, encouraging, enabling and empowering citizen initiatives to achieve transformative social, economic and environmental benefits”. He therefore suggests that cities engage with its citizens

or customers and involve them in designing innovative solutions that are better able to fulfil their needs. The smart city initiative has been made part of the city's strategy (City of Cape Town, 2016), focusing on four areas:

- Digital Government – Driving transparency, enhancing service delivery and promoting citizen engagement through ICT.
- Digital Inclusion - closing the digital divide by promoting digital access, improving digital skills and driving digital initiatives that enhance quality of life.
- Digital Economy - creating an enabling environment for the growth of tech-enabled enterprises and maximizing its job creation potential.
- Digital infrastructure - ICT infrastructure roll-out and using digital solutions to enhance the effectiveness of critical City infrastructure.

In light of the focus areas above, Cape Town implemented the following Smart City initiatives:

Table 3: Cape Town Smart City Initiatives

Category	Initiative	Activities
Transport	My City public transport	Free Wi-Fi access to customers
Government	Smart Cape	Access to Computers and the Internet and e-Government
Public Safety	Cape Town Central City Improvement District	
Education	Digital media in schools	
Social	Visitor Information Centres	
Building	Green Building Guidelines	Integrated Waste Exchange (IWEX) and Reconstruction and Development Plan
Environment	Environmental Education Programmes	

Source: Smart City Projects (2016)

3.10.5 Benefits and Challenges of m-Government in South Africa

The city of Cape Town (2005) compiled a smart city project analysis where they identified the need for improved infrastructure, skills development and planning in order to make a concerted effort to ensure more equitable access to mobile government services. This preliminary study assisted the city in compiling its smart city strategy to transform the city and has proven to have a phenomenal impact. These initiatives have uplifted the socio-economic conditions of the city as services are available to citizens anywhere and anytime, allowing them to integrate

with administration through one-stop shops. In addition, mobile government assists the city and local government as a whole to become more customer-friendly and citizen-oriented; it has also improved decision-making by providing easy, timely access to relevant, accurate Council information (City of Cape Town, 2005).

A challenge facing mobile government may, however, lie in the literacy rates of South African citizens because, according to Matyila, Botha, Alberts and Sibiya (2014), there is a need to design mobile services and mobile content that is usable and accessible to low literate users. This measure will also close the digital divide and promote equal access to services. Trusler in Mphidi (2003: par 12) argues that “South Africa has to deal with a number of challenges before they can begin with any initiatives for bridging the digital divide. The issues are as follows:

- A high level of inequality;
- A weak ICT infrastructure, particularly in rural areas;
- A lack of ICT readiness in government, and
- More pressing demands in the public service that makes ICT development a lower priority in budget terms”.

These challenges should therefore be addressed with the benefits of cost-effectiveness, accessibility of services, improved governance and availability of services in mind.

3.11 The case of India

Unlike South Africa, India differs from Namibia in many ways. However, there are similarities in that it was also colonised for a long period and because of the inequality gap of its citizens, its government is continuously trying to reach disadvantaged communities. With the penetration allowed by mobile phones, which most of the citizens have, the government of India is working tirelessly to ensure that public services reach all its citizens through the implementation of mobile services. This section therefore provides key lessons which are applicable and effective given the Namibian context.

3.11.1 Overview and Background of India

The World Bank (2017) describes India as one of the world’s most populous nations with about 1.2 billion people. What is remarkable about India is how the country managed to transform its economy from extreme poverty into the world’s third largest economy. The World Bank article (2017) further explains that this transformation can be attributed to extensive investment

in the country's human development, with poverty eradication as well as self-reliance being major goals. Moreover, the country continues to provide its citizens with new prospects in order to conform to becoming a 21st-century nation.

In an attempt to address prevailing challenges and promote sustainable development, the government of India (2017) has invested in various initiatives to meet the increasing demand for services from citizens. Among these initiatives is the vision to transform the Indian government into a digital one through providing public services on a mobile platform. Another initiative is the smart cities program in which towns and cities are developed into vibrant modern urban centres working towards improving the quality of lives of its communities. Mobile phones can therefore act as a driver and vehicle of these initiatives in public and private sector. This means that connected devices connected to people are key in providing services aimed at enhancing the lives of citizens (Chopra, 2014).

3.11.2 India's Transition to M-governance

According to Ahmed, Quadri and Mohsin (2013), India is the second largest and one of the fastest growing markets with strong demand of ICT services. However, even after several years of the availability of Internet services in India, the number of Internet users is just one percent of the population. It therefore means that, as with most developing countries, India experienced slow Internet penetration through fixed broad band while the growth of mobile devices has reached all corners of the country.

This reality has prompted the Indian government to throw its weight behind mobile government as an integral part of its e-strategy (Jotischky and Nye, 2011). Digital empowerment is therefore a government priority with the purpose of creating an enabled society. Furthermore, Jotischky and Nye (2011:6) reveal that "India's M-government initiative is built on four pillars: 1) joined up national policy; 2) support for open technology standards and interoperability; 3) financial commitment; 4) close regulation of telecoms' operators, and 5) crucially the digitisation of public data during the first wave of e-Government". The country has therefore ensured that legislature is in place, support structures and resources are available and that the necessary funds are in place before they embarked on the m-Government initiative.

The government of India (2017) initiated the Mobile Seva project during 2011 to provide public services to citizens through mobile phones. The initiative has the following outcomes:

- Savings in costs, efforts and time for departments and citizens;
- Improved access to all departments.- No technical expertise needed;
- Greater transparency and improved interface with citizens;
- Simplified procedures/processes for Departments, and
- Increased reach and access to government services for citizens

The Mobile Seva project offers a centralised platform known as the Mobiles Service Delivery Gateway (MSDG) which enables delivery of public services over mobile devices through the following passages:

Table 4: Mobile Service Delivery in India

Delivery Mode	Function
Short Message Services (SMS)	Departments can use the SMS Portal or a programmatic interface to push SMSs to citizens. Citizens can also request for specific information through pull-based SMS services. Short codes have been allotted by Government of India for mobile governance services in the country.
Unstructured Supplementary Service Data (USSD)	This service is mainly used for checking the balance in financial accounts and mobile prepaid recharge. USSD is more interactive as compared to SMS but nothing is stored on the phone. This can be very useful for submitting requests for a service through an interactive menu and for tracking account status.
Interactive Voice Response (IVRS)	IVRS is an example of computer-telephone integration (CTI). The most common way for a phone to communicate with a computer is through the tones generated by each key on the telephone keypad. A simple IVR system only requires a computer hooked up to a phone line through a telephony board and some IVR software. The IVR software allows pre-recording of greetings and menu options that a caller can select using his telephone keypad. In the context of mobile governance, the IVRS based services, replies to automated enquiries for a large number of services with necessary information provided to the service seekers without causing undue overheads on the e-Governance infrastructure.
Location Based Services (LBS)	Location Based Services (LBS) can be very useful for the departments for customizing their services according to the location of the service seeker. There are various ways in which location of the service seeker

	can be determined. Most popular are GPS and cell tower-based locations. MSDG will connect to such systems and will provide a unified interface to departments or developers of mobile applications, which can be used by them for customizing or developing the applications.
Cell Broadcasting Services (CBS)	Cell Broadcasting Services (CBS) are particularly relevant when certain notifications or alerts have to be sent to citizens in a particular area. This can be very helpful in case of disaster or emergency situations. MSDG will connect to all the telecom operators for CBS for this service and will provide a unified interface to the departments. Departments can then use this unified interface for notifications and alerts in a particular area.
Mobile Payment Service	A Mobile Payment Gateway has been developed incorporating various channels for making electronic payments through mobile devices. These include credit/debit/cash/prepaid cards; SMS based payments through Mobile Money Identifier (MMID), mobile wallets, net banking, etc. The Mobile Payment Gateway has been made available to Government departments and agencies for integration with their applications. Citizens can use this facility to make payments for various government services through their mobile devices.
Mobile Applications (APPS)	A mobile applications store (M-Appstore) has been created to facilitate development and deployment of suitable applications for delivery of public services through mobile devices. The M-Appstore has been integrated with the MSDG and uses the MSDG infrastructure for deployment of these applications. The store is based upon service-oriented architecture and cloud-based technologies using open standards as far as practicable.

Source: Government of India (2017)

As indicated in the table above, the provision of a MSDG ensures that various services can be availed to the public on different types of mobile phones. All citizens are included and the digital divide is reduced. The example taken by the Indian government have made a remarkable impact on the m-Government approach and proven the various benefits offered by m-Government to improve public service delivery.

3.11.3 Creating smart cities in India

India has about 68 cities in its various states; Mumbai and Delhi are among the five largest cities of the world (Government of India, 2017). These cities received funding from central

government to develop initiatives to improve infrastructure for service delivery. Several smart solutions were selected to strengthen the city's governance to produce better results for people. India is setting in motion a new cycle of growth and urban development to create opportunities and improve people's lives.

The Ministry of Housing and Urban affairs in the Indian government has encouraged cities to invest in the latest technology to improve the living conditions of its citizens through "promoting innovative smart solutions under the smart cities mission (SCM)" (Government of India, 2017: 2). The article (2017: 2) further explains that these "Smart Solutions include ICT interventions for e-governance, online government services, and for improving the efficiency of core services at a relatively lower cost" with the aim of enhancing citizen services and quality of life. Moreover, the SCM came up with the following objectives:

- To provide a fillip to the development of new and innovative Smart Solutions that directly impact the needs of cities;
- To ensure availability of funding for practice research of direct relevance to the outcomes desired under the Missions;
- To make available a large body of pilot-tested and proven Smart Solutions that can be adopted by cities as per their specific needs, and
- To promote a culture of innovation within the urban sector.

Though this initiative, the government is inviting cities to submit proposals for government funding which covers solutions to challenges experienced by city dwellers according to a set of guidelines. An important requirement of such a proposal is that it should be compiled by way of participation of the residents to make it all inclusive. The figure below provides possible smart solutions which a city can identify:

Figure 11: Smart Solutions in India

Source: Government of India (online)

According to Figure 14, smart solutions for cities can include provision of public services on electronic platforms, ensuring that waste are effectively disposed in sustainable ways, managing the use of water through installing smart meters that are able to identify and report leakages and monitor the quality of the water. In addition, a smart city is expected to promote energy efficient buildings and the use of renewable sources of energy, ensure the effective and efficient implementation of a transport strategy and also provide ongoing skills training to incapacitate users and designers of smart technology so that they are on par with the latest developments.

3.11.4 Benefits of m-Governance for local governments in India

According to (Kailasam, n.d.), the main benefit of m-Governance for the Indian government is the potential to create an integrated digital platform where services are delivered at the convenience and immediacy of citizens. This mode of service delivery reduces time for value added service-related activities with fewer data errors and duplication efforts.

Local governments in India fall under government structures and are also compelled to move towards mobile service delivery. This will ensure that their services are “accessible to citizens irrespective of location, anytime, anywhere. This would bring potentially biggest benefit to citizens and local government” (Sapkhale and Kulkami-Bhende, 2015:114). The authors also suggest that local governments make use of Android/ iOS/ windows based mobile applications, mobile technologies such as SMS and voice-based features, video calling, GPS and location services.

In a nutshell, m-Governance presents the following benefits and challenges, as identified by Sapkhale and Kulkami-Bhende (2015:121), in Table 5:

Table 5: Benefits and Challenges of m-Government

<u>Benefits:</u>	<u>Challenges:</u>
Lower costs	Exclusion of poorer groups in society
Real-time monitoring	Security of public service applications
Effective adaptability	Data overload because of permanent connections
Greater accessibility	Localisation

Source: (Sapkhale and Kulkami-Bhende, 2015)

India has a big challenge with poverty and although m-Government may be able to reach a large part of the population the exclusion of poorer groups in their society is unavoidable.

Despite this sad reality, it is however also correct that m greater accessibility is offered to more citizens through the initiative of m-Government. Greater accessibility also means that the Indian government will have to ensure that their infrastructure is adapted to accommodate more connectivity otherwise a data overload may be the order of the day. The challenge of security is pertinent and needs effective intervention for the protection of government and its citizens.

The idea of digitizing India is seen as an opportunity for India to create an enabled society. The digital empowerment amplifies force for changing societal problems such as education and poverty amongst others. India’s framework for m-Government could thus be useful for countries such as Namibia, where mobile access has exceeded population figures because it

sheds light on the practicality of investing in m-Government, especially considering the poor implementation figures presented by e-Government.

3.12 Summary

The era of ICT is believed to transform old methods of service delivery in order to increase efficiency, effectiveness, accountability and enhance transparency in the public sector. As a result, service delivery became available through Internet platforms giving citizens the opportunity to interact more with government. This mode of service delivery gave rise to the notion of e-Government which was used as a tool to achieve better government practice. e-Government platforms afford more interaction between government departments; between government and businesses; between government and citizens, and between government and its employees. The impact and successful transformation, particularly in the developed world, inspired developing countries to also support e-Government and invest in infrastructure for the growth of their ICT sectors. Unfortunately for developing countries, the outcome was not the same because barriers such as accessibility resulted in the low penetration of e-Government services.

With the deployment of mobile devices using wireless networks, more people around the world became connected. Subsequently, mobile networks were extended to rural areas creating more convenience in using this device anywhere and anytime. It thus became more apparent that there was a need to move e-Government services to mobile platforms, today known as m-Government. Mobile government uses wireless technologies such as tablets, smartphones to deliver government services and information. Distinctly, it is not limited by the physical location; through wireless infrastructures, it can be operational even in the remotest areas of a country. With mobile tools being widely accessible, it has become the most preferred means of communication by the majority of citizens worldwide. Mobile government offers accelerated interaction between government and citizens, the opportunity to improve socio-economic conditions as well as accountability and transparency in governance. The platforms of interaction used in e-Government can now be offered through mobile platforms.

Developing countries thus use mobile devices at exponential rates, urging more governments to change to m-Government. At the same time, it is essential that governments ensure that proactive measures are in place to address challenges that may accompany the use of m-Government. Best practices provided through the case studies of South Africa and India

indicate that there is a need to design mobile services and mobile content that is usable and accessible to low literate users. This measure will also close the digital divide and promote equal access to services. South African cities have tapped into m-Government services yet many are still lagging behind. In India, the government is the main driver of m-Government services and thus encourages cities to follow suit through offering guidelines and financial assistance to those who develop innovative means of delivering public services through mobile platforms.

India and South Africa may differ from Namibia in various practical ways; however, the slow penetration of e-Governance and the impact of the transitions made to m-Government platforms are significant developments from which Namibia may learn. It will therefore be beneficial for Namibia if more local authorities learn from the initiatives taken by these countries in order to uplift the socio-economic situation of towns or cities and in so doing, enrich the country's national development efforts.

With a comprehensive overview of the literature pertaining to local government and mobile government, the focus of this research will move to a more practical application in the case study of Swakopmund as a local authority in Namibia.

CHAPTER FOUR: THE CASE OF SWAKOPMUND MUNICIPALITY

4.1 Introduction

This chapter articulates a comprehensive narrative of service delivery provided by the Municipality of Swakopmund, which is one of Namibia's leading municipalities. The objective is to examine the current service delivery methods and present a practical implementation of m-Government within the Municipality of Swakopmund and identify opportunities for improved service delivery.

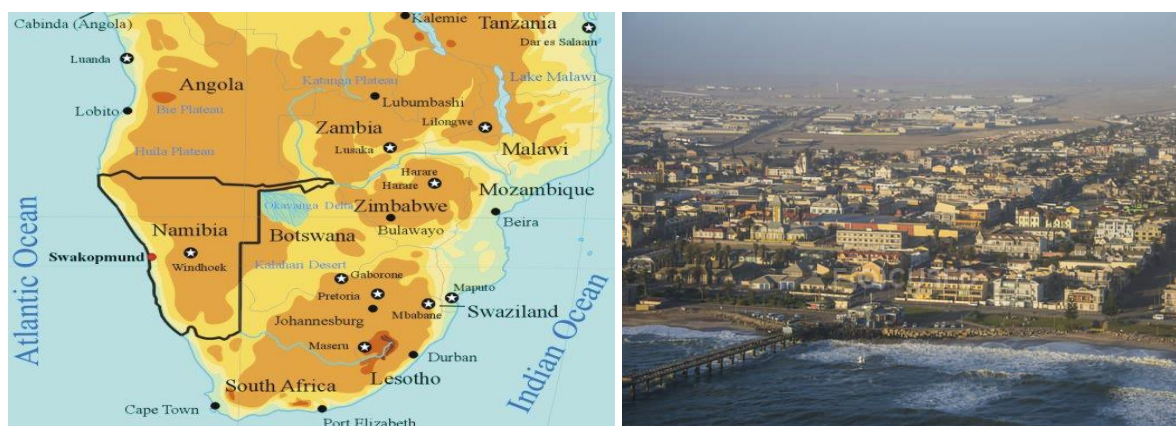
The Swakopmund Municipality Namibia falls under the local government sphere of the Namibian governance system and is regarded as a Part I municipality. It therefore means that these municipal councils are the most autonomous and can also be regarded as decentralised agencies of central government.

The Municipality of Swakopmund is faced with increasing demands on service delivery as it is rapidly expanding, an indication that old methods of service delivery have become ineffective and inefficient. A transformation in service delivery which is responsive, accountable and reliable, is therefore inevitable in their quest for good governance.

4.2 Background of Swakopmund Municipality

Swakopmund is the capital of the Erongo administrative district, situated on the western coast of Namibia with its shoreline on the Atlantic Ocean. The figure below gives a snapshot of the coastline and central business district of Swakopmund.

Figure 12: Swakopmund (online images)



Source: <https://www.google.com/search>

The town was found in 1892 by German settlers and is known for its historic German architecture. It is also one of the country's leading tourist attractions and holiday destinations (Swakopmund profile, n.d.). The figure below displays some of the German architecture found in the main street of Swakopmund. These historic buildings which are now used as government offices and business centres, has preserved the town's image over the years, giving it that unique appearance that captures the attention of many tourists.

Figure 13: German Architecture of Swakopmund



Source: <https://www.google.com/search>

Swakopmund received municipal status in 1909 and has ever since tried to develop effective management and effective service delivery mechanisms. This can be confirmed by the various national awards achieved through the years. The Municipality received, amongst others, recognition for its contribution to the economic growth and development of the region, levels of management expertise, implementation of corporate governance and levels of innovation. Today, after more than 100 years, the town has become a success story for effective town planning and management and therefore takes pride in being a leading example of excellence in performance. In his speech at the opening of Council during 2015, the previous Mayor of Swakopmund told members that *“Swakopmund Municipality will always be evaluated by our ability to meet the growing needs of our residents through quality services, and accountable governance and by how effectively we facilitate the growth of our town”*.

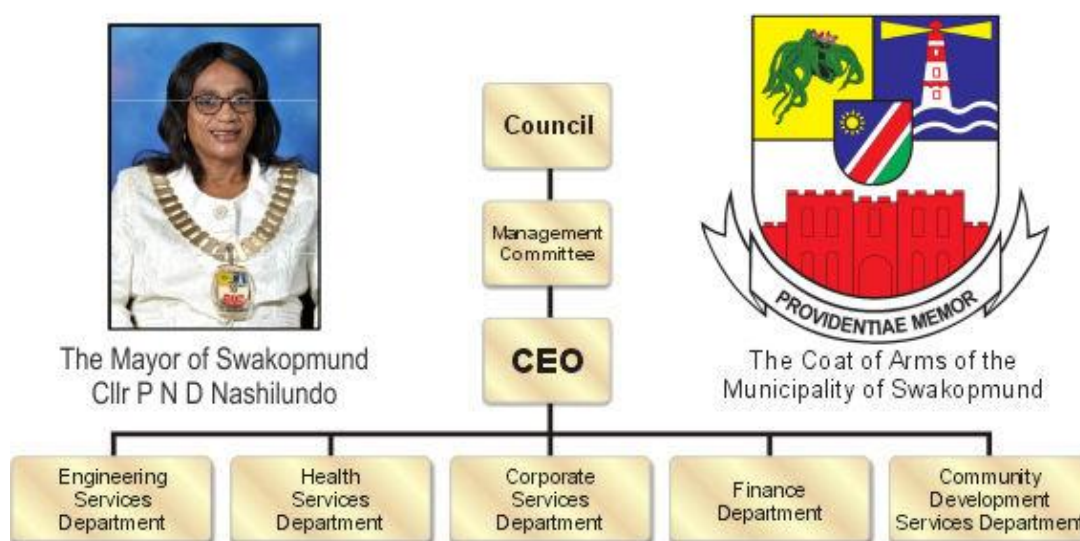
The economic and social development of the town can be largely attributed to the mining activities taking place in the area. Situated about 70km from Swakopmund, is the Rossing Uranium Limited uranium mine, the world's largest opencast mine as well as a major contributor to the economy of Swakopmund (Swakopmund Profile, n.d.). With the discovery of more uranium in the area, increased mining activities led to the development of additional mines around the town which led to the high rates of in-migration. As a result, the last national

census conducted during 2011, indicated that the town's growth rate reached a high 5.3% and was at that time estimated to increase to a population of 44 908 in 2014. (Namibia Statistics Agency, 2014). It therefore means that the town's administration is compelled to adjust its service delivery efforts in order to meet the high demand caused by this influx. With a clearer understanding of the town's background, the structure of the Municipality is discussed in the following section.

4.3 Institutional Arrangements

The Municipality of Swakopmund employs 595 permanent staff members within 5 departments. Each department is directed by a General Manager as well as Managers who report to the Chief Executive Officer, the administrative head of the institution. The Mayor is the political head of the Municipality and is part of a Council comprising of ten members from five different political parties. The structure of the Municipality of Swakopmund is depicted in the diagram below:

Figure 14: Swakopmund Municipality Structure



Source: <http://www.swkmun.com.na/>

Members of Council are selected according to the votes attained by that political party and for Swakopmund, the majority of votes are usually attained by the country's ruling party which currently occupies six seats in Council, while the remaining seats are filled by four other political parties respectively (Van der Walt et al., 2014). The Council meets on a monthly basis; however, special meetings may be arranged in case of urgent matters.

Before Council assembles, the administrative head and his departmental heads (General Managers and Managers) meet in what is called the Planning Forum twice a month to thoroughly debate on matters before it is forwarded to the agenda of the Management Committee. The main discussion points of the Management Committee normally flow from the Planning Forum or any other Portfolio Committees elected to deal with particular matters i.e. Housing, Informal Settlement, Environment, Health, Safety and Security etc. The Management Committee is a platform where the political and administrative leadership debate on developmental issues concerning the town. The approved agenda for these meetings is then forwarded to Council where the public are allowed to attend meetings and listen to matters discussed.

Effective communication with community members therefore remains key for Councillors in exercising their roles and remaining accountable to the community. The only means of communication used by Council to engage with the public, are public meetings which are held twice a year in various locations of the town. These meetings allow for public input regarding policies, budgeting as well as development plans. The opinion of the public is further obtained through social media platforms such as Facebook and regular radio talk shows.

Local government has a key role in developing cities and towns and therefore needs to be open to new forms of governing in this modern society. Active participation by all actors is key to uplifting and improving the social fabric of communities (Van der Walt et al., 2014). The Swakopmund Municipality continues to be a trend-setter in Namibia as far as local governance and developmental issues are concerned. It is therefore befitting that this Council considers the various uses of ICTs to enhance local democracy.

4.4 Socio-Economic context

The Namibia Census Report of 2011 indicates that Swakopmund has an exponential population growth rate of 87%, which is mainly a result of a high rate of in-migration. This growth rate can also be attributed to an increase in mining activities around the town since 2011 through which jobs were created for many unemployed citizens.

The mining sector constitutes the backbone of the country's economy and thus the main economic contributor to the town's economy. According to the Namibia Statistics Agency (2014), the majority of households in Swakopmund are economically active residents who form part of the working class. The population of Swakopmund is regarded as 99% literate and has

a median age of 27 years which means that half of the population is younger than 26 years of age (Namibia Statistics Agency. 2014).

A socio-economic study conducted by WinPlan Town and Regional Planning Consultants (Esterhuizen, 2016), found that Swakopmund grows at a rate of 5.4% per annum which projects that the town will have a population increase from 44 729 people in 2011 to approximately 168 000 residents in 2036. The growth of the town's population therefore places considerable pressure on the Municipality to provide adequate services to its residents and thus calls for adequate planning in the development needs confronting the residents of the town.

4.5 Strategic focus areas

The performance of the Municipality of Swakopmund is determined by 5-year strategic plans that enable the institution to reposition itself and redirect its focus in order to meet the fluctuating developmental requirements of the community and contribute to nation building. These strategic focus areas are identified through collaborative engagement with communities as well as key role players and stakeholders through a participatory and consultative process which ensures that the needs of communities are adequately met.

Following the inputs from the public and considering all contributing factors, the Municipality's strategic action plan for 2016/2017 to 2020/2021 focuses on the following priorities divided into long-term and short-term plans:

Five Year Plan (Short-term):

- Provision and Development of land: create and plan 500 erven per annum, educational institutions, sports facilities, and cemeteries, markets for local enterprise, clinic facilities and recreational areas.
- Constructing a new water reservoir
- Road Surfacing
- Arrangement of Satellite Offices – Pay points
- Streets – resurfacing and widening
- Constructing a new Public Hall
- Constructing a new Fire Station
- Constructing Public Toilets
- Regulate Shebeen Hubs
- Creating Water points at Informal areas

- Improving Safety and Security
- Create a sustainable city

Ten Year Plan (Long-term):

- Provision for land – focusing on affordable serviced erven at affordable prices
- Services to the Vulnerable
- Provision for Public Transport
- Alternative energy

Source: (Swakopmund Municipality, 2015)

The strategic focus areas identified above provides a holistic approach to cover the various needs and challenges experienced by residents of Swakopmund. Land delivery has become a national crisis in Namibia and is thus not only a top priority of Swakopmund but also for the country, and therefore features in various national developmental documents as well. With the vast growth in population and the mushrooming of informal structures in the town, the Municipality is working in collaboration with government to fast track the allocation of housing and residential land especially to first time home owners. As the development of housing and land is progressed, so too does the need for much needed public services such as health, education, transport and recreation therefore provision for these amenities are also executed alongside the delivery of housing.

The construction of a water reservoir, public hall, fire station as well as road surfacing and resurfacing of streets cannot be evaded and thus comes with the expansion of residential areas within the town. Although the ultimate aim of the town would be to gain control over informal settlement growth with the aim to eliminate this form of housing, a supply of properly planned and affordable land is required (Weber & Mendelsohn, 2017). In the meantime, the Municipality has to ensure that essential services such as water and sanitation are availed to residents living in the informal areas.

The Swakopmund municipality has a longstanding relationship with twinning town Malmö city in Sweden and has over the past years joined efforts towards creating a more sustainable town (Swakopmund Municipality, 2016). It is, however, evident in the planning efforts of the town that sustainable development has not been regarded as the cornerstone of development.

The objectives on social upliftment and sustainability speak directly to the issue of a water and electricity support mechanism for low-income households who struggle to keep up with service accounts such as water and electricity. Targeted actions to support low-income such as alternative renewable energy sources as well as grey water systems does not currently form part of Swakopmund's plans for the next 5-10 years. In neglecting to appreciate the centrality of sustainability, the Municipality may have underestimated its potential, especially in contributing to social upliftment and addressing severe poverty.

The roadmap for the next five years constitutes the Municipality's framework to guide operational efforts in various departments. Ultimately the Municipality's vision is to "*provide and maintain safe, sufficient and affordable services to residents and promote future development to the benefit of our community*" through the implementation to their strategic roadmap (Swakopmund Municipality, 2016). The focus areas neglect to describe the ability of the town to govern itself effectively through the equitable distribution of resources and transparent service delivery however efforts to include the participation of communities in their own development indicates that the plan was anchored in the concept of partnership to identify strategic focus areas to achieve desired outcomes. The annual budget of Council is subsequently aligned with the strategic plan in order to ensure efficient and effective service delivery while reflecting on demands of improved service delivery from a rapidly emergent society. In his budget speech, the Chairperson of the Management Committee at the Municipality of Swakopmund, Councillor Errkie Shitana mentioned that the provision of quality services and maintaining such quality of services at an acceptable standard to the residents of Swakopmund has become a challenging task as it has to be supported by sufficient financial resources (Shitana, 2018).

It has therefore become imperative for Council to tap into the planning and implementing smart city solutions as highlighted in the previous chapter through the case studies of South Africa and India. As the municipality is looking for more results in terms of quality and quantity through the implementation of its strategic plan, lessons from abroad has proved how digital empowerment can improve social upliftment and create an enabled society.

The table below indicates the progress made by the Municipality with regard to the strategic focus areas highlighted above:

Table 6: Progress on Strategic Goals

<u>STRATEGIC AREA</u>	<u>PROGRESS MADE</u>
Provision and development of Land	<ul style="list-style-type: none"> • 3034 erven availed to the Mass Housing initiative available for middle, low income residents. • Upgrading of our informal settlement availing 866 mainly earmarked for the ultra-low income residents within the informal settlement. • 727 erven serviced and available for middle and low income residents • # of erven sold on auction for higher income groups
Constructing a new water reservoir	<ul style="list-style-type: none"> • Water reservoir constructed and operational
Road Surfacing	<ul style="list-style-type: none"> • Roads across town are interlocked continuously
Arrangement of Satellite Offices where pay points	<ul style="list-style-type: none"> • In progress
Streets – resurfacing and widening	<ul style="list-style-type: none"> • Continuous project taking place annually
Constructing a new Public Hall	<ul style="list-style-type: none"> • Hall constructed with Multi-Purpose Centre which includes a community library, Gym, Restaurant as well as stalls for SME's. • Erf reserved for the construction of another Community Hall
Constructing a new Fire Station	<ul style="list-style-type: none"> • In progress
Constructing Public Toilets	<ul style="list-style-type: none"> • In progress
Regulate Shebeen Hubs	<ul style="list-style-type: none"> • No more Shebeens permitted in newly established residential areas
Creating Water points at Informal areas	<ul style="list-style-type: none"> • Water points are created however pre-paid water meters are still overused causing regular breakdowns
Improving Safety and Security	<ul style="list-style-type: none"> • Police Public Relations Committee Established
Create a sustainable city	<ul style="list-style-type: none"> • Recycling sorting plant constructed and operational • Regulations established for the use of plastic bags • In progress to compile a Sustainable Development Plan
Services to the vulnerable	<ul style="list-style-type: none"> • Gardening projects at schools initiated to support the vulnerable and promote backyard gardening
Provision of Public Transport	<ul style="list-style-type: none"> • In progress
Alternative Energy	<ul style="list-style-type: none"> • In progress

Source: Adapted from the Swakopmund Municipality (2017)

It is evident from the table above, that Council is striving to ensure that all strategic areas are executed and that past failures and challenges are addressed. The town's progress report for 2015 specified that Swakopmund achieved over and above its goals when it sold 5606 erven during 2015 on the open market enabling Council to boost its financial position (Swakopmund Municipality, 2015). Unfortunately, many residents in the low-income segment were unable to secure affordable land/housing, leaving Council with a huge backlog in providing housing solutions for these needy residents. With the introduction of the Mass Housing Development Programme (MHDP) by government, many low-income residents are however provided with housing options while the Mass Urban Land Servicing Programme (MULSP) also ensures that all ultra-low segments of the community are provided with the basic services to incrementally improve their homes.

Strategic planning is a mandatory process in all public spheres of Namibia as the country strives towards *“becoming a prosperous and industrialised Namibia developed by her human resources, enjoying peace, harmony and political stability.”* as per vision 2030 (15).

4.6 Current Service Delivery Methods used by officials

The Municipality of Swakopmund has a single portal which offers basic information and various applications forms. It is, however, required that online forms and applications be submitted to the relevant department after completion. There is no provision for online applications at this stage. This trend is observed on all municipal websites in Namibia and according to Thakur and Singh (2013), can be characterised as informant systems. The fact that there is a static website offers both an opportunity and a platform to create interactive services between the Municipality and its citizens (Thakur and Singh, 2013).

Within the institution, provision is made for computers with Internet access in all offices, while those employees without offices have the right to use the computer lab during their free time. Given the fact that these officials are required to spend working hours in their field this facility is unfortunately underutilised. Employees however formed a chat group on WhatsApp which is used for sharing of important information and this platform is the preferred means of communication for employees as it is more effective especially for employees with no access to the computer.

The role ICT play for the Municipality of Swakopmund at this stage is to enhance interaction and the exchange of information among employees and other government and authorities. The majority of the information available on the official website of the Municipality is static and

does not allow for any interaction or transactions between the Municipality and citizens or businesses. The Municipality has, however, established an official page on social media where a platform was created to engage with the public on services provided by the Municipality.

For communication with the public officials however uses the municipal notice board, website, newspaper, radio or put up public notices around town. Telecom have introduced the use of a bulk sms system which are currently used by the Community Development and Property departments for important notifications for clients. Although this is merely a one-way communication method it has been more effective in reaching the target group.

Councillors and management however enjoy the privilege of tablets and iPhones in order to be more accessible to the public and also to have 24hour access to internet facilities where important information are provided.

4.7 Alternative methods of service delivery options

“Simple mobile telephones are now commonplace across the world and mobile networks are widespread” (Melhem, 2012:93). Similarly, employees at the Swakopmund Municipality are well informed about the latest trends in technology and as such many employees already possess various forms of smartphones. Those employees whose work require extensive fieldwork, are provided with mobile devices to ensure that their services are accessible to citizens wherever they are, while all the Councillors, General managers and managers enjoys the benefits of the latest iPhones as well as tablet computers on which they receive agendas and minutes of various meetings.

The strategic focus areas can therefore become more contemporary through the following initiatives:

Table 7: Alternative methods of service delivery

<u>STRATEGIC AREA</u>	<u>ALTERNATIVE METHODS OF SERVICE DELIVERY</u>
Provision and development of Land	<ul style="list-style-type: none"> • Providing online applications for housing • Provide mobile enquiries on progress of housing applications through SMS and USSD services
Constructing a new water reservoir	<ul style="list-style-type: none"> • Introduction of smart pre-paid water meters for low income households which are linked to mobile devices

Arrangement of Satellite Offices for pay points	<ul style="list-style-type: none"> • Aquifer management and preservation to reduce water consumption, re-use (waste) water and use ‘renewable’ water. • Using USSD services for checking the balance in financial accounts and for tracking account status. • Online payments and enquiries • Introducing a Mobile Payment Gateway to incorporate various channels for making electronic payments through mobile devices
Improving Safety and Security	<ul style="list-style-type: none"> • Cell Broadcasting Services (CBS) to send notifications or alerts to citizens in case of disaster or emergency situations • Introducing public relations information system through CCTV cameras to assist the police and traffic to identify and prevent criminal activities
Create a sustainable city	<ul style="list-style-type: none"> • Creating Mobile applications for delivery of public services through mobile devices.
Services to the vulnerable	<ul style="list-style-type: none"> • Free Digital literacy Programmes with the assistance of MICT
Provision of Public Transport	<ul style="list-style-type: none"> • Introducing a sustainable urban transport plan as the population continues to increase. • Information systems with information on public transport terminals, fees and routes.
Alternative Energy	<ul style="list-style-type: none"> • Promoting renewable energy options i.e. solar energy, biogas, wind energy to households

Source: Adapted from the Swakopmund Municipality (2017)

As seen displayed in Table 6 above, the Swakopmund Municipality has the potential to introduce various services aimed towards digitally transforming some of their strategic focus areas. As defined in the NDP 5, ICT is a crucial enabler for socio-economic development which requires the widespread availability, affordability and accessibility of a full range of information, communications and technology networks and services (Republic of Namibia, 2017). Swakopmund is one of Namibia’s main urban centres which is growing at an overwhelming rate, and the need for the Municipality to provide an information-rich environment where residents can be connected to resource flows, is evident. As many of the residents are connected to mobile devices, there is a need to invest in technological advancements and best practices presented by mobile devices. The writer therefore supports

the suggestion made by Borucki, Arat, & Kushchu, (2005), that it is paramount to start by engaging the public with the view to identify their immediate needs and ensuring that the utilization of m-Government services will address them through efficient and effective service offering. To further evaluate the potential of the Municipality of Swakopmund, the next section provides an analysis of the strengths, weaknesses, opportunities and threats which should be considered.

4.8 A SWOT analysis for implementation of m-Government Services

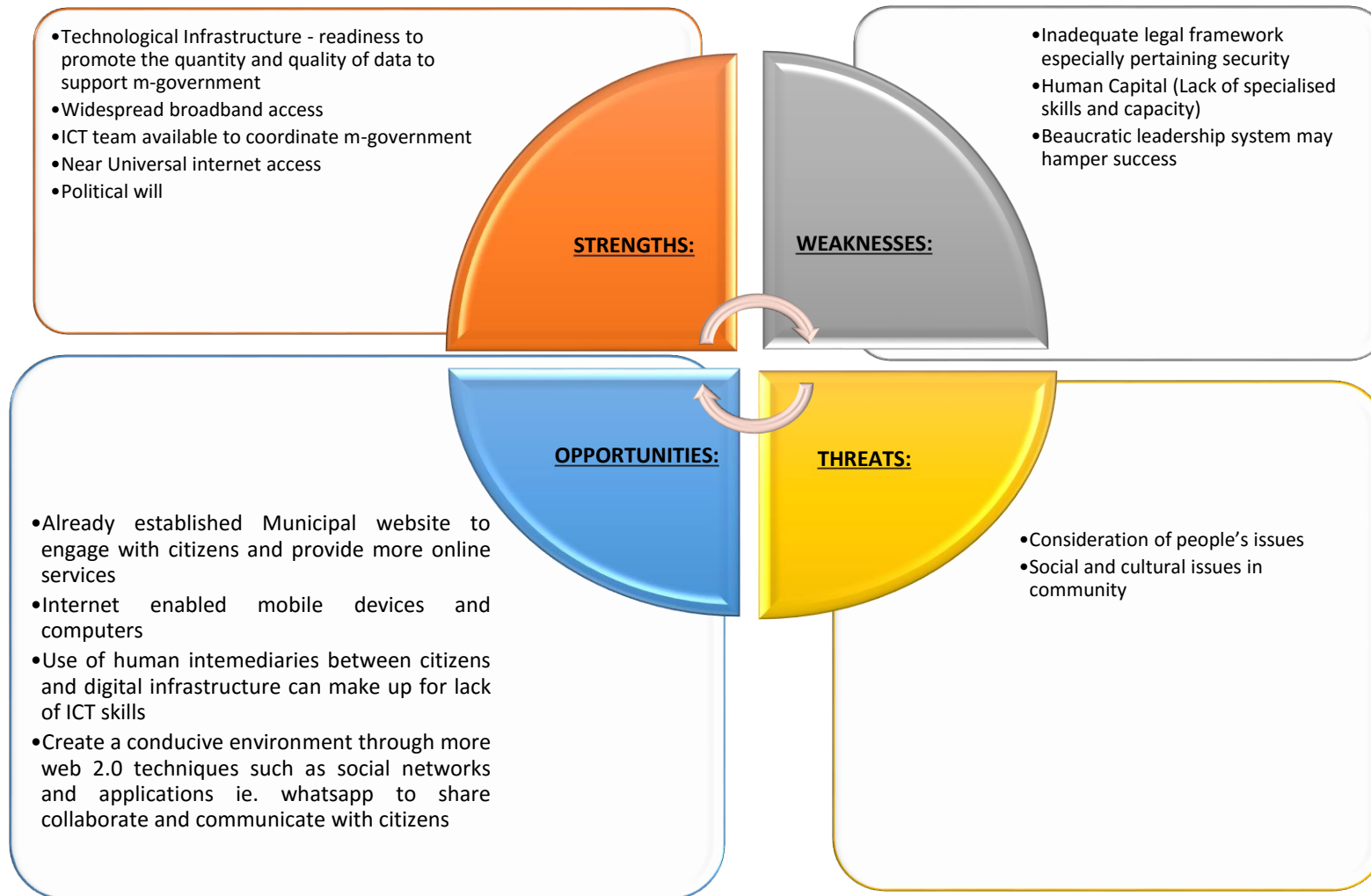
Hafkin (2009) provided an overview and progress on e-Government in Africa highlighting the winners of the 2007 Technology in Government Awards (TIGA). These awards were based on a list of prerequisites against which countries were evaluated with the aim of recognising innovation, excellence, and leadership in Africa's public sector. The list of prerequisites included the following (Hafkin, 2009:7):

- Technology Infrastructure;
- Near universal Internet access;
- Human Capital (Designers and users);
- Legal Framework (enabling environment);
- Political Will;
- Integration and Redesign of government organisational processes and
- Consideration of people's issues

Although this report was fundamentally used to measure the progress of e-Government, what emerged from the findings is that the technology infrastructure from the perspective of m-Government is the adoption of cell phones in Africa which have exceeded the gap in broadband access compared to developing countries. This is another indication that there is a need for African countries such as Namibia to shift from e- to m-Government. The explosion of mobile services continues to extend beyond the desktop and it becomes increasingly apparent that such mobile services needs a coherent measurement framework (Stiakakis and Georgiadis, 2012).

Since m-Government essentially complements e-Government, m-Government can also be measured based on the models, methods, and frameworks developed for e-Government. The list of prerequisites provided by Hafkin (2009) was used to analyse the strengths, weaknesses, opportunities and threats pertaining the use of mobile government at the Municipality of Swakopmund in figure 15 below.

Figure 15: SWOT Analysis of Swakopmund Municipality



It is evident that the strengths and opportunities reflected by the Municipality of Swakopmund outweigh the weaknesses and threats faced by the institution. According to the literature, this gives the municipality considerable potential to integrate mobile services into the daily lives of its citizens. Today's increase in access to digital technologies brings more choice and greater convenience. Through inclusion, efficiency and innovation, access provides opportunities that were previously out of reach to the poor and disadvantaged (The World Bank Group, 2016).

As governments around the world are busy formulating very aggressive targets to move towards m-Government, it is time for local governments such as the Municipality of Swakopmund to work interactively with the public to address immediate needs in the fastest and most effective way possible. The researcher therefore shares the opinions of Borucki, Arat and Kushchu (2005) that the provision of m-Government services will undoubtedly contribute to faster, higher quality and more effective service delivery to the public.

In addition, the e-Government strategic action plan of Namibia (2014-2018) identifies some principle gaps, which include the following:

- “Technology is not taken advantage of appropriately, which causes inefficiency in service delivery by the GRN” (Republic of Namibia, 2014:10).
- “e-Government services are not affordable to those in a compromised economic position and e-Government services are not available to those in geographically remote locations” (Republic of Namibia, 2014:10).

The gaps identified above also presents an opportunity for the implementation of mobile government considering the access of citizens/residents to mobile phones and the affordability and convenience of having a mobile phone in relation to a desktop computer.

4.9 Challenges faced by Swakopmund Municipality

Despite significant strides, the Municipality of Swakopmund also faces several challenges mainly brought about by rapid urban growth. Escaping rural poverty in Namibia often results in getting locked into urban poverty and residing in dilapidated housing conditions on the outskirts of the town or city. The following section discusses the key challenges facing the Municipality.

4.9.1 Provision of Land

The provision of land is not only a challenge for the Swakopmund Municipality but a national challenge. Strategies to address this challenge therefore remain on top of the priority list for Council in all the years. Although considerable improvement was made during the past years, the rapid growth of the town increases the demand for land, housing and municipal services.

An affordability survey conducted by WinPlan Town and Regional Planning Consultants during 2011 indicated that there is a huge backlog in housing delivery for the low-income segment of our community. Currently the waiting list comprises approximately 12000 applicants, of whom some have been waiting for as long as 8 years for assistance. The survey also indicated that the growth of the informal increased tremendously to an extent that Council could not control the illegal occupation of land around the area any more. According to Weber and Mendelsohn (2017), the formal land supply system and market does not serve the needs of low-income Namibians forcing them to acquire land informally and become participants in the informal market. Although Council is in the process to upgrade the informal settlement, no amicable housing solutions have been offered to residents thus far and their future remains insecure. As the frustration of people living in poor conditions builds up, angry residents take to the streets in protest against the municipality, wreaking havoc amongst citizens.

Mobile government however presents a transformational capacity which enables increased citizen participation. It provides a platform where citizens can be informed about plans, projects and progress relating to the provision of land and housing on a regular basis. Keeping track of progress and ensuring the process of land provision promotes transparency and may be mutually beneficial to citizens as well as the municipality.

4.9.2 Planning

According to Van der Waldt et al. (2014), the planning process should be a participatory one enabling and empowering citizens to take an active part in the process. The strategic planning process of the Swakopmund Municipality starts with consultations of all stakeholders in and around town after which Council and management concludes the process and decides on the final plan in isolation. “The strategic focus areas identified by the Municipality are an indication that there is a lack of consideration for the impact of rapid urban migration which clearly has a big effect on the demands for adequate services” (Van der Waldt et al., 2014:103). Planning efforts seem to take a more reactive than proactive approach as urbanisation accelerates, which poses a big challenge to the development of the town.

4.9.3 Participation

Steven Friedman (2009: par 8) stated that “people are demanding public service and not service delivery”. Where public service involves listening and doing what majority citizens wants, service delivery is anti-democratic since it provides technical solutions which are forced on people. A very important factor that are taken for granted in municipal management is the “consultation and representation of all residents, communities and stakeholders within a municipality as well as representatives from other spheres of government, sector specialists and other resource persons” (Rauch in Van der Walddt et al., 2014:108). The municipality of Swakopmund works in isolation to government offices within the town and each implements their activities in isolation.

4.9.4 Good Governance

“Governance is ‘good’ when it allocates and manages resources to respond to collective problems, in other words, when a State efficiently provides public goods of necessary quality to its citizens” (United Nations, 2007:10). This can only be done through what is known as ‘Local co-operative governance’, which is the movement away from the concept of government to radically improve municipal public service delivery. Good Governance therefore requires effective leadership which are able to direct, manage and monitor its functions and is accountable to its communities by maintaining a balance between economic and social objectives as well as individual and communal objectives to align the interests of individuals, corporations and society as closely as possible (Van der Walddt et al., 2014).

In Namibia, local authority Councillors serves a term of 5 years but they are not held accountable at the end of this period to the public for implementation of important goals such as ensuring better living conditions for the communities they serve. This challenge makes room for rent seeking behaviour amongst councillors which clouds the views of Councillors in delivering basic services to the community.

Good governance, responsive institutions and engaged citizenry are the bedrock of democracy and sustainable development. Namibia’s economic, social and environmental future rests on its ability to put people at the centre of decision making. This is why working together in prosperity is the theme for NDP 5 (Republic of Namibia NDP5, 2017).

4.9.5 Effective communication

Proper communication with customers, but also within Council, the senior managerial level through to the lowest ranked employee. The OECD (2011) advises that Municipalities study

the impact of mobile penetration on communities and that they facilitate the development of appropriate tools and content to invest in. In the Erongo Region, (Namibia Statistics Agency, 2014), national statistics found that 75% of its urban population have access to mobile phones, while a small 14% has access to telephones. In addition, a recent registration exercise conducted by the Municipality of Swakopmund during November 2017, shows that close to 100% of applicants could provide mobile numbers in their applications, while a very low minority had fixed telephone lines. This increasing numbers of mobile users against telephone users is therefore regarded as an opportunity for municipality to shift its working models to fit this innovative world of digital technology.

Swakopmund Municipality has an independent ICT department responsible for providing the latest infrastructure of ICT, the maintenance of these systems and installations of appropriate and safe networks to enhance efficiency. The ICT department ensures that the officials are connected to the latest technologies which enhance service delivery with the approval of Council. The department is outsourced and employees in the ICT department are not working for Council but employed by Business Connection (BCX), the company Council has contracted to manage the operation of information technologies within Council. The ICT department works in collaboration with a computer committee, with a platform which is used to discuss, debate and recommend efficient technologies, policies and practices which are essential for service delivery as well as cost effective. All these services are provided to staff for business purposes as such the Municipality maintains the right to examine any workstation or systems and inspect and review all data and traffic passing through and residing on those systems (Lindner, 2018).

The municipality ensures that officials who have to engage with the public on a regular basis have access to bulk sms services which assists in delivering important messages. Furthermore, the institution provides Internet access to its employees and also mobile phones to those employees whose duties require more fieldwork than office work. It is thus evident that the Municipality already makes substantial use of ICTs and there is considerable potential to assist in the process of integration of ICTs into the daily lives of residents (Jensen, 2002).

4.10 Summary

This chapter provided a holistic view of the Municipality of Swakopmund which is regarded as a leading municipality in Namibia. Although the Municipality has gained recognition over the years for its effective management and service delivery mechanisms, these attributes have

unfortunately not freed the town from service delivery protests by aggrieved residents in the past. As the town continues to expand at a rapid rate, demands on services increase while institutional capacity lags behind. The town, like many other Namibian towns, is confronted with various service delivery challenges although it has continuously endeavoured towards achieving over and above its target areas. It has all the necessary technological advances in place as it strives towards using resources sustainably. These advances, which include access to mobile technologies as well as Wi-Fi, are already available, but not effectively utilised to the benefit of the public as well as that of Council. With the necessary evidence, it is easier to convince the institution to invest in mobile government which presents benefits to both Council and its citizens in enhancing effective and efficient service delivery and promoting good governance.

The next chapter will provide detail pertaining the design and methods used to gather data for the study.

CHAPTER FIVE: RESEARCH DESIGN AND METHODOLOGY

5.1 Introduction

Mainstream perspectives suggest that “the selection of an appropriate research design is crucial in enabling you to arrive at valid findings, comparisons and conclusions” (Kumar, 2011:33). The study intends to identify the opportunities presented by mobile government to determine how it may contribute to improved service delivery at the Municipality of Swakopmund. The data collected will be used to direct and inform service delivery within this institution. For this reason, it is essential to have a framework or guideline within which the research will be pursued and completed.

According to Terre Blanch, Durrheim and Painter (2006), a research design is a strategic framework or plan of action that specifies a series of activities guiding the conditions for the collection and analysis of data. Disparately, the methodology “focuses on the kind of tools and procedures to be used to obtain the relevant data for the study” (Mouton, 2001:56). In the interest of collecting accurate, sound and reliable information regarding the opportunities offered by m-Governance to improve service delivery, effective interventions should be taken to provide evidence thereof. This chapter outlines and justifies the selected strategy and the methods used to obtain the relevant data for the study.

5.2 Research Design and Approach

According to Denscombe (2010:99) “a research design provides a description of the various components of the investigation, specifies the approach that will be adopted and gives details about the methods of data collection and analysis that will be used”. The principle question this study tries to answer is how m-Government can be used to improve service delivery within local government sphere of Namibia, and to address this question, an exploratory qualitative research approach was adopted.

“An exploratory study is used to make preliminary investigations into a relatively unknown area of research and employ an inductive approach to research as they attempt to look for new insights into a phenomenon” (Terre Blanch, Durrheim and Painter, 2006:47). m-Government is a relatively unknown phenomenon in Namibia that is rapidly gaining momentum in other parts of the world and research in this area is valuable for Namibia, especially for the local government fraternity, as it contributes to service delivery in the public sector. The information collected may be used to draw conclusions on the impact of m-Government in order to assist local government with information that will facilitate decision-making.

In order to provide new information about a relatively unknown phenomenon, data needs to be collected in the natural setting following a specific process in order to provide an in-depth description and understanding of actions (Babbie and Mouton, 2001). These are typical characteristics of a qualitative research approach which places its focus on the process rather than the outcome and allows the researcher to produce descriptive data that helps develop insight and understanding of an existing phenomenon that intends to augment the research findings (Burger, 2014). It therefore infers that this exploratory research will also be qualitative in nature.

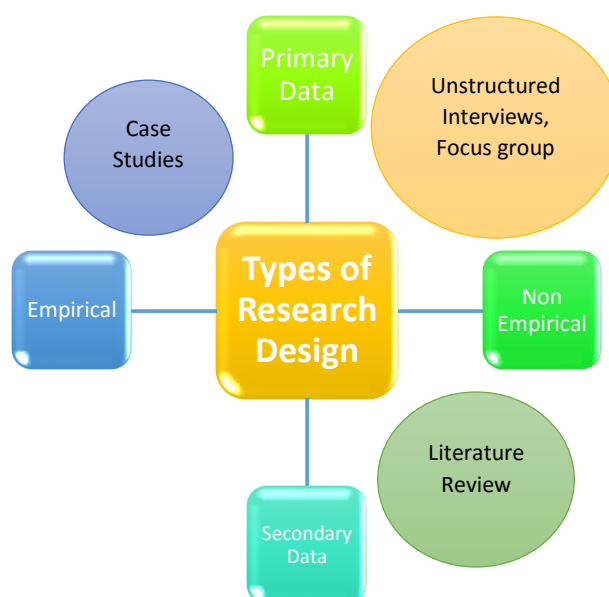
In an attempt to find answers on how to address the service delivery issue through mobile governance, the process of deduction or induction or by a combination of the two can be applied. “Deduction is the process by which we arrive at a reasoned conclusion by logical generalization of a known fact while induction, is a process where we observe certain phenomena and, on this basis, arrive at conclusions” (Sekaran, 2003:28). Research with a qualitative exploratory approach, as in this case, usually applies an inductive process as they attempt to look for new insights into a phenomenon.

5.3 Type of Study

The key objectives of this study are as follows:

- To determine the general impact of m-Government on service delivery within the local government sphere;
- To draw lessons from best practices provided in case studies of other countries;
- To examine the practical implementation of m-Government within the Municipality of Swakopmund and identify opportunities for improved service delivery, and
- To provide recommendations that can be implemented to enhance service delivery within the Municipality of Swakopmund.

Drawn from the objectives of the study the paper can therefore be classified according to the following framework:

Figure 16: Research Design Types

/Source: Adapted from Babbie and Mouton (2001)

The framework above classifies the research design types and distinguishes between empirical and non-empirical data, as well as the types primary or secondary data. Research studies using empirical and non-empirical data implicate the reliance on first-hand information from the source and the use of previously hypothesized phenomena (Kothari, 2004). Collecting data from existing resources can further be classified as secondary data, while those collected directly from the source for the first time is known as primary data (Kothari, 2004). The framework above indicates that this study applies a more holistic technique of collecting information, through the use of a literature review, case study, focus group and interviews. In this manner an objective analysis can be made of the benefits limitations and challenges that m-government can bring to improve service delivery at the Municipality of Swakopmund. These methods of data collection will be clarified in the next section.

5.4 Methods of data collection

The tools and procedures that will be used to obtain the relevant data for the study make up the research methodology (Mouton, 2001). This study applied different tools and procedures in order to attack the research problem. The methods used to collect relevant data for the study includes the literature review, case study, focus group and semi-structured interview, which are explained in more detail below.

5.5 Literature Review

“The review of the literature provides you with available information in order to track down the latest knowledge and to assess it for relevance, quality, controversy and gaps” (Walliman, 2011:52). The researcher investigates and considers relevant publications on the area of study that allows the researcher to better understand the research problem. According to Walliman, this information allows the researcher to determine the need for future research to further fill the gaps. Sekaran (2003) adds that the literature review provides the foundation for developing a comprehensive theoretical background and gives a good basic framework to proceed further with the investigation.

Local government in Namibia faces various challenges which hamper service delivery, among them responsiveness. Firstly, the literature study investigates the latest writings on these challenges and service delivery methods within the local government sphere. Secondly, the literature will explore the concept of mobile governance, which is a relatively new concept in Namibia but which is gaining popularity rapidly in other parts of the world. Previous studies done in other parts of the world were collected as well as available data contributing to the topic. Finally, lessons were drawn from selected countries such as India and South Africa using these examples as best practices as well as to depict the challenges and limitations and drawbacks which should be considered. Although the history and characteristics of India and South Africa may differ from Namibia, these countries have shown great strides in terms of implementation of m-Government and could thus provide enough information for drawing correct inferences befitting local government in Namibia.

Relevant sources for the literature review which was used in this study include books in print, documents, published articles in newspapers, journal articles, census data, dissertation abstracts, conference proceedings, government publications and other reports. Through providing all the existing information about the problems faced by local governments in Namibia, as well as the impact of mobile government on service delivery in the local government fraternity, the literature reviewed thus gives a critical position on the ideas contained therein to enhance the quality of the paper (Walliman, 2011).

5.6 Case Studies

According to Bacon-Shone (2015), the case study method focuses on understanding the full scope of the problem, and thus involves studying a case in great depth with the expectation that this gives deep insights into the process. For the purpose of this study, the particular unit under

observation will be the Municipality of Swakopmund which forms part of the local government sphere in Namibia. Studying the Municipality of Swakopmund enables the researcher to consider how mobile government can influence service delivery at this institution by the context within which it is situated (Baxter and Jack, 2008).

The study will analyse processes or conditions at this institution and their interrelationship which may impact mobile government. The researcher collected data about this Municipality to obtain a holistic understanding of operations within this local authority that will contribute to the researcher's understanding of the impact mobile government may have on this institution. As the various threads of data from sources such as documentation, and archival records and interviews are amalgamated, it promotes a greater understanding of mobile government's impact on service delivery and adds strength to the findings (Baxter and Jack, 2008). The case study is essential to provide an in-depth analysis on the challenges faced by the Municipality of Swakopmund and the possibility of introducing m-Government to address these challenges and so enhance service delivery. The data collected through the case study should provide Namibian local authorities, in particular, the Swakopmund Municipality, with necessary factual information to realize the impact m-Government can make towards service delivery and provide the relevant knowledge to make the required budgetary and/or policy provisions as required.

5.7 Focus groups

“In a focus group interview, you explore the perceptions, experiences and understandings of a group of people who have some experience in common with regard to a situation or event” (Kumar, 2011:152). This data collection method can also be seen as an extension to the interview method where group discussions are directed by an interview schedule and facilitated by the researcher. For the purposes of promoting more discussion and keeping the group to task, it was effective to invite a total 12 general managers and managers of the Swakopmund Municipality who form part of the decision-makers within the institution. This group of participants was chosen because of their common characteristics and experience as the administrative leaders of the institution. Also, their thoughts and perceptions about m-Government are important to guide future decisions.

A focus group interview gives researchers “the ability to capture deeper information into how people think and provides a deeper understanding of the phenomena being studied” (Nagle and Williams, n.d). This is because discussions more informal and open to allow interaction by all

participants in a free participatory setting. Each participant was given an opportunity to argue their views regarding the topic in a dynamic and mutual social learning context through which the researcher could gain more insight on the topic and where participants could also learn from the discussions (Theron, 2008).

Choosing a focus group was deemed more effective, economical and less time-consuming for the researcher, considering the busy schedules of the respondents. It also encouraged group interaction and discussions through open-ended questions that captured the essence of the research and provided the researcher deeper information to ensure that valid conclusions are drawn from the research (Nagle and Williams, online). The focus group was also a useful way of discovering new interventions which may contribute to service delivery at the Municipality of Swakopmund.

5.8 Semi-structured interviews

According to Fox and Bayat (2007), interviews are a method of data collection which is considered a way of learning about events experienced by people in an interactive way. It is usually guided by the researcher using a limited number of questions asked to respondents in separate individual sessions scheduled at a convenient date and time. For the purpose of this research, semi-structured interviews were conducted with the head of the IT department at the Municipality of Swakopmund, as well as two officials in top management positions, representative from MICT, Telecom, and MTC and government sections. Through these interviews the researcher could explore the views of these officials on the concept of m-Government in enhancing service delivery at local authorities.

The interview guide was based on 15 questions which explored the prospective use of mobile governance within a local authority, as well as key challenges which may hamper the intervention thereof. To ensure objectivity and confidentiality, pre-obtained consent was provided by each participant to record 30-40 minute, face-to-face interview sessions through which the researcher gathered relevant information for the study. These sessions afforded the opportunity for participants to respond within the scope of the research so that primary data could be obtained. These data are useful to ascertain the practicality of implementing mobile government at local authorities as a means of improving service delivery.

Feedback was captured through notes, as well as observations and incorporated in the findings of this study. It should be noted that all relevant ethical considerations were followed such as

obtaining permission from the Administrative Head of the Municipality to conduct the study and the consent from participants which contributed to the validity and reliability of the study.

5.9 Reliability and validity of the data collection methods

It is fundamental that findings in a research are evaluated to ensure that they are credible. As such, concepts such as reliability and validity need to be implemented to enhance the quality of the research. According to Golafshani (2003) reliability ensures that the results of the research are replicable while validity ensures that the research actually measures what it intended to measure. Given the foregoing definitions, as well as the fact that m-government is a relatively new phenomena it is therefore important for this investigation to confirm that the methods used to collect data are truthful and of good quality.

To ensure that validity is enhanced, this qualitative study used the method of triangulation which can be described as the use of multiple methods of data collection to minimise biases (Babbie and Mouton, 2015). Information was sourced through various methods which include semi-structured interviews, a focus group, a literature review and a case study. Using triangulation thus enables the researcher to converge different sources of information which provides a more complete understanding of the impact mobile government has on service delivery. In this way, the researcher can be more confident that the information obtained does lead to more credible results.

Attempts to establish reliability was determined using indicators such as credibility, transferability, dependability and conformability. According to Golafshani (2003), these indicators provide the lenses of evaluating the findings of a qualitative research. To improve credibility of qualitative research, participants should perceive the results of the research to be believable (Trochim, 2006). Participants of interviews as well as those who participated in the focus group, were allowed to speak freely in their interviews without altering their responses and provided with feedback to allow them to confirm whether what was reflected in the answers, displays an accurate perspective of the response they provided during the interviews. Transferability can be enhanced through doing a thorough job of describing the research context and the assumptions that were central to the research (Trochim, 2006). Although the study is limited to the Municipality of Swakopmund, the idea is to generalise the results of the research to a larger local authority context for the benefit of the entire local government sphere. Dependability is described by Babbie and Mouton (2015) as the ability of a research to provide evidence that if the inquiry is consistent and repeatable in the same or similar context with the

same or similar respondents. On the other hand, “conformability is defined as the degree to which the findings are the product of the focus of the inquiry” (Babbie and Mouton, 2015:278). To establish dependability and conformability, the study ensured that an extensive and detailed record of the collected raw data such as recordings, documents, summaries, field notes and pilot interview schedules were documented to support the conclusions, interpretations and recommendations of the study.

5.10 Target Population

According to Babbie and Mouton (2015:173), “a population is the theoretically specified aggregation of study elements”. These study elements are drawn from the unit of analysis which is the object of our attention from which conclusions are drawn. The unit of analysis chosen for this study is the Municipality of Swakopmund in Namibia, from which a group of general managers and managers was selected to form part of the sample. The selected municipality were chosen because of practical reasons such as its proximity and access to the researcher. While the context of Swakopmund municipality may differ from other local authorities in Namibia, there are key issues which may impact the broader context within the Namibian local government sphere such as service delivery.

5.11 Sampling

“Sampling involves the selection of research participants involving decisions about which people, settings, events, behaviours and/social processes to observe” (Terre Blanch, Durrheim and Painter, 2006:49). The concept of sampling has been introduced with a view to making the research findings economical and accurate because studying the total population is not possible and it is also impracticable (Singh, 2006). It is necessary to select the research participants from the total population strategically so that the data obtained from the respondents represents a fairly true reflection of the study population in order to make generalisations from the findings. This study selected a group of general managers and managers of the Municipality of Swakopmund to form part of the sample.

There are two types of sampling techniques known as probability and non-probability sampling, where the former provides methods for estimating the degree of probable success; the latter relies on the available subjects (Babbie and Mouton, 2015). The sample was chosen following the technique of non-probability sampling which is often most appropriate in qualitative studies like this one. It therefore means that this study greatly relied on the availability of general managers and managers. Although some experts may view probability

sampling techniques as the most reliable representation of the whole population (Walliman, 2011), it is not always feasible and logical in social settings where the researcher attempts to create more understanding of a social phenomenon. For this reason, there are a number of non-probability sampling methods appropriate to different settings, such as purposive, snowball and quota sampling.

As this study is primarily qualitative in nature and mainly concerned with the detailed in-depth analysis of a particular phenomenon, purposive sampling was used to select participants who according to the researcher will bear relevance to the study. Purposive sampling is extremely useful for studies where the researcher uses his/her own knowledge of the population, its elements and the aim of the research to select the sample (Babbie and Mouton, 2015). The researcher selected the administrative heads of the various departments within the municipality of Swakopmund who are key in providing information that will help achieve the objectives of the study and improve the quality of the data. It was also useful to select participants from the IT department and from staff members who directly work with the public to gain important insights regarding the usefulness of mobile government. These participants have a key role in the formation and development of an effective and efficient, cost-effective and accountable administration in accordance with all applicable legislation within the Municipality of Swakopmund. It therefore means that this study assumed a non-probability, purposive sampling method when selecting its sample.

5.12 Analysis of data

Qualitative research is based on data expressed mostly in the form of words rather than on numbers (Walliman 2011). To analyse qualitative data therefore takes a different process than the traditional qualitative form. This research being an explorative in nature, aimed at gaining insight into and understanding about a particular phenomenon and as such collected data was used to identify and integrate pre-determined themes in the data and relationships between these themes. According to Terre Blanch, Durrheim and Painter (2006), the process begins with the identification of themes, which are then organised according to its principle functions, labelled into meaningful pieces and finally revised through a coding system.

This study collected data through various sources such as interviews, focus group, case study and documents. The collected data was analysed using graphical methods such as diagrams and tables and arranged into codes/themes to develop the relative significances of different factors and to reduce discrepancies in the data. Tabulating the material in Excel format was

done, to provide statistical information which could be effectively analysed to determine inherent facts for the purpose of interpretation and bringing more order and understanding to the data collected (Ibarolla, 2012). The methods include tables, graphs and write-ups.

5.13 Ethical considerations

This qualitative study involves collecting data from other researchers, documents of the municipality and department as well as collecting primary data from the municipal staff within their working environment. For these reasons, the researcher was obliged to balance the study's own information needs with the participants, so that the participants in the study are protected against disreputable purposes. Ethical considerations therefore ensure that the research will not harm participants or others involved and that professional standards of conducting the research are adhered to (Bradford University, 2007). This section presents the ethical aspects considered during the research process.

5.14 Confidentiality and protection of participants

Confidentiality refers to the situation in which the researcher, although knowing which data describes which subjects, agrees to keep that information private (Babbie and Mouton, 2015). Reamer (2013:57) advises that "confidentiality rights arise when individuals entrust others with private information". Information collected should thus be used for its intended purpose as agreed by participants. Furthermore, the study is focused on collecting data from the experiences of people: therefore, it is imperative to protect human subjects through the application of appropriate ethical principles (Orb, Eisenhauer and Wynaden, 2000). To ensure the confidentiality and protection of participants, the researcher requested the written consent of all participants during which they were provided with an information sheet clarifying the following aspects:

- The purpose and benefits of the study;
- The procedures to be followed;
- The potential risks and discomforts;
- Confidentiality and protection and
- Participation and withdrawal of participants

Given the above, "participants were confident that they would not suffer any prejudice as a result and any information they had given" (Bradford University, 2007:40). Participation in the study remained voluntary so that participants may feel free to withdraw at any moment without

any consequences. In addition, participants were assured that information provided would remain private and confidential and that all recordings, transcripts and study related information would be kept in a safe, encrypted and lockable storage accessible only to the researcher. This written consent also assured participants that the interview would not contain any personal or emotionally loaded questions and that no personal information will be collected during the interviews to further protect the participants.

“Qualitative research can be used as a powerful intervention tool that promotes respect for informants and empowers them as full participants in the production of knowledge” (Reamer, 2013:53). Ensuring that respondents in the research participate out of their own free will that they are protected and their information kept confidential, contributes to the adherence of ethical principles which ultimately enhance the quality of the research.

5.15 Summary

This chapter provides an outline of the approach followed and the tools used to achieve the various objectives of the study, as well as measures taken to ensure that the information conforms to the ethical standards of social research. This exploratory study is mainly qualitative in nature and therefore implied various data collection methods which are both empirical and non-empirical. It includes primary and secondary data to enhance validity and reliability of the study.

The research used mixed methods of data collection aimed to capture empirical as well as non-empirical data. Empirical data was collected from employees of Swakopmund Municipality through conducting a focus group and semi-structured interviews conducted with various role players in the Namibian ICT fraternity. This data enabled the researcher to quantify data and present statistical findings as well. Non-empirical data was collected by means of literature reviews as well as case studies describing best practices from other countries.

Chapter 6 provides the results obtained in the study and aligns them with the data gathered in the case studies and literature review.

CHAPTER SIX: RESEARCH FINDINGS, PRESENTATION AND ANALYSIS

6.1 Introduction

This chapter provides an analysis of the information obtained through semi-structured interviews as well as the focus group. It illustrates the quantitative aspects of this research and shows how the objectives of the research have been fulfilled. The previous chapters provided a review of the relevant literature pertaining to m-Governance, as well as the case of the Swakopmund Municipality. The information in this chapter will be linked to the available theory provided in Chapters 2 and 3, in order to place the phenomenon of mobile governance into perspective for the Municipality of Swakopmund. These findings have the potential to influence decision-making in order to employ more effective and efficient means of improving service delivery, particularly within the local sphere of government.

6.2 Findings and analysis

The discussions concerning the findings are divided according to the tools used which are semi-structured interviews as well as a focus group.

6.2.1 Presentation of responses to semi-structured interviews

The aim of the semi-structured interviews was to explore the views of different stakeholders on the concept of m-Government in enhancing service delivery at local authorities. Interviews based on access, availability and time, were conducted with fourteen (14) respondents, who included staff of the Ministry of Information, Communication and Technology (MICT), Telecom, Mobile Telecommunications Company (MTC), Government and the IT head at the Municipality of Swakopmund. The information received confirmed that there is a need for the Municipality of Swakopmund to tap into the opportunities presented through mobile government. Interviewees had a good idea of the various opportunities offered on mobile platforms and the majority (93%) were of the opinion that familiarity with the challenges and now presented with effective means of addressing them, would encourage the Municipality to proceed. The Municipality was definitely ready for the implementation of m-Government services.

Below is a summary of the responses provided by interviewees in response to the questions posed.

(a) Which activities are practised by your Institution to realise its mission particularly pertaining communication?

Respondents employed in public Institutions mainly make use of Public consultation Meetings, Awareness Campaigns, Satellite Offices and online information to communicate with the public, except for the MICT, who uses various social media platforms such as twitter, WhatsApp, and Facebook, as well as newspapers to interact with the public. Respondents from Telecom and MTC, the only two Institutions in Namibia providing ICT telecommunications services, said that their organisations ensure that every corner of the country is able to enjoy wireless technologies as they continue to invest in infrastructures, and network upgrades to provide value-added services to citizens.

Responses indicate that Namibia's ICT landscape is well-developed, making room public Institutions to adopt ICTs within their organisations. The MICT have set the trend in their service delivery methods and proved how the use of ICT can change the governance architecture within the public sphere.

(b) How would you define mobile governance?

According to the responses obtained, 7% of respondents are not familiar with the term; however, 93% were able to define m-Governance. Respondents of the focus group informed the researcher that the concept was relatively new to them and that they had to familiarise themselves with the terminology before the meeting.

(c) Cellular mobile service to you is:

- Useful: 13 respondents referred to this type of services as useful;
- Essential: 12 respondents felt that mobile services are essential;
- A personal service: 8 respondents feel that mobile services were a personal service
- A status symbol: 2 respondents linked mobile services to a status symbol.

The responses obtained confirm that mobile services have become the preferred means of operation in the daily lives of citizens. It is no longer regarded as a luxury but a useful and essential device to have. This is also confirmed by the MTC (2017), who indicated in their annual report that active SIM connections constitute more than 100% of the population as the demand for access on more than one device like tablets and smartphones is multiplying.

- (d) On a scale of 1-5, with 1 being very cheap and 5 being very expensive, do you find mobile services in Namibia cheap or expensive?**

Table 8: Frequency/Cost of Mobile Services Dataset

CATEGORY	COUNT	CUMULATIVE COUNT	PERCENT	CUMULATIVE PERCENT
Very expensive	1	1	7.14286	7.1429
Expensive	2	3	14.28571	21.4286
Affordable	8	11	57.14286	78.5714
Not so cheap	1	12	7.14286	85.7143
Cheap	2	14	14.28571	100.0000

According to Table 8, most of the respondents felt that mobile services in Namibia are affordable. The remaining respondents had mixed views: they were either cheap or expensive. Unfortunately, Namibia has only one service provider. However, CRAN (2017) indicates that Namibia ranks 16th among African countries in terms of the cheapest voice and SMS products in a country, meaning that the cost of mobile services has steadily been coming down. Namibia is no longer a price leader in Africa, however, mainly due to the lack of domestic competition.

- (e) Using a scale of 1-5, what type of public services would you prefer on mobile platforms?**

According to 71% of the respondents, bill payments and marketing initiatives are the most preferred services that could be availed on mobile platforms. Sales, Applications and Frequently-asked Questions, were regarded the second preferred service on mobile phones by 64% of respondents. Adverts and enquiries were not highly favoured. However, more than 50% of the respondents considered it a desirable service. It is evident that respondents have already experienced services offered on mobile platforms which are regarded more citizen-centric.

(f) What challenges currently faced by the municipality can be addressed by mobile services:

Table 9: Frequency/Enquiries Dataset

CATEGORY	COUNT	CUMULATIVE COUNT	PERCENT	CUMULATIVE PERCENT
y	7	7	50.	50.
n	7	14	50.	100.

Table 10: Frequency/Long lines at Pay point Dataset

CATEGORY	COUNT	CUMULATIVE COUNT	PERCENT	CUMULATIVE PERCENT
N	6	6	42.85	42.85
y	8	14	57.14	100.

Table 11: Frequency/Access to Accurate and Reliable information

CATEGORY	COUNT	CUMULATIVE COUNT	PERCENT	CUMULATIVE PERCENT
N	4	4	28.57	28.57
y	10	14	71.43	100.

Table 12: Frequency/Effectiveness and Efficient Responsiveness

CATEGORY	COUNT	CUMULATIVE COUNT	PERCENT	CUMULATIVE PERCENT
N	6	6	42.85	42.85
y	8	14	57.14	100.

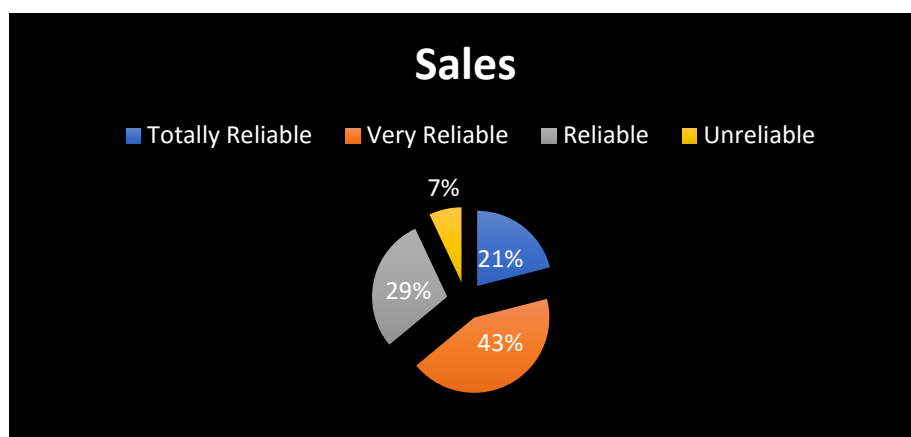
Table 13: Frequency Transparency

CATEGORY	COUNT	CUMULATIVE COUNT	PERCENT	CUMULATIVE PERCENT
N	9	9	64.28	64.28
y	5	14	35.71	100.

Tables 9 to 13 above, shows that the majority of respondents, 71%, felt that mobile services would provide a platform where accurate and reliable information could be accessed. Furthermore, 57% of respondents felt that long lines at pay points as well as effective and efficient responsiveness are key challenges which could be addressed through the implementation of m-Government. Handling enquiries and transparency were ranked lowest at 50% and 35% respectively.

- (g) On a scale of 1-5, with 1 being totally unreliable and 5 being totally reliable, how reliable are mobile services to you?**

Figure 17: Reliability of m-Services

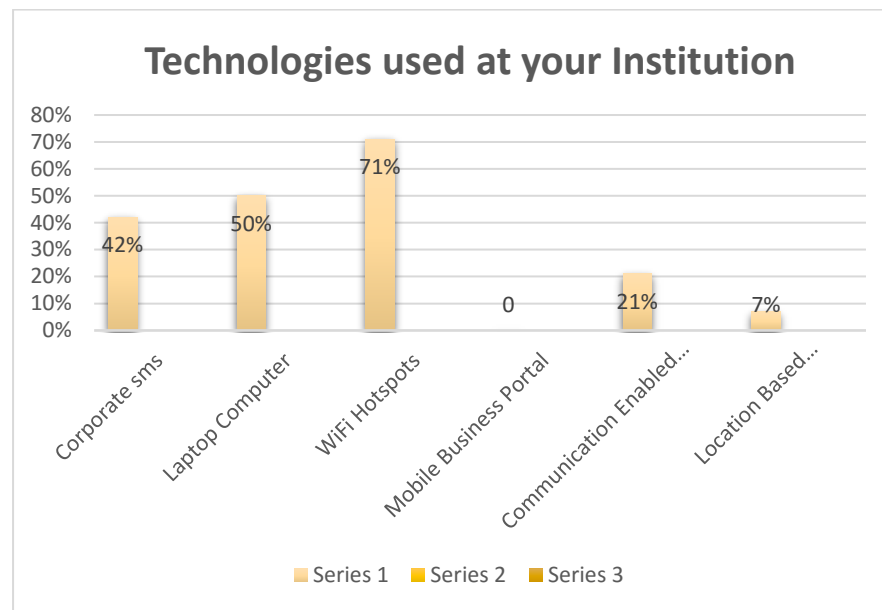


According to the above figure, the majority of the respondents (64%) conveyed that services on mobile platforms were either very reliable or totally reliable. This means that mobile services are a trusted means of service delivery for respondents.

- (h) On a scale of 1-5, please rate how important these reasons are for you to consider using mobile services.**

Faster interaction and 24-hour accessibility were rated as the most important reasons to consider mobile services, with 85% of respondents choosing these reasons. The fact that they are reliable and accurate was the least important reason indicated by 35% of respondents.

- (i) To establish the adoption of mobile technologies in your Institution, please indicate which of the following existing technologies have been deployed.**

Figure 18: Technologies used at your Institution

Wi-Fi Hotspots were the most commonly used service, as revealed by 71% of respondents. Although these are found at the Municipality of Swakopmund, it is not available to all officials and the public at large. The only section using corporate sms in the Municipality is the properties and housing officers. Although laptops are accessible, their use is limited to all employees because there are only 2 laptops per department.

(j) Which tools or methods can the Municipality invest in to improve governance mechanisms and processes within the municipality?

Table 14: Methods/Tools to improve m-Government

1) Self Service Kiosks	57%
2) Municipality Information App	50%
3) Online applications	42%
4) Electronic billing	42%
5) Electronic help	28%
6) Communication enabled Apps	28%
7) Public Information Terminals	21%

Table 14 indicates that self-service kiosks were the most preferred tool identified as a means to improve governance, while a municipal information application as well as online applications was considered the next desired methods which respondents felt could improve service delivery at the Municipality. The table below indicates the preferred methods in a sequential manner according to the most preferred.

- (k) The MICT have proposed new legislation regarding access to information, social media and communication, aimed at encouraging the public to take part in decision-making processes and to improve accountability and good governance. Does your Institution have any legislature for mobile or any electronic services in the future? Yes/No (Please explain)**

All respondents indicated that they did not have any legislation available in this regard. The MICT who is the custodian of ICT services in the country was thus tasked with creating more awareness in public Institutions regarding available regulations on ICT in Namibia.

- (l) Do you agree with the following statement: “Mobile services promote accountability and good governance”?**

Figure 19: Accountability and Good governance



Figure 19 depicts that the majority of respondents agreed with this statement as a result of the experience they had obtained through the private sector. Respondents were thus anticipating the positive impact mobile services would have nationally and internationally.

- (m) What are the challenges you foresee if the Municipality adopts mobile services?**

Respondents equally (50%) rated security issues, digital divide, lack of skilled staff and lack of policies as key challenges which could hamper the implementation of mobile services. According to the OECD/ITU (2011), these are all challenges pertaining to the organisation, Institutional capacity, technical and governance challenges identified.

(n) Do you think these challenges can be addressed? Please motivate your answer.

All respondents were confident that these challenges could be addressed. The following suggestions were provided for government to implement in this regard:

- Diversify the languages when reaching the public and the same be done with the various radio stations;
- Appoint skilled workforce through involvement of tertiary Institutions to train staff and prospective job seekers on the required technologies;
- Implement strict policies i.e. Cyber security policies that look after security aspects of users and monitoring and evaluation of services provided in order to remain pro-active instead of re-active;
- Provide content which uplift the skills of people and impact productivity by regulating and controlling content on social media pages;
- Restrict access to relevant content only and block certain information especially for young people;
- Improve connectivity in rural areas for 100% accessibility;
- Get politicians and leadership on board to ensure informed decisions are taken;
- Get the country connected on satellite, which will rule out connectivity challenges;
- Ensure that mobile government practice is not to the detriment of the poor and marginalised but to their advantage - to break the digital divide by creating services fit for various types of mobile devices;
- Adopt policies in support of e-Government initiatives of national government and ensure that national goals in terms of ICT services are achieved;
- Network and combine efforts with telecommunication service providers to come up with adequate strategies and financial support to sustain such services and ensure that they are effectively used;
- Ensure that m-Government becomes part of the rolling budget in public Institutions for a pilot project before rolling out the entire service;
- Conduct more research to identify framework for implementation of m-Government and consider financial implications; and
- Address language barriers through translation services in all national languages.

(o) Do you consider the Municipality ready for implementation of mobile and electronic services to the public?

Table 15: Readiness for m-Services

CATEGORY	COUNT	CUMULATIVE COUNT	PERCENT	CUMULATIVE PERCENT
Somewhat Ready	6	6	42.86	42.86
Definitely Ready	5	11	35.71	78.57
Not Ready at all	3	14	21.43	100

While the minority of respondents (only 3) did not believe that the municipality is ready for the implementation of mobile services, the remainder believed that the municipality is either somewhat or definitely ready.

6.2.2 Focus Group Findings

In an attempt to gain more in-depth information on how employees think and provide a deeper understanding of m-Governance, a focus group was conducted with 7 middle management staff of the Municipality of Swakopmund. The focus group was held on 28 September 2018 at the Municipality of Swakopmund, Community Development Services boardroom and started two o'clock.

Twelve invitations were sent out to middle management officials in the various departments of the Municipality: Finance, Corporate Services, Engineering Services, Community Development and Health Services. The aim was to allow the various professions to draw from one another as they shared their views and opinions on this relatively new phenomenon. The invitations included an information sheet and consent form prior to the group interview. However, 5 officials tendered their apologies as they could not attend the session due to other commitments. The focus group was therefore attended by 7 officials, of which 3 were male and 4 female. All hold tertiary qualifications in their respective, specialised fields.

The facilitator started off by welcoming participants and explaining the purpose of the research. The discussion process was then described along with a few ground rules to allow for minimal disturbance during the recording. Participants were reminded that responses would be kept confidential and that data collected through the recording would be kept safely. Participants

were also provided with the interview questions and were allowed to make notes should they choose not to answer a question. The facilitator was guided by 16 semi-structured interview questions to provide opportunities for discussion of personal experiences. Participants provided the following responses:

(a) What are the governance mechanisms and processes that the municipality undertakes?

Participants shared views on the various responsibilities in their departments, including:

- Refuse removal services;
- Providing or driving all the essential services to the internal clients;
- Providing services in accordance with some policies that governing the operations of the organisation on a daily basis;
- All financial transactions, guided by standard operating procedures;
- Economic development sections, where they are more involved in developing policies that are aimed to enhance the local economy and specifically look at SME development, and strategies that are aimed to attract investment in town, and provide the sites and premises for SMEs, amongst others;
- Community development services, mostly interactions with people regarding low cost housing and informal settlements - the department captures data of residents in need of housing through registration exercises; and
- Traffic services, to ensure that Swakopmund is an accident-free town.

(b) Which activities are practised by your Institution to realise its mission particularly pertaining to communication?

Public consultation meetings are the only activity with which all respondents resonated. Respondents expressed the need for the Institution to do more in terms of communication with the public as well as within the Institution.

(c) How would you define mobile governance?

All participants agreed that it was the provision of services through technological platforms.

(d) Cellular mobile service to you is:

All participants viewed mobile services as useful and essential in their daily lives, and a few saw it also as a personal tool.

(e) On a scale of 1-5, with 1 being very cheap and 5 being very expensive, do you find mobile services in Namibia cheap or expensive?

Participants had a split view regarding the costs of mobile services. Where some (57%) felt the costs were not so cheap or affordable, the remainder (42%) felt they were expensive and could not be afforded by a non-working class person.

(f) Using a scale of 1-5, what type of public services would you prefer on mobile platforms?

All participants preferred to pay their municipal bills through mobile platforms; many participants also preferred marketing and municipal applications on mobile platforms.

(g) What challenges currently faced by the municipality can be addressed by mobile services?

Fifty seven percent (57%) of the participants shared the same view, that enquiries, long lines at pay point and access to accurate and reliable information were key challenges which could be addressed through mobile services as they would surely save time and costs. In addition, respondents felt that providing the public with the relevant information was also important if an open-door policy is to be promoted.

(h) On a scale of 1-5, with 1 being totally unreliable and 5 being totally reliable, how reliable are mobile services to you?

Most of the respondents (71%) agreed that mobile services are reliable. Some (14%) thought they were very reliable while 15% felt they were totally reliable. It is thus deduced that from the experience of participants, they fully trusted mobile services.

(i) On a scale of 1-5, please rate how important these reasons are for you to consider using mobile services?

The majority of participants (86%) agreed that most of the reasons provided are important when considering mobile services.

- (j) To establish the adoption of mobile technologies in your Institution, please indicate which of the following existing technologies have been deployed in your Institution?**

Participants were concerned as they concluded that the Institution is actually lagging behind when it comes to technology. Some participants had access to laptops; however, such access was limited, while the Wi-Fi available within the Municipality was not accessible to staff members except top management and Council.

- (k) Which tools or methods can the Municipality invest in to improve governance mechanisms and processes within the municipality?**

Most of the participants (57%) were of the opinion that self-service kiosks, a municipal information app, and electronic billing as well as online services, are methods the municipality could invest in to improve governance mechanisms.

- (l) The MICT have proposed new legislation regarding access to information, social media and communication aimed at encouraging the public to take part in decision-making processes and to improve accountability and good governance. Does your Institution have any legislature for mobile or any electronic services in the future? Yes/No (Please explain)**

All participants agreed that the Municipality did not have any legislature for mobile services or electronic services.

- (m) Do you agree with the following statement: “Mobile services promote accountability and good governance”?**

Participants were not too certain about the effect mobile services may have and thus most of them chose to remain neutral on the statement provided.

- (n) What are the challenges you foresee if the Municipality adopts mobile services?**

Language barriers and lack of existing policies were the main challenges foreseen by most of the participants (71%). Some also felt that inappropriate content may become a challenge as well.

(o) Do you think these challenges can be addressed? Please motivate your answer.

The following responses were noted:

- Yes - Capacitate staff and empower them to deliver adequate services.
- Yes - Develop functional policies that enhance the daily service delivery of this organisation.

(p) Do you consider the Municipality ready for implementation of mobile and electronic services to the public?

Participants were all in agreement that the Municipality was definitely ready for the implementation of mobile services.

6.2.3 Discussion of findings

As confirmed by Esterhuizen (2016) in Chapter 2, the population of Swakopmund is growing at an exponential rate of 5.4% per annum. Hence the demand for services has exceeded delivery. The UNDP (2000) emphasises that modern societies are compelled to continuously search for ways and means to restructure service delivery to meet the changing needs of citizens. There is thus excessive pressure on the Swakopmund Municipality to come up with more effective and efficient approaches that can respond promptly to the ever-increasing needs of its citizens.

The effectiveness of local government is largely determined by its responsiveness to the needs of these citizens, and responding to the needs of the citizens it governs can be regarded as one of the greatest virtues of local government. The literature reviewed also indicates that mobile technology offers a myriad of opportunities which offer benefits to local governments.

In order to examine the practical implementation of m-Government within the Municipality of Swakopmund and to identify opportunities for improved service delivery, this section will elaborate on the findings by discussing them according to three main themes:

- The meaning and key features of m-Government;
- The benefits and opportunities presented by m-Government, and
- The resources and challenges accompanying m-Government.

6.2.3.1 The meaning and key features of m-Government

According to the literature, m-Government consists of wireless technologies used to deliver information and services to citizens (Raja and Melhem, 2012) and is not limited to location but is operational anytime, anywhere. m-Government is provided through various features which include mobile devices and their associated technologies, software in the form of network services and applications. With reference to the OECD/ITU (2011), mobile devices have lower costs and easier use, removing barriers and empowering citizens to quickly and efficiently connect to government for public services.

As noted in the findings, the respondents have a sound understanding pertaining mobile technologies and its features. The various features mobile phone is evidently not new to respondents, who could identify which services they would prefer on mobile platforms. The associated technologies of mobile government present at the Municipality of Swakopmund include laptops, electronic tablets, Wi-Fi connectivity, internet access, a municipal website and access to corporate sms. These existing technologies are key components needed in the development of m-Government services within the municipality.

In addition, the feedback obtained confirms that there is a need for local government to maximise the utilisation of mobile technologies and the opportunities it offers to enhance service delivery. Respondents from the MICT, Telecom and MTC observed that Namibia has invested towards the relevant ICT infrastructure to provide for connectivity across the country. MICT is spearheading the provision of an all-encompassing legal framework as a vehicle towards effective governance and service delivery in the ICT sector that will regulate the use of ICT in the country. Telecom has ensured that Namibia's "telecommunications backbone was 100% digitalized with state-of-the-art underground fibre-optic cabling, which facilitates access to advanced technologies, products, applications and services" (IST Africa online, 2017: par. 14). Namibia's leading network operator, MTC has launched the country's 4G and 4.5G technology in 2012. It boasts a mobile coverage of 95% offering affordable tariffs to its population and continues to ensure that mobile broadband grows with an exponential upward trend since 2015 (CRAN, 2016). Stork, Calandro, and Gamage (2013) recommend that fixed line incumbents should start using mobile services because converting all existing fixed lines into data lines would increase broadband penetration drastically.

According to Helmut Lindner (2018), ICT consultant for the Municipality, the rapid penetration of mobile access has without a doubt give rise to significant improvements in

service delivery. Similar sentiments were shared by Telecom and MTC staffs which suggest that this trend is going to continue, as the availability expands and consequently costs of access will congruently continue to decline. The Municipality of Swakopmund therefore has the opportunity to tap into this niche and explore ways and means to effectively improve service delivery within its financial means. The following discussion looks at the benefits and opportunities presented by m-government, to further empower the Municipality with added knowledge when considering this method of service delivery.

6.2.3.2 The Benefits and Opportunities presented by m-Government

According to Swilling and Annecke (2012), the era of ICT has transformed production, consumption, distribution, finance and communication around the world, presenting beneficial opportunities for governments to improve service delivery. As citizens are becoming more connected through mobile devices, the landscape of local government is also changing and the pace of change and expectation is accelerating every day.

Initiatives presented by South African local governments have proved to be more customer-friendly and citizen-oriented, uplifting the socio-economic conditions, as services are available to citizens anywhere and anytime (City of Cape Town, 2005). A similar experience was indicated by India, where this mode of service delivery has created an integrated digital platform and services are delivered at the convenience and immediacy of citizens. m-Government services are “accessible to citizens irrespective of location, “anytime, anywhere” bringing the biggest benefit to citizens and local government (Sapkhale and Kulkarni-Bhende, 2015:114).

According to the data collected in this research, mobile services are a useful and essential part of people’s lives, as well as a personal tool. Respondents further reflected that it can be used to address key challenges currently experienced such as enquiries, long lines at pay points and access to accurate and reliable information. In an interview with Mr Helmut Lindner, the head of ICT at the Swakopmund Municipality, he confirmed that Wi-Fi is already available at the Institution, though not accessible to all, mainly due to security reasons. Respondents in the focus group strongly felt that since the Institution made provision for many of its staff to gain access through mobile devices, and bearing in mind that even banking facilities are available on mobile platforms, there should be a sense of urgency for the Institution to embrace the fascinating and innovative changes offered by mobile devices.

The Municipality has already taken the initiative to move away from paper-based meetings and has provided all management and Councillors with electronic tablets for electronic access to agendas and minutes. This example was also presented in the literature by Thakur and Singh (2013) in the case of Newcastle municipality. Newcastle's website offers e-billing, e-services, e-faults, and e-help, all of which can also be accessed through mobile devices, whereas the website of Swakopmund Municipality can be characterised as an 'informant system' as it only provides basic information (Thakur and Singh, 2013). Considering the positive impact of electronic services, there is definitely room for the Swakopmund Municipality to invest more in ICT to enhance service delivery through accessible and responsiveness. Respondents of the focus group strongly felt that there was a need for senior management to identify the issues and trends available through mobile technologies to be able to respond to the changing society need of citizens.

As stated by Mpinganjira (2014), failure to respond to customer inquiries promptly and accurately can lead to disappointed citizens, thus m-Government content should be developed in mobile-ready formats in order to avoid frustrating citizens and to maintain easy access to much-needed quality information in a timely manner. Through the provision of responsive information exchanges, mobile technologies ensure that officials and Institutions are being responsive to the community while they provide public services and in so doing, they instilling trust in the government (OECD/ITU, 2011). As gathered from the literature, there is sufficient reason to believe that responding to citizens through m-Government platforms enhance responsiveness and efficiency; however, the information provided should be trustworthy.

The findings indicated that mobile services are found to be reliable, accurate and provide for faster interaction. Respondents therefore revealed that the Municipality should be able to provide various services on mobile platforms such as adverts, bill payments/enquiries as well as frequently asked questions. It is evident that respondents already have digital experiences guiding their expectations to have the Municipality become part of this trending digital world. As citizens are becoming more connected by the day, respondents expect drastic changes as digital transformation has become a necessity in service delivery. In this case, the Municipality also needs to take cognisance of the thematic discussion concerning the resources and challenges accompanying m-Government.

6.2.3.3 The Resources and Challenges accompanying m-Government

In light of the data collected, it is evident that the Municipality of Swakopmund needs to transform structures and strategies which will accommodate mobile technologies. It is equally important to highlight the resources available as well as the challenges present to ensure effective pro-active measures that will assist the Municipality to develop the most appropriate strategy.

Singh and Lubbe (2011) suggest that organisations should have someone dedicated to managing information resources that will ensure that employees are provided the relevant training regarding the use of online services. This recommendation was made in relation to their study, in which they evaluated the quality of free online information for decision-making. This suggestion, however, relates to the implementation of m-Government services and should be viewed against this background. The Swakopmund Municipality currently outsources its ICT services to a third party and this poses a threat to its sustainability. Apart from the human resources, the Municipality has put relevant technical resources in place, which includes network cabling, Wi-Fi, Internet service providers and a website with advertisements and basic information of services available. It is important that all relevant resources be in place and that all stakeholders are involved in the implementation process, according to Melhem (2012).

The literature further presents the following challenges as a pivotal piece before the execution of m-Government can take effect:

- The continuous demand for good services;
- Readiness to adopt m-Government services;
- Institutional capacity;
- Addressing organisational challenges;
- Meeting technical challenges;
- Meeting governance challenges and
- Addressing social challenges

According to the findings, 100% of the respondents were positive that prospective challenges such as those identified in the literature can be addressed with the relevant political and administrative support to drive the implementation of m-Government. Ndou (2004) suggests that a comprehensive and holistic approach needs to be adapted by any Institution to be able to manage a set of issues, problems and related challenges.

Furthermore, the findings indicate that the Municipality of Swakopmund is definitely ready for the implementation of m-Government and that challenges presented be resolved with the buy-in of visionary and flexible leaders. These findings suggest a clear roadmap be drawn up which the Municipality can adopt in its pursuit to implement m-Government.

Another important consideration identified by the Head of the ICT department at the Municipality of Swakopmund is the financial constraints faced by the Municipality, which hamper the consideration of innovations presented to Council by various players in the ICT industry. Unfortunately, m-Government services imply initial and on-going costs which are a crucial part of the planning process and which also drive decision-making. According to Foghlú in Al-khamayseh and Lawrence (2005), utilisation of private mobile operators' infrastructure through partnership offers more affordable and secure mobile solutions. With the partnership of Telecom, MTC as well as MICT, Council could explore cost-effective measures which could reap mutual benefits during this digital transformation process.

6.3 Limitations

Firstly, a clear limitation to this study was the unavailability of management staff that was initially targeted for the focus group interview. This hampered data collection which was clearly a drawback in terms of time, as scheduled sessions were delayed inadvertently. Although invitations were sent out to all general managers and managers, surprisingly no feedback was obtained except from the Acting Chief Executive Officer, who assisted in scheduling appointments with the management which had to be cancelled three times as a result of work overload. The focus group session was therefore readdressed to middle management staff who agreed to have the focus group on 25 September 2018.

Secondly, this study was limited to the Municipality of Swakopmund but impacts and affects various local authorities as well as government Institutions in general. However, the sentiments shared by staff members interviewed may not apply directly to other government offices.

6.4 Summary

The aim of this chapter was to link the empirical data collected with the available theory, highlighting the potential of m-Governance to enhance service delivery at the Municipality of Swakopmund.

The chapter presented an illustration of the insight of employees obtained through semi-structured interviews and a focus group with regard to their experiences with mobile

technology. The study also explored the opinions of other stakeholders such as the employees of Telecom and MTC Namibia, government Institutions such as the MICT, which is the custodian of technology in Namibia, as well as staff of BCX, managing the ICT department of the Swakopmund Municipality.

The interviews revealed that respondents were well aware of mobile services, and found these services useful, essential, reliable and affordable. According to the respondents, these services saves time and cost are easy to use and much more accessible, as they can be used anytime, anywhere. According to the data collected, the Municipality has the necessary infrastructure in place to roll out m-Government services. However, incapacitated by financial constraints and motivation from management to drive the idea, is a barrier. Respondents from mobile telecommunication companies confirmed that they were capable of providing the necessary support and products needed to deliver on the initiatives requested by public Institutions.

There is a general concern over security and privacy involving mobile services especially in the absence of any legislature which protects data. This concern is critical for Institutions to ensure that the relevant precautions are secured in their systems and software that cannot be compromised. The MICT have already commenced with the proposed bill on cyber security during February 2017 which was drafted with the assistance of the ITU.

The focus group discussion amongst the middle management staff was an informative brainstorming session where colleagues could identify the challenges they are faced with and the need to change certain operating methods within the Institution to enhance effectiveness and efficiency. The group was in agreement that technology is a key driver in the delivery of services as it already dominates the way we live. The group therefore strongly supported the need for the Municipality of Swakopmund to consider the implementation of services such as mobile technology to enhance service delivery. They also agreed that the challenges identified were not insurmountable but could be resolved without difficulty.

The study has collected all relevant data as such the next Chapter will present the conclusions and recommendations gathered through the various sources.

CHAPTER SEVEN: CONCLUSION AND RECOMMENDATIONS

7.1 Introduction

This study aimed at gaining new insight into the potential of mobile governance for service delivery at the Municipality of Swakopmund. According to the findings presented, it is important that the Municipality of Swakopmund recognizes the use of mobile technology to improve service delivery. It is, however, also important to ensure that relevant policies are in place and that a thorough risk assessment is executed in advance. This final chapter provides a summary of the findings and list key recommendations for the Municipality of Swakopmund.

At the outset, this chapter wishes to restate the various objectives established that guided the outcome of this study:

- To determine the general impact of m-Government on service delivery within the local government sphere;
- To draw lessons from best practice provided in case studies of other Countries;
- To examine the practical implementation of m-government within the Municipality of Swakopmund and identify opportunities for improved service delivery, and
- To identify alternative methods of service delivery offered through m-Government
- To provide recommendations that can be implemented to enhance service delivery within the Municipality of Swakopmund.

To achieve these objectives, the study was divided into seven (7) chapters which are summarised as follows:

Chapter One (1) introduced the purpose of the study, outlining the problem and significance of the study.

Chapters Two (2) and Three (3) aimed at realising the first two objectives of the study, which were to determine the general impact of m-Government on service delivery within the local government sphere and to draw lessons from best practice as represented by India and South Africa. In Chapter 2, a theoretical framework of local government is provided comprising an historic overview; the features associated with local government and local democracy; how the role of government changed, bringing in theories such as good governance, the importance of a responsive and efficient local government, and lastly, the environment in which local government operates, including the interaction with the external environment and the importance of participatory governments. This theoretical context therefore set the background

for understanding local government in its entirety, in order to identify with developing countries where this context may diverge to some extent.

Chapter Three (3) provided an historic background of the ICT era, and then described the e-Government opportunity which emerged from this technological age, after which the emergence of m-Government was illustrated. The chapter described the key features of m-Government, the opportunities and benefits it offers, how democracy is promoted through technology, and how responsiveness and efficiency are enhanced through mobile services. The m-Government phenomenon is not cast in stone; it has shortfalls and challenges which are important to consider before implementation. These are therefore important to observe. Finally, the chapter provided experiences drawn from countries such as India and South Africa, to generate insight into the phenomenon of mobile governance.

The Namibian position in terms of strategic reform was discussed as a backdrop to introduce the case of the Municipality of Swakopmund in Chapter 4, its background, structure, service delivery, challenges and the role ICT plays in service delivery.

The plan of the study is outlined in Chapter Five (5), where the research design, which was mainly exploratory, and the various methods of data collection adopted by the research, were discussed. The chapter also deliberated on the instruments used to gather empirical as well as non-empirical data and how research ethics were applied.

Chapter Six (6) examined the practical implementation of m-Government within the Municipality of Swakopmund and identified opportunities for improved service delivery, which is the third objective of the study. The insights and opinions of public service providers, stakeholders and municipal staff were obtained and the findings were presented and analysed.

Chapter Seven (7) therefore draws from the previous chapters to present conclusions and provide recommendations to the Municipality of Swakopmund. These recommendations serve to inform decision-makers of the potential m-Government offers to enhance service delivery within the Municipality of Swakopmund.

7.2 Conclusions

The conclusions of the study are aligned with the objectives presented in Chapter 1 and are presented as follows:

7.2.1 Conclusions from the Literature

It is fundamental that local government remains a dynamic institution because it continually has to become accustomed to the ever-changing needs of citizens. In response, local government is therefore required to continuously formulate progressive and innovative approaches to urban development models in order to meet the demands of citizens. As a tier of government which is closest to the people, it is fundamental that local government works closely with inhabitants to represent their interests in its developmental plans. Unfortunately, many countries in Africa inherited historic patterns set by colonialism which compounded development efforts, contributed to insufficient growth and frustrated residents.

Namibia is an example of a country which inherited inequitable development from its colonial predecessors. Despite developmental efforts such as decentralisation, local capacity constraints, inadequate resources to meet the increased responsibilities and corruption continue to hamper public service delivery. Consequently, frustrated citizens continue to demand accountable performance, which promotes responsiveness and improved quality of lives. It is therefore important that the fruits of globalisation and the information revolution are reinforced, particularly by local government, in an attempt to improve public services and quality of life at the local level.

The introduction of mobile technology has driven global development unprecedentedly as it has spread rapidly and filled many gaps created through the deployment of e-Government, especially in developing countries where many citizens could not access e-Government services. Mobile technology became known for its lower costs and ease of use, removing barriers and empowering citizens to quickly and efficiently connect to government. Furthermore, mobile government accelerates the interaction between government and citizens to enhance social and economic conditions for the betterment of all. Many countries have therefore thrown their weight behind the expansion of government operations to mobile platforms to deliver developmental outcomes. As a result, governments are transformed to a more citizen-centric operation, as accountability and transparency in governance improved.

The Namibian government values Information and Communication Technology (ICT) as a crucial enabler for socio-economic development and a knowledge-based economy. It therefore ensured that all relevant infrastructures are in place which interconnects all major economic centres across the country. The country also continues to make provision for adequate regulatory frameworks that promote the availability, accessibility and affordability of ICT.

Namibia has witnessed a rapid increase in the introduction of mobile cell phone services where network coverage has reached over 100%. It is initiatives such as these which offer opportunities for transformation of public administration in Namibia, in particular at local government level, the sphere of government which is closest to the community. As a learning experience, the best practices of m-Government were selected from South Africa and India.

A special parliamentary committee identified ineffective communication strategies at local government as one of the underlying causes of service delivery protests in South Africa, identifying the need to enhance communication between citizens and government (Ntliziywana, 2010). Initiatives drawn from the Municipality of Newcastle as well as big cities such as eThekweni and Cape Town Municipalities, have revealed that improved 24-hour accessibility and a more customer-friendly and citizen-oriented approach to service delivery can be achieved through mobile technologies.

As with most developing countries, India also experienced slow Internet penetration while the growth of mobile devices reached all corners of the country. This reality has prompted the Indian government to throw its weight behind mobile government and to promote digital empowerment of citizens through integrated digital platforms, where services are delivered at the convenience and immediacy of citizens. To expand these national efforts, the Indian government encouraged cities to follow suit and invest in the latest technologies to improve the living conditions of its citizens by promoting innovative smart solutions (Government of India, 2017). These 'smart solutions' include online government services, especially using mobiles to reduce cost of services, and providing services without having to go to municipal offices. The aim is to enhance accountability and transparency when delivering public services, which works to improve the quality of life.

The experiences presented by South Africa and India are not exhaustive but merely serve to provide awareness on the transformative effects of mobile technology. These efforts produced more open and accessible, customer-focused institutions, and thus established a standard suitable for widespread adoption. The municipality of Swakopmund in Namibia cannot be compared to the cities identified and can therefore not simply imitate these examples, but should be inspired to take cognisance of the optimal results established through the implementation of mobile services.

7.2.2 Conclusions from Case Study

The Municipality of Swakopmund is classified as a part I Municipality in Namibia which is marked by rapid urbanisation and population growth. The demands on service delivery have consequently exceeded the provision thereof, leading to unresponsiveness and public disillusionment. In addition, the tendency of maladministration and rent seeking behaviour also threaten development efforts and create mistrust between the public and the Municipality.

The Municipality has been recognised for its effective management style and service delivery; however, rapid growth has placed immense pressure on the demand for services. Consequently, the town is faced with various challenges pertaining to efficient and effective service delivery, as it continues to strive towards achieving its goals in its strategic plan. As indicated by Melhem, (2012), the response to the continuous demand for good services as well as the actual transformation of new technologies is key challenges for local governments. Efficient and effective service delivery also forms an integral part of Namibia's developmental growth and should be prioritised in all planning efforts at local government level.

The need to transform service delivery and maintain the dynamic status attributed to the Municipality was cited as crucial by officials and stakeholders as well. The Municipality of Swakopmund has the ability to deliver more effective services through breaking barriers which hamper development. Current methods of communication have become out dated and ineffective; thus the municipality fails to deliver the necessary results. It is vital that residents have access to reliable information in a timely manner.

The Municipality has a website which provides only basic information and application forms. It also has access to wireless technologies and has provided electronic tablets to Council and management members in an attempt to move away from paper-based agendas. Messrs BCX is responsible for the management of ICT facilities and ensures that the Municipality is equipped with the best technological equipment for effective service delivery.

Figure 20: Swakopmund Municipality Website

Source: <http://www.swkmun.com.na>

The website of the Municipality of Swakopmund is depicted in Figure 19 above. The control of the website is outsourced to Messrs Namdok Investments cc; however, the website can be updated internally. The website mainly keeps the public updated on current situations through providing the latest information, policies, forms and regulations. This platform forms a foundation for maximum access to public services and the town's transition to achieve a knowledge-based society.

7.3 Recommendations

The last objective of the study is to provide recommendations that can be implemented to enhance service delivery within the Municipality of Swakopmund. The opportunities and benefits offered by m-Government are clear; however, the direction towards the implementation thereof seems uncertain. Considering the fact that this phenomenon is quite new to the Municipality of Swakopmund, it is necessary to provide a clear roadmap in the form of recommendations for possible execution. Following the conclusions highlighted above, the following recommendations are proposed to enhance service delivery through mobile governance at the Municipality of Swakopmund.

7.3.1 Automation of municipal operations

Wi-Fi access at Municipal Buildings should be commissioned to improve connectivity and dismiss the limited effect of reducing information inequality. Platforms for online applications

and notifications via mobile platforms should be created, allowing citizens to access services “anywhere, anytime” and providing easy, timely access to accurate and relevant Council information. Services which are suitable for every phone and in various local languages should be created to bridge the digital divide and language barriers. The buy-in of stakeholders such as telecom and MTC and MICT should be ensured during the design and implementation of mobile services, according to the profile of customers.

7.3.2 Review and design legislature which are digital age appropriate

According to NDP5, ICT in Namibia is a crucial enabler for socio-economic development and a knowledge-based economy, as envisaged in Vision 2030. The MICT has therefore been diligent in the task of developing and reviewing ICT policies and laws. In this regard, they have submitted new laws pertaining to cyber security, electronic transactions, and social media use to parliament. The Municipality should therefore work closely with the MICT in the compilation of institutional policies that govern the use of digital technologies at local government.

7.3.3 Lobby political will to impact decision-making

The Municipality of Swakopmund has a computer committee established to adopt, manage and control ICT infrastructure and initiatives. This committee is, however, non-functional according to the ICT department and only sat once this year. The purpose of the committee is to discuss new ideas and work on improvement of ICT services as proposed by the study. Unfortunately, technological advancement is not driven internally and does not enjoy the necessary attention. In addition, various proposals from ICT specialists offering value-added services such as mobile application development, incorporation of push notifications, electronic billing, website development, GIS and remote sensing services to the Municipality, were not considered. Leadership from both political and administrative platforms is fundamental in these areas and should ensure the execution of tasks in a diligent manner.

7.3.4 Establish appropriate budget and allocate sufficient funds for roll-out of mobile services

Many proposals presented are at cost-to-Council and thus pose some concern due to current financial constraints. This means that service delivery options should be meticulously budgeted for in order to ensure that they do not add to Council’s already heavy financial burden. It is more practical to involve stakeholders such as Telecom and MTC during the design and implementation phase of mobile services, to ensure that costs are kept minimal.

7.3.5 Capacity Building

The pace at which technology is advancing affects users as well as administrators. It is thus essential that skills upgrading takes place on a regular basis. Technology can make workers more productive but not when they lack the know-how. A well-designed Internet-based training programme should be in place to help workers to upgrade their skills.

7.3.6 Mitigate security risk factors in advance

Cybercrime and privacy violations should be regulated through adequate policies and digital safeguards, which will promote favourable conditions for effective use.

7.4 Future Research

The Namibian local government sphere is still recovering from past scars of segregation as it tries to foster development amidst numerous challenges. This transformation process calls for the rearrangement of infrastructure, policy and legislation in order to add value to the governance system of the country. It is essential that more research is thus conducted into local government systems and functioning in order to arrest past inconsistencies and improve new legislation inherited from colonial past.

With the adoption of e-Government strategy, an e-readiness study was conducted to determine the and into the efficacy of m-Government. It will therefore be most beneficial to determine the m-Government readiness before deploying such services.

7.5 Closing Remarks

This study tried to answer the primary question, **“how can m-Government as an approach be used to improve service delivery at the Municipality of Swakopmund in Namibia?”**

The revolution of mobile technology has affected the provision of services in the public and private sectors in unfathomable ways worldwide. It is evident that m-Government is inevitable and that it is complementing existing e-Government efforts by adding value to it. Decision-makers at the Municipality of Swakopmund are therefore challenged to embrace ICT as a crucial enabler to create a knowledge-based society, as envisaged in the NDP5. This requires the widespread availability and accessibility of communications and technology networks and services on mobile platforms. It is evident from the findings of this study, that digital technology promotes inclusion and efficiency; it has the ability to overcome impediments such as participation, by providing citizens with real time data and feedback. Digital advancements also provide governments the opportunity to broaden public involvement and engagement.

The Municipality of Swakopmund has the necessary infrastructure in terms of Wi-Fi and access to the Internet to make this advancement. Staff members occupying middle management and top management positions are equipped with mobile devices to be more available to the public. In addition, the municipality also drafted a computer policy, which contains basic principles and user activities allowed on the Internet. Furthermore, a webpage with relevant information about the institution and various application forms is already established. A Facebook page which also serves as a platform of engagement and information for the community, is available, and managed by the marketing section of the Municipality. These platforms already offer room for digital advancement and are therefore entry points for the Municipality to make the necessary transformation towards initiatives available through mobile technologies.

It is evident that challenges in service delivery are prominent in Namibian local authorities, and the Municipality of Swakopmund is no exception. All the same, local government remains at the heart of public service delivery and thus municipalities are duty-bound to provide efficient and effective services to its citizenry under all circumstances. The municipality therefore needs to recognise the potential offered through mobile technologies and the digital dividends it brings. It should put its weight behind this method of governance to improve services.

This study has thus provided useful insight into the implementation of mobile government at the Municipality of Swakopmund and it is hoped that it will enlighten other municipalities in Namibia to also explore alternative methods of service delivery through the utilisation of mobile technology.

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ANNEXURES

ANNEXURE A



MUNICIPALITY OF SWAKOPMUND

Ref No: B 1/1/12

Enquiries: A Swart

(064) 4104100
0886519124
53 Swakopmund
NAMIBIA
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aswart@swkmun.com.na

6 April 2017

Ms MF Uwites (Palmer)
P O Box 4168
Vineta
SWAKOPMUND

Dear Madam,

**REQUEST FOR PERMISSION TO CONDUCT RESEARCH: EXPLORING
ALTERNATIVE METHODS OF SERVICE DELIVERY THROUGH MOBILE
GOVERNANCE AT THE SWAKOPMUND MUNICIPALITY**

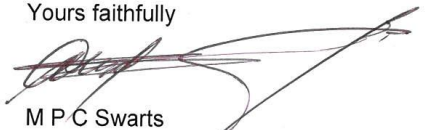
I acknowledge receipt of your letter dated 5 April 2017 with regard to the subject matter.

You are hereby informed that your request to conduct research on alternative methods of service delivery through mobile governance at the Swakopmund Municipality has been approved.

Furthermore, you are requested to present the findings of your study to the Municipality as the information collected may deem useful in enhancing service delivery.

We wish you all the best in your studies.

Yours faithfully



M P C Swarts
ACTING CHIEF EXECUTIVE OFFICER

All correspondence must be addressed to the **Chief Executive Officer**

ANNEXURE B

SEMI-STRUCTURED INTERVIEW QUESTIONS GUIDELINE

EXPLORING ALTERNATIVE METHODS OF SERVICE DELIVERY THROUGH MOBILE GOVERNANCE AT THE SWAKOPMUND MUNICIPALITY

- (a) What are the governance mechanisms and processes that the municipality undertakes?

- (b) One of the missions of the Swakopmund Municipality is “to accept a high degree of open communication and a participative management style”. Which activities are earmarked by the Municipality to realise this particular mission?

- Public consultation Meetings
- Ward Committees
- Awareness campaigns
- Satellite offices
- Online Services
- Other (Please Specify)

- (c) How would you define mobile governance?

- (d) Cellular mobile service to you is:

	Agree	Strongly Agree	Not Sure	Disagree	Strongly Disagree
Useful					
Essential					
Personal					
A Status Symbol					
Other (please specify)					

- (e) On a scale of 1-5, with 1 being very cheap and 5 being very expensive. Do you find mobile services in Namibia cheap or expensive:

	1	2	3	4	5
Cheap					
Not so cheap					
Affordable					
Expensive					
Very Expensive					

- (f) Using a scale of 1-5 what type of public services would you prefer on mobile platforms:

	1	2	3	4	5
Marketing					
Sales					
Adverts					

Bill Payments					
Applications					
Frequently asked questions					

(g) What challenges currently faced by the municipality can be addressed by mobile services:

- Enquiries
- Long lines at pay point
- Access to accurate and reliable information
- Effective and efficient Responsiveness
- Transparency
- Other (Please Specify)

(h) On a scale of 1-5, with 1 being very poor and 5 being excellent, How reliable is mobile services to you:

	1	2	3	4	5
Very Poor					
Poor					
Good					
Very Good					
Excellent					

(i) On a scale of 1-5, Please rate how important these reasons are for you to consider using mobile services:

	1	2	3	4	5
Faster and reliable interaction					
Accessible 24Hours					
Safe and Secure					
Easy to use					
Cost effective					
Reliable and Accurate					

(j) To establish the adoption of mobile technologies in your organisation please indicate which of the following existing technologies have been deployed in your department:

- Corporate SMS
- Laptop Computer
- Wi-Fi Hotspots
- Mobile Business Portal access
- Communication enabled Applications
- Location Based Technologies
- Other (Please specify)

(k) In what ways can the Municipality invest in mobile technology to improve governance mechanisms and processes within the municipality?

- Municipality Information App
- Self Service Kiosks
- Public Information Terminals

- Communication enabled Apps
 - Electronic billing
 - Electronic help
 - Online applications
 - Other (Please Specify)
-

(l) The MICT have proposed new legislation regarding access to information, social media and communication aimed at encouraging the public to take part in decision making processes and to improve accountability and good governance. Does the Municipality have any plan, policy or strategy for mobile or any electronic services in the future?
Yes/No (Please explain)

(m) Do you agree with the following statement: “Mobile services promote accountability and good governance”

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

(n) What are the challenges you foresee if the Municipality adopts mobile services:

- Network Problems
 - Language Barriers
 - Security Issues
 - Lack of Skilled staff
 - Lack of existing policies
 - Inappropriate content
 - Digital Divide
 - Other (Please specify)
-

(o) Do you think these challenges can be addressed? Please motivate your answer

(p) Do you consider the Municipality ready for implementation of mobile and electronic services to the public

Definitely Ready	
Somewhat Ready	
Not Ready at all	
Not sure	

**FOCUS GROUP INTERVIEW FOR MIDDLE MANAGEMENT
OF SWAKOPMUND MUNICIPALITY**

***EXPLORING ALTERNATIVE METHODS OF SERVICE DELIVERY THROUGH
MOBILE GOVERNANCE AT THE SWAKOPMUND MUNICIPALITY***

Date of interview: _____

Time of interview: _____

Name of interviewer: _____

Instructions to read before the interview is conducted

- There is no right or wrong answers but your personal opinion is sought
- For confidentiality and anonymity purposes your name is not required
- The purpose of this interview is to fulfil the requirements of a Master's degree in Public Administration at the University of Stellenbosch
- Participation in this study is entirely your choice
- The information provided may assist the Municipality of Swakopmund to improve service delivery
- The findings of this study will be made available to you upon request

For more information, clarity and enquiries, please contact If you have any questions or concerns about the research, please feel free to contact the researcher Ms M Uwites at +264 813721704 or +264 64 4104603 or email mchllpalmer@yahoo.com and/or the Supervisor Professor Pregala Pillay, University of Stellenbosch, School of Public Leadership: Van der Horst Building, Bellville Park Campus, Bellville (+27 21) 918 – 4341 or email Pregala.Pillay@spl.sun.ac.za.

Consent signed _____ at the Municipality of Swakopmund on this _____
day of _____ 2018

(the signature is optional, some respondents may prefer to give a verbal consent)

Thank you for taking part in this study



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CONSENT TO PARTICIPATE IN RESEARCH

Title of research project	: EXPLORING ALTERNATIVE METHODS OF SERVICE DELIVERY THROUGH MOBILE GOVERNANCE AT THE SWAKOPMUND MUNICIPALITY
Researcher	: Mrs. MF Uwites
Research supervisor	: Prof. Pregala Pillay
Department	: University of Stellenbosch School of Public Leadership
Qualification	: Master's in Public Administration

You were selected as a possible participant in this study because of your key role in the formation and development of an effective and efficient, cost-effective and accountable administration in accordance with all applicable legislation.

1. Purpose and benefits of the study

This exploratory study intends to consider the potential of mobile governance to transform public service delivery at the Municipality of Swakopmund and Namibia. The study intends to provide reliable and credible evidence about the opportunities offered by mobile technology, to inform decision makers to be in a position to formulate adequate policies and make informed decisions on how to inclusion of mobile governance for the improvement of service delivery.

2. Procedures

Should you volunteer to participate in this study, we would request the following from you:

1. Written consent that you have voluntary agreed to participate in the study
2. Permission to be recorded
3. Permission to take notes
4. Answer interview questions provided by the researcher

The interview is expected to take up to 30 minutes of your time. A suitable venue such as office space or a public venue as preferred by you will be agreed upon before the interview.

3. Potential risks and discomforts

Your involvement in the study is voluntary and as such you may at any point choose to withdraw from the research. The answers to your questions will be provided to you for confirmation of what was conveyed by you during the interview session.

No personal or emotionally loaded questions will be asked and if there are any questions which you prefer not to answer, you are not obliged to do so however it will be helpful if you can refer me to an alternative person which you consider more appropriate to respond to certain questions.

4. Confidentiality and protection of participants

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law. Confidentiality will be maintained by means of an ethical clearance protocol and all data collected will be treated anonymously.

The information collected will be used strictly for academic purposes and information to enable Council to make informed decisions.

5. Payment for participation

There will be no remuneration available for participants however compensation in the study will clearly make a positive contribution to the Community and country.

6. Participation and withdrawal

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you do not want to answer and still remain in the study. The investigator may withdraw you from this research if circumstances arise which warrant doing so.

7. Contact detail

If you have any questions or concerns about the research, please feel free to contact the researcher Ms M Uwites at +264 813721704 or +264 64 4104603 or email mchllpalmer@yahoo.com and/or the Supervisor Professor Pregala Pillay, University of Stellenbosch, School of Public Leadership: Van der Horst Building, Bellville Park Campus, Bellville (+27 21) 918 – 4341 or email Pregala.Pillay@spl.sun.ac.za

8. Rights of research subjects

Should you decide to withdraw your consent at any time and discontinue participation, you do this without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have questions regarding your rights as a research subject, contact Ms Maléne Fouché [mfouche@sun.ac.za; 021 808 4622] at the University of Stellenbosch Division for Research Development.

DECLARATION AND SIGNATURE OF RESEARCH SUBJECT

The information above was explained to me by [*name of relevant person*] in clear terms. I was given the opportunity to ask questions and these questions were answered to *my* satisfaction.

I hereby consent voluntarily to participate in this study. I have been given a copy of this form.

Name of subject or participant:

Signature: **Date:**

DECLARATION AND SIGNATURE OF RESEARCHER

I declare that I explained the information provided in this document to _____ [*name of the subject/participant*]. [*He/she*] was encouraged, and given ample time, to ask me any questions.

Signature: **Date:**



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INFORMATION SHEET FOR PARTICIPANTS

Dear Participant

My name is **Michelle Uwites**, a Masters Student studying at the University of Stellenbosch, and I would like to invite you to participate in a research project entitled: **EXPLORING ALTERNATIVE METHODS OF SERVICE DELIVERY THROUGH MOBILE GOVERNANCE AT THE SWAKOPMUND MUNICIPALITY**.

You were selected as a possible participant in this study because of your key role in the formation and development of an effective and efficient, cost-effective and accountable administration in accordance with all applicable legislation within the Municipality of Swakopmund.

9. Purpose and benefits of the study

This exploratory study intends to consider the potential of mobile governance to transform public service delivery at the Municipality of Swakopmund and Namibia. The study intends to provide reliable and credible evidence about the opportunities offered by mobile technology, to inform decision makers to be in a position to formulate adequate policies and make informed decisions on how to inclusion of mobile governance for the improvement of service delivery.

10. Procedures

Should you volunteer to participate in this study, we would request the following from you:

5. Written consent that you have voluntarily agreed to participate in the study
6. Permission to be recorded
7. Permission to take notes
8. Answer interview questions provided by the researcher

The interview is expected to take up to 20 minutes of your time. A suitable venue such as office space or a public venue as preferred by you will be agreed upon before the interview.

11. Potential risks and discomforts

Your involvement in the study is voluntary and as such you may at any point choose to withdraw from the research. The answers to your questions will be provided to you for confirmation of what was conveyed by you during the interview session.

No personal or emotionally loaded questions will be asked and if there are any questions which you prefer not to answer, you are not obliged to do so however it will be helpful if you can refer me to an alternative person which you consider more appropriate to respond to certain questions.

12. Confidentiality and protection of participants

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law. Confidentiality will be maintained by means of an ethical clearance protocol and all data collected will be treated anonymously.

The information collected will be used strictly for academic purposes and information to enable Council to make informed decisions.

13. Payment for participation

There will be no remuneration available for participants however compensation in the study will clearly make a positive contribution to the Community and country.

14. Participation and withdrawal

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you do not want to answer and still remain in the study. The investigator may withdraw you from this research if circumstances arise which warrant doing so.

15. Contact detail

If you have any questions or concerns about the research, please feel free to contact the researcher **Ms M Uwites** at +264 813721704 or +264 64 4104603 or email mchllpalmer@yahoo.com and/or the Supervisor **Professor Pregala Pillay**, University of Stellenbosch, School of Public Leadership: Van der Horst Building, Bellville Park Campus, Bellville (+27 21) 918 – 4341 or email Pregala.Pillay@spl.sun.ac.za.

16. Rights of research subjects

Should you decide to withdraw your consent at any time and discontinue participation, you do this without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have questions regarding your rights as a research subject, contact Ms Maléne Fouché [mfouche@sun.ac.za; 021 808 4622] at the University of Stellenbosch Division for Research Development.