UNIVERSITY OF KWAZULU-NATAL

ICT readiness of the municipality to promote LED to the community of Mandeni in KwaZulu-Natal

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DECLARATION

……..

I……declare that

(i) The research reported in this dissertation, except where otherwise indicated is my original research.

(ii) This dissertation has not been submitted for any degree or examination at any other learning institution.

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Abstract

The current study is based on the experiences of the local municipalities in implementing local economic development. The case study is related to Mandeni municipality which is located in the province of KwaZulu-Natal. The study is predicated on the notion that the increased availability and accessibility of information and communication technology (ICT) holds an increased potential to place municipalities at a higher level where they are mostly to promote their local economic development activities. However, this has not been the case in Mandeni Local Municipality. The main aim of the study is to investigate factors that prevent the ICT readiness of the Mandeni Local Municipality so as to promote local economic development. A qualitative methodology predicated on the phenomenological approach was chosen for this study in order to gather information from participants with regards to the perceived challenges. The study adopted purposive sampling in order to select a sample of the senior management of the municipality to take part in the study. An interview guide was used for data collection. A thematic data analysis was conducted where emerging themes were grouped together and then analyzed. The study revealed that non-alignment of relevant legislative frameworks with the municipality's integrated development plan (IDP) was one of the factors which are undermining developmental efforts in this municipality. It further revealed that critical skills were not optimally used as a result of disjointed business processes. The study also found that the municipality did not efficiently allocate resources for effective delivery. In addition, the study established that there was a general lack of responsibility by those who should be playing monitoring role. In view of the mentioned challenges the following recommendations are made: (i) the integration of ICT as a mainstream function and integral part of the municipality activities. (ii) To review municipal policies and business processes in order to set clear objectives of the role of ICT in the IDP. (iii) To ensure strategic collaboration with stakeholders who have resources and explore Private Public Partnership mechanisms on ICT projects. (iv)A focused training is proposed for councillors on ICT solutions. (v) A business reengineering and change management is needed focused to management team as well as the workshops and awareness to the larger community for their role and participation on LED issues.

ACRONYMS

FDI- Foreign Direct Investment

ICASA- Independent Communication Authority of South Africa

ICT- Information and Communication Technology

ICTD- Information and Communication Technology for Development

IDP- Integrated Development Plan

IS- Information Society

LED -Local Economic Development

MFMA- Municipal Finance Management Act No.56 of 2003

MLM - Mandeni Local Municipality

MSA- Municipal Systems Act No. 32 of 2000

MSCOA -municipal Standard Chart of Accounts

PGDS -Provincial Growth and Development Strategy

PPP- Public Private Partnership

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CHAPTER ONE:

General Introduction

1.1 Introduction

The contemporary world is constantly changing and evolving to become a global village through technology. The survival of organizations will, in the near future, be mainly dependent on these technologies. At countries' level, the ability to sustain economies that will support citizens is largely dependent on technology. In order to have sustained impact on citizens, resources focusing on technology readiness should be directed to local spheres of government. Local government as its primary goal is to promote local economic development. Investment on ICT will ensure a bottom up approach to sustainability as indeed "more and more people are becoming involved in an Information Society (IS)" (Heeks, 2002, p.102). With the available resources, municipalities must put the right strategy to grow the local economies facilitated by technology.

Studies on factors that affect ICT readiness in promoting local economic development have not been done directed to Mandeni or adjacent areas. The studies exist for metro municipalities such as EThekwini Municipal Area (EMA) (Averweg & Erwin, 2011, p. 89). The study is concerned with the analysing the distance covered by Ethekwini Municipality in embracing the concept of smart sustainable cities (SSC). This concept by definition, is the city that meets the needs of its present inhabitants without compromising the future generations to meet their needs and does not exceed local environmental limitations where all this is supported by ICT (Höjer & Wangel, 2011, p. 43). Remarkably such studies could not be found for Mandeni. This is one of the motivations why the researcher chooses to do the study. The study has a potential in the area to emancipate local people to be on par with

those from big cities on ICT. The due diligent on ICT readiness is the primary objective to level the ground for LED promotion in Mandeni.

This chapter introduces the study as a whole by providing a brief background of what an information society involves. The chapter presents the motivation for the study. This is followed by the background of the research study which outlines the backlog on information and communication technology (ICT) globally and Mandeni in particular. A discussion of this backlog leads to the problem statement section. The chapter also outlines the research study objectives, research questions and introduces the methodology used in the study.

The literature is reviewed in chapter two. This chapter is important because it provides the theoretical framework on the study. This assists to map the relationship on ICT readiness and the promotion of LED by analyzing factors that affect ICT readiness.

The research methodology is covered by chapter three. The chapter unpacks the research paradigm, design and methods that put together instruments for data collection. The description of data analysis and the researcher's behavior in all stages of the study is also detailed under that section. Reliability and validity of data and collection processes are key to the credible finding identification. This is all aimed at arriving at credible feedback from the created themes on actual performance of data collection being covered in chapter four.

The work covered by these chapters culminates in the presentation of findings for the study in chapter five. This was also done following the themes identified in the study. The study is concluded by chapters six. This chapter looked into the implications of the research and finalise by presenting the recommendations.

1.2 Motivation for the study

The current study was motivated by the continuous problems and the continued service delivery protests that characterize the Mandeni municipality. The research focusing on municipalities is very important particularly in a country like South Africa which is faced

with a high level of unemployment, estimated at 27.7 percent (Statistics South Africa, Q1, 2017). Service delivery concerns are always an outcry that is leading to the dissatisfaction of communities often resulting to protests that even result to a threat to national security. The ICT readiness of the municipality, if it is properly implemented, must expose the source and nature of the problem so to guide the policy development (Averweg & Erwin, 2011, p. 66).

The importance of this study at the level of the local sphere of government is to cover the gap of inadequate literature that is earmarked for municipalities, at least small and rural. Thus, this study can be used as the benchmark by other municipalities of similar size in the country. It is the researcher's considered view that the study will improve the implementation of the people first principles (Batho Phele).

1.3 Background for the study

Information Society is defined as the new social order in which creation, storage and flow of networked information plays the central role in economic, political and cultural transformation and development (Laszlo, 2007, p. 10).

While most regions are joining the information society it is disturbing that the digital divide is growing between urban and rural communities. Other continents have become superpowers due to their technological advancement and progressive mindset relating to information communication technology. Developed countries are often associated with an information society. In order to evolve to an information society level, three stages are critical. Firstly, the readiness of ICT serves to measure the level of infrastructure and its overall accessibility. Secondly is the use of ICT supported by the skills availability. Thirdly is the ICT impact towards sustainable development (ITU Report, 2016, p. 3). ICT Development Index (IDI) includes 11 indicators is used to measure the information society in 167 countries of the world. Within the scoring range of 0 to 10 the average for all

countries was 5.03 for the first time in 2015, Chad being the lowest at 1.17 and the Republic of Korea heading the chart at 8.92. The chart in its essence highlight the disparity between developed, developing and third world countries with developed countries located amongst the highest scores. But what keeps such developed countries scoring highly is the early adoption of new technologies that are trending which includes improved capabilities and quality of networks and devices, particularly on bandwidth and speed of connectivity, the use of smartphones and tablets, social media services, cloud computing, big data analysis, the Internet of Things (IoT) and machine-to-machine (M2M) communications.

In Africa the digital divide is still by far the highest in the world and between men and women (Aker & Mbiti, 2010, p. 209). This is the continent that shows the lowest IDI performance levels at an average of 2.53. South Africa is ranked third in Africa in terms of technological advancement after Mauritius and Seychelles with IDI performance level of 4.90. However, South Africa is following the same trend as the rest of Africa where electricity infrastructure is uneven or non-existent in some parts of the country whilst more than 75% of fixed line telephones are clustered in urban places. The low level of skills is as a result of inferior education and literacy which adds to the problems of ICT readiness and usage. Adding to this problem is an access to ICT hardware whereby most of it is coming from abroad with an unreasonable prices and inflated duties resulting in ICT being perceived as luxury items.

The use of mobile phones and the increased creation of mobile networks reduce the plight in South Africa and in the continent to a degree. Tremendous effort has been observed towards the achievement of the 2030 Agenda for Sustainable Development Goals.

The ICT usage in South Africa stems largely from fixed telephone line, mobile cellular, fixed broadband and mobile broadband. The level of usage of these is determined by the accessibility of these mediums and knowledge to use the technology. The cost of infrastructure is the biggest driver for accessibility and the level of literacy is the biggest driver for ICT knowledge.

It is not surprising to find that mobile cellular has overtaken traditional fixed line telephone usage. Economies of scale and the ease to understand how to use cellular phone gadgets make it the most affordable method to communicate. Although cellular phone also has coverages in rural communities, the cost of mobile usage per unit is still relatively expensive (R0.10 to R0.20/ minute). This is however far cheaper than the fixed telephone line.

Observing the charts, South Africa is leading in Africa on International bandwidth (24.3% outgoing Kbps) and in dial-up subscribers (53.25% of all countries of the continent) which is an indicator of internet usage. South Africa presents the posture of readiness. However, this posture has got to be equal to task to support the ICT demand of the country. Structures have been put up to support the use of ICT and free information flow since South Africa embraced the democratic processes. E-governance is one such means to an end.

Ample evidence exists that at least mobile phone fosters wide ranging changes in the lives of African people (Pigato, 2001, p.1). Infrastructure development is linked to ICT projects. This dilemma is at the center of this dissertation. Will the generally agreed evidence of ICT readiness in the country also be applicable to Mandeni community to address the LED (ITU Report, 2016, p. 3)? This is the key finding to be revealed in this study.

1.4 Focus of the study

The municipality of Mandeni is a local municipality demarcated within the ILembe District municipality in the KwaZulu-Natal province. It is located along the coast, an almost half way distance between EThekwini Metro and UMhlathuze municipality. Similar to other municipalities in the country it is faced with poverty, unemployment and many other social ills. These are the challenges to the municipality's governance structure. The municipality of Mandeni should be able to overcome these challenges using ICT. There is a need to evaluate the level of readiness on ICT to determine its ability to address these problems.

Among questions to ask are the following: (i) What are factors that affect the ICT readiness to promote LED in Mandeni Municipality? (ii)To what degree is the management have the capability in dealing with the problem? (iii) Are the resources enough for ICT readiness to intervene on the challenges? (iv) Is the community prepared to adapt to new ways of doing business as a precursor to 4th industrial revolution? These are wide-ranging questions this study is trying to response to and a precursor to the next section in profiling the problem.

1.5 Problem Statement

The last and third level of Information Society is the impact on economic development. This level is the highlight of the Local Economic Development (LED) as it is known today (Laszlo, 2007, p. 10). To stimulate growth in the economy government spending is necessary. However, the spending must support sustainable development. In spending, governments have certain priorities. One such priority is basic service delivery. In South Africa, to support transformation, three spheres of government were established in serving the interest of its citizens. Local government as a sphere of government is at the cold face of service delivery. Local government is faced with a dilemma at this stage in prioritizing spending. Should they spend on basic service delivery or to spend on sustainable development projects? These projects are associated with the third wave of economic development (e.g., public–private partnerships, technology transfers, infrastructure development, and education) (Hanley and Douglass, 2014, p. 220). The developed countries used these strategies to emerge from eminent poverty that is currently engulfing developing and third world countries many of which are in Africa.

The environment at which the municipality of Mandeni is situated is surrounded by a perceived fairly stable ICT infrastructure. If ICT environment is ready and is the key enabler to economic development, the question is, why then the benefits of the municipality's LED are not being realized? This may demonstrate unwillingness and the appetite by the municipality to tap into the ICT infrastructure that is readily available for

use or otherwise a possible lack of capacity. This threatens the governance of the municipality. This may also be linked to the credibility of the ICT readiness.

Municipalities are expected to have an alignment of their IDPs and the National development plan as well as the Provincial Growth and Development Strategy (PGDS). This alignment should have the ability to support the local economies rather than a top-down approach implementation.

1.6 Justification of the Study

The motivating factors of the study are the benefits that can be enjoyed should the municipality be ready with ICT. The main benefit is the alignment of policy development to ensure community participation in the affairs of local economic development. There will be greater influence to redirect resources towards the programs that improves livelihood. Better skilled municipal workers on ICT are better prepared and ready to facilitate the promotion of LED. Councilors as the key stakeholder will perform better oversight. Municipalities in the country will have a benchmark on ICT readiness. The study will make a unique contribution in this disciple by changing the mind set of everybody involved that municipalities are drivers of development beyond services delivery imperatives.

National treasury has proposed changes in this sphere of local government in as far as reporting and compliance through budget reform regulations. The research also reveals whether the Mandeni Local Municipality (MLM) meets the test in its ICT readiness to accommodate these changes. These reforms demand that municipalities must shift to enterprise resource planning (ERP) platforms. This development will be interesting in observing the synergy of the integrated development plan (IDP) with the local economic development (LED) using ERP as part of ICT strategy.

The benefit from the study will also immensely accrue to adjacent municipalities since they are undergoing the similar kind of challenges facing Mandeni Local Municipality in terms

of ICT readiness. Other spheres of government and departments will also benefit from the study by getting tips on how to improve the monitoring of programs and projects on E-government.

1.7 Research Questions

The major research questions are:

(i) What legislation and policy frameworks at a municipal level are applicable to ICT readiness and LED?

(ii) Are the resources optimally used to promote LED in Mandeni municipality?

(iii) What recommendations are being proposed?

1.8 Research Objectives

The primary objective of this research is to investigate the factors that affect the ICT readiness to promote LED in Mandeni.

The secondary objectives of this research are as follows:

(i) To explore the legislative applicability to the promotion of ICT readiness for development;

(ii) To investigate how resources can assist in promoting LED to Mandeni municipality; and

(iii) To provide recommendations for ICT readiness to promote LED as proposal to the decision makers.

1.9 Research Methodology

Qualitative research methods were used to reveal the scope of the problem. Since the approach was to define, analyze and describe the role of key stakeholders in the research, the qualitative method is most suitable since it deals with the behavior of humans (Bayat,2007:67).

Through qualitative research methods an in-depth interview, using an interview guide, was used following a general process of planning the interview, developing instruments, collecting data, analyze and presenting the findings (Creswell & Clark, 2007)

An interview guide with open-ended questions was generated. Its crafting was such that the researcher gains interaction and confidence with the interviewee. As a result, the researcher is ensuring the capturing of the subjective and emotions of the participant. A thematic analysis technique was adopted to analyze data collected.

A purposive sampling with non-probability sampling is used to draw participants from the municipal employees targeting those with a particular knowledge and skills at senior level management which is critical for the research. Respondents to be interviewed were carefully selected. Eight senior management employees are chosen to ensure reliability and trustworthy information.

1.10 Contributions of the Study

As the contribution, it is expected that the study will identify the underlying factors that lead to the failure to realize the local economic development in Mandeni through ICT. It is also anticipated that the study will show the correlation between ICT readiness as an enabler for service delivery and LED promotion to improve the standard of living of the

community. This will change the perception by governance structures when adopting policies meant to influence service delivery. It is expected that the prioritization of the resources will be looked into with different light. A synergy must exist between the IDP and LED. In fact, the LED must take the centre stage in the formulation of the IDP. The study will also augment the literature that is prevailing and the body of knowledge. Also, the findings of the study, since they are empirically obtained, can be replicated to other municipalities of equivalent grade and nature.

1.11 Limitations of the Study

The study focuses on the administration of the Mandeni Municipality since the policies and strategies are crafted and implemented at this level of governance. The Mandeni Local Municipality is chosen because it is the most neglected area in terms of research, and also that, for the past few years, it has been experiencing service delivery challenges. Due to its size, the municipality has got limited number of senior managers. For the purposes of the study up to eight members of senior level management were invited for an in-depth interview. This has got an impact on the study such that the interviewees might be biased towards themselves to avoid claims of incompetency.

1.12 Outline of Chapters

This study is divided into six chapters. The first chapter sets the scene for the study. It includes the introduction to the study topic and a broad background to the study to the study. It presents the problem statement, study objectives, the research methods and the contributions to the body of knowledge.

The literature review is engaged in chapter two of the study. This is where the researcher deals with the theoretical framework to reflect on ICT readiness, LED and their relationship. The chapter firstly focuses on the emergence of Local Economic Development (LED), its definition, the role it has played in the past and its relevance to underdeveloped and developing countries. The chapter then focuses on ICT conceptualization, role and its disruptive nature. It then gives an assessment of ICT readiness to support development. Legislative framework is discussed as well as the capacity in the municipality to effectively deliver LED. The relationship is drawn to reflect the dependency of LED on ICT. The ICT impact is reflected upon in general to all spheres of government and the role it has on the surrounding key stakeholders of municipalities.

Chapter three unpacks the methodology used in the research. The chapter deals with the research design, methodology, data collection and analysis techniques, and reliability and validity. It closes with ethical considerations.

Findings of the study are discussed in chapter four. Presentations of the researcher's findings assessment are discussed in chapter five. Chapter six concludes the study by presenting the implications of the study, recommendations of the study to solve problem, recommendations for future studies and limitation of the study.

1.13 Chapter Summary

This chapter set the scene and context of the study in general. The chapter provided a general introduction and background to the study and also outlined the problem statement; objectives of the study and research questions; the rationale of the study; the research methodology; the limitations of the study as well as the research outline. The chapters of the study follow the sequence shown in section 1.12 on the structure of the dissertation.

Chapter Two reviews the literature that is related to the study.

CHAPTER TWO

Literature Review

2.1 Introduction

This chapter presents the literature that is related to the study. The chapter highlights in broad terms the ICT readiness, its importance, challenges and its role in general as an independent variable in this study. This is followed by a brief description and the nature of the local economic development as a dependent variable. The chapter then maps a relationship that exists between ICT readiness and LED. A theoretical framework as a road map forms a skeleton to explain the origin of the study as it identifies gaps in the body of knowledge. Lastly a summary will be developed on the importance of this study.

2.2 ICT readiness

Increasing levels of ICT readiness being achieved are being praised since they are regarded as the critical success factor in achieving the digital economy, hence promoting LED. ICT readiness is characterized by the factors that include ICT infrastructure, hardware, software and human resource (Chanyagorn & Kungwannarongkun, 2011: p. 99). As observed by Chanyagorn et al. (2011), there are assessment tools to measure the success of ICT readiness.

What is noticeable with these factors is that they are internally focused. There is a need to ensure more inclusive approaches that involve wider stakeholders for a complete ICT readiness. In the municipal environment, the community plays a big role. Therefore, factors, as proposed by Gichoya (2005, p. 182), further include financial resources,

attitudes, collaboration and strategy (legislation and policies). Therefore, relevant to the study, the factors are as follows:

(i) Applicable legislation: as a supporting structure for ICT readiness, laws and regulations need to be aligned with the municipality's vision.
(ii) Infrastructure and resources capacity: physical assets including networks, internet, gadgets, hardware and software.
(iii) Capability: Human resources, skills, knowledge, and attitude.

Before a theoretical framework is detailed, it is important to put the ICT readiness into perspective within the broader framework of ICT. This is the purpose for the next section.

2.2.1 ICT readiness in context

Since ICT is growing with time and in space, it is important to check the distance covered if it is still giving the same meaning in order to give direction for future relevancy. As a concept ICT has its roots and a direct link to technology that was broadly defined as knowledge by Mokyr (Lechman, 2015, p. 29). It then carries the implication that it is an accumulation of human thoughts, and serves as a tool to share that knowledge among individuals. In defining ICT from World Bank perspective, it is a combination of hardware, software, networks and media for the collection, storage, processing, transmitting and presentation of information. In the contemporary world, ICT encompasses all electronic technologies that facilitate the flow of information and knowledge. Therefore, ICT provides unlimited opportunities for delivering information and networking with other people hence, constitute a virtual market place to buy and sell goods and services (Kiiski & Pohjola, 2002, p. 304). This description of ICT has an emphasis on the role that it has to support socio-economic activities. ICT has therefore an impact in people's lives. Thus, it is the paradigm of functionalities, applicability and usability.

ICT is henceforth classified as General-Purpose Technologies (GPT) as was proposed by Bresnahan and Trajtenberg (Lechman, 2015, p. 32). The three characteristics of GPT are pervasiveness, technological dynamism and innovation spawning. The reason for classifying ICT as GPT is the notion that GPT plays an important role in economic growth (Helpman & Trejtenberg 1996, p. 86).

2.2.2 ICT Readiness: Theoretical Framework

The focus of the study is to investigate the ICT readiness factors that affect the promotion of LED in Mandeni area.

The extent of success or failure of ICT interventions to support development depends on how managers conceptualize ICT readiness and development (Sean & Harindranath, 2007, p.15). The ICT Readiness framework was used to guide understanding in this study. The framework assisted in aligning and reinforcing the research title with its objectives. These objectives were concerned with the involvement of communities within the municipality on issues of LED promotion, the ICT readiness of the municipality against the national readiness standard, the attitude of staff, ICT capacity of the municipality and the inefficiencies in governance structures to play their meaningful role.

This study will adopt the framework that was developed by Sean et al., (2007) which identify three different conceptualization of ICT readiness that includes: the use of ICT, how ICT is viewed and the impact ICT has to development. The theoretical framework was used as depicted with the diagram below:

The figure 1 shows the dependency of LED on the ICT readiness of the municipality. In turn the ICT readiness is greatly affected firstly, by the ability to align the municipal processes with the legislation that is applicable to municipalities. Policies that must be developed should aim at supporting and complying with current laws and regulations in

the municipal environment. The ICT charter should lead the way in spelling out clearly how the ICT environment must be treated. This includes the form and nature of participation of the communities. Clear roles and responsibilities must be detailed to ensure an oversight role and monitoring of ICT functions.

Secondly, the ICT readiness is affected by nature and kind of resources available to the municipality. Network infrastructure at the disposal of the municipality includes access to broadband and internet connectivity, pervasive ICT gadget, ability to use and ownership of mobile phones. Funding of ICT units adequately goes a long way to support ICT programmes.

Third, is the component that makes all this gel. The human resource that is given the task to implement ICT successfully is crucial. The skills must be available to those employees entrusted with the task. These employees must be provided with training and support in order to improve their capacity. The communities must be encouraged to participate in ICT programmes of the municipality by engaging awareness campaigns. At the centre of this factor is the attitude of managers that must ensure the achievement of municipal vision. Collaboration among key stakeholders is the key to consolidate resources.

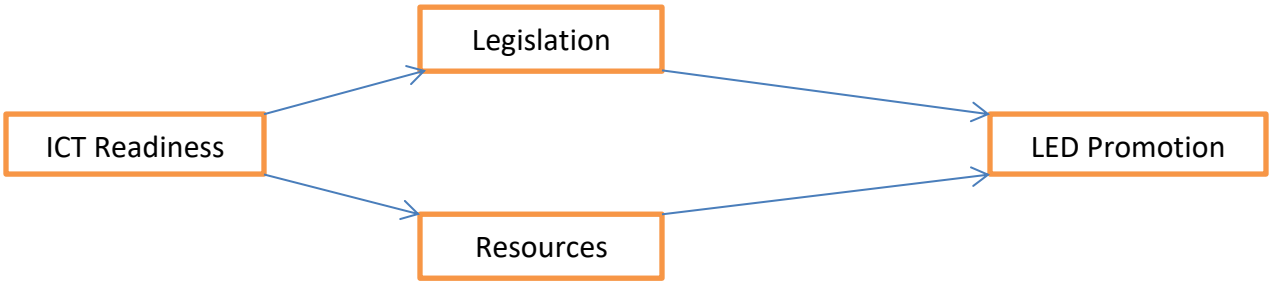

Figure 1: Theoretical Framework Diagram

Source: Compiled by the author

2.2.3 Importance of ICT readiness

A number of tools to measure ICT readiness have been developed. However, these tools are not suitable to measure small to medium organizations. They are good for nations and bigger organizations (Chanyagorn et al. 2011). The expected result for measuring ICT readiness should reflect the capability to adopt, utilize and benefit from ICT implementation as suggested by Azman, Salman, Razak, Hussim and Sidin, (2015, p. 1368). The importance of the ICT readiness is its ability to measure the level of ownership and usage of ICT tools including the satisfaction that is derived from their use. These indicators are the success factors for the digital economy (Azman et al., 2015).

In contextualizing this review, it has been established that ICT readiness continues to improve in South Africa although it has not improved to the level expected by national objective. This is partly due to the limitation of broadband which is still too costly to afford (Evidence for ICT Policy Action, 2012). Although access to mobile phones has increased, broadband remains limited as compared to other nations of the same size worldwide. The emergence of smart phones has seen a surge on mobile phone usage which overtook the fixed lines usage. 42% of the population surveyed stated that fixed lines are not available where they live, and 51.5% stated that they cannot afford one. The intervention of ICASA (Independent Communications Authority of South Africa) to regulate the industry has seen the tariffs decreasing. As a result, more than 86% individual adults have gained internet and ICT access on mobile phones. In addition, the advent of Cell C and Telkom has compelled Vodacom and MTN- the biggest role players in the industry- to reduce the cost, improve products and price offering.

These facts draw a picture that South Africa is still struggling with access to ICT readiness. The lack of use of the disruptive technologies put this country at the back foot for future development. Similarly, Mandeni is not immune to this phenomenon. Enhancing the technologies available would have assisted to connect easily with communities. This is an opportunity missed by municipalities (Monyepao & Weeks, 2012, p. 2778). In order to

have access to the internet, one must have data. The difference no longer exists between the use of data and mobile phone coupled with Short Message Services (SMS). The hardware is still perceived as a luxury. According to South Africa's Census (2011), 64.8% of households in South Africa do not have access to the Internet (Statistics South Africa, 2012). All of these would have helped in communication and systems data integration. This has a direct impact on the research. ICT readiness, thus, represents a key enabler and catalyst for improved service delivery to households, private sector and civil society (Averweg & Erwin, 2011, p. 89). Due to rapid change in ICT generally and ICT readiness, this opens a gap to study the impact these have in promoting LED as well as service delivery.

2.3 ICT capacity of the municipality

In the context of this study and focusing on the study area namely Mandeni Municipality it has been identified that, Mandeni municipality is lowly ranked in terms of ICT participation. The digital divide is high in the area as the municipality is mostly rural. There is no research work that could be found in this field. One can relate the municipal capacity to studies performed in other municipalities and neighboring areas. Studies exist about EMA (eThekwini municipality area) (Averweg, et al., 2011). A study also exists for the district area of Umhlathuze in Richards Bay, emanating from the fact that Government has made so much investment on ICT issues, yet communities are still complaining (Ntetha & Mostert, 2011, p. 77).

2.4 Legislative framework

The Constitution of South Africa, section 152 based on its objectives, allows for the creation of municipalities. To establish these legal creations, the Municipal Structures Act number 117 of 1998 and the Municipal systems Act number 32 of 2000 works together in

defining their roles and responsibilities. The direct objective in its preamble is that this Act must provide core principles, mechanisms and processes that are necessary to enable municipalities to move progressively towards social and economic upliftment of local communities (Municipal Systems Act, no. 32 of 2000). The promulgation of the Municipal Finance Management Act number 56 of 2003 has a far-reaching implication to the administration of municipalities. Through budget regulations and Standard Chart of Accounts for Local Government regulations, ICT plays a pivotal role in ensuring that systems are integrated. This lays a foundation for good environment for LED to take place.

The ICT readiness of the municipality is also dependent on the personnel skills and attitude towards it. The municipality's officials need to be evaluated for skills capacity and the willingness to adapt to changes that come with ICT. The next section unpacks the correlation and the ability of the personnel to deliver on municipal strategies and the intentions of the developmental local government.

2.4.1 MFMA section 83 (Municipal regulations on minimum competency levels)

This section is an intervention through legal framework to ensure that the local government is geared to mount the new evolution of communities and economic development. Well capacitated personnel are better positioned to carry out the aspirations of the local development. In terms of MFMA no.56, of 2003 section 83, the accounting officer, senior managers, the chief financial officer and other financial officials of the municipality must meet the prescribed financial management competency levels.

The municipal regulations on minimum competency levels have produced unit standards to be met that qualify the senior manager in municipalities. These standards include subjects or modules such as municipal budgeting, supply chain management, strategic management and leadership and ethics, project management, IDP and stakeholder engagement, Information and communication technology, business law, financial

management, Risk and change management, policy development and performance. The total credits for these unit standards are equivalent to NQF level 6 at the minimum.

In relation to ICT, these competencies should give enough exposure to senior management to be aware of the ultimate goal of economic development for local communities. These are all external legal frameworks that assist municipalities. The municipalities are however enabled to create their own internal policies to localize their activities and develop systems for better management of resources.

Directly responsible for ICT in the municipality of Mandeni is the ICT charter. This is discussed in the next section.

2.3.3 ICT Charter

The municipality has adopted an ICT charter. It is noticed that the charter is generic and customized for Mandeni. The assumption is that most municipalities have aligned their charters to this generic charter. It stands to reason that the disadvantages experienced in Mandeni municipality are generally the case for other municipalities. Prior to its adoption, a workshop was conducted with all councillors to solicit their support. This is now the document driving all the ICT requirements of the municipality (ICT Governance policy charter: Mandeni Municipality, 2016). The key objectives among others include the following:

(i) Identify, establish and prescribe a uniform Governance of ICT Framework (GICTF) and implementation guideline for the Public Service;
(ii) Embed the Corporate Governance of and Governance of ICT as a subset of Corporate Governance;
(iii) Create business value through ICT enablement by ensuring business and ICT strategic alignment;

(iv) Provide relevant ICT resources, organisational structure, capacity and capability to enable ICT service delivery;
(v) Achieve and monitor ICT service delivery performance and conformance to relevant internal and external policies, frameworks, laws, regulations, standards and practices;
(vi) Implement the governance of ICT in the department, based on the COBIT process framework;
(vii)Position the GITO function as an integral part of Executive Management.

One of the main reasons to discuss the ICT charter is to measure the success of the municipalities in delivering on the objectives of economic development using ICT in local communities. Can it pass the test? Does is provide projects and programmes that are LED oriented? Beside the fact that the municipality is running a low budget, the charter should reflect ambitious goals. Nothing in the charter can be identified with the community projects towards LED emancipation. It is internally focused.

Critical to this research is the introduction of Municipal Standard Chart of Accounts (mSCOA) which is the next point of discussion.

2.4.3 Municipal Regulations on Standard Chart of Accounts

This study was conducted at a time when municipalities were being asked to perform due diligence and readiness for budget reforms in South Africa. The introduction of municipal Standard Chart of Accounts (mSCOA) is a business game changer in municipalities. This is an opportunity to start building internal capacity. The objectives of MSCOA are: (i) to improve data quality and credibility (ii) the achievement of greater level of standardization (iii) the development of uniform data sets critical for government reporting (iv) the alignment of local government accountability cycles including budget, in-year reporting annual financial statements and annual reports (v) the creation of an opportunity to

standardize key business processes (vi) to improve transparency, accountability and governance through uniform recording of transactions at posting level detail (vii) to enable deeper data analysis and sector comparison to improve financial performance (viii) and to standardize accounts classification in order to facilitate financial skills mobility between local government and between local government and other spheres as well as private sector, and to enhance the ability of local government to attract and retain skilled personnel (Municipal budget regulations: Standard Chart of Accounts for Local Government Regulations, 2014). The key success factor in this process is the seamless integration of ICT components. This is aimed at assisting decision makers to obtain better information at a single source thereby create a platform for improved service delivery.

To this effect, the National government has sponsored these initiatives by allocating grants through the Division of Revenue Act which is approved annually by parliament. However, these grants are not enough to face the enormous task at municipal level. In the financial year 2016/2017, the municipality received R1,8 million as Finance Management Grant, R940 000 as Municipal Systems Improvement Grant (Mandeni Municipality: Annual Budget, 2016/2017). Without the contribution by the municipality from its own sources to support these grants, the municipality can only scratch the surface to make an impact on the ICT issues. It is another matter if those efforts are meant to add value towards the achievement of LED goals.

A study using the Livelihood framework needs to be conducted to establish a gap to be attended in the future on ICT issues for Mandeni municipality staff and the general community. The livelihoods framework assumes that groups and individuals use their own livelihood strategies within a context of vulnerability, and it examines information communication technology for development (ICTD) efforts in the context of existing strategies (Plauché, De Waal & Grover, 2010, p. 1).

2.5 ICT for development

2.5.1 Conceptualization

For a complete picture, there is a need to link the role of ICT to the development needs of the nation or province or local government. There is a general understanding that the ICT will bring about economic development, therefore developing countries could leapfrog stages of development and become advanced information societies (Bornman, 2012, p. 278). When discussing ICT, information is conceptualized in economic terms (Madikiza & Bomman, 2007, p. 12). This means that it is a commodity by which the market can determine its price. Clearly, the highest bidder can influence the economy as well as its social behaviour. If ICT is meant for development, it is important that the state intervenes in order to regulate the market. Development is not only about economic growth, but it is also concerned with the standard of living. However, there is a pessimistic view supported by Van Dyk (1999) that ICT can lead to unemployment and increase the gap between the poor and the rich (Bornman, 2012, p. 279).

The growing expectation that ICT will assist African countries to come out of poverty is faced with many challenges (Soriano, 2007, p.15). Over time, this has created an impression that there is no evidence that ICT has got a positive correlation with economic development as suggested by Ngwenyama et al. (2006). Jaffer, Ngámbi & Czerniewicz (2007) continue to mention the challenges facing Africa. On top of the list of challenges is the investment on infrastructure for ICT. This investment is competing with many other socio-economic investments. A word of caution from Ngwenyama et al. (2006) is that it is unwise to disaggregate issues of education and health infrastructure form ICT infrastructure development issues. The other challenge is the acceptance of colonial developmentalism. Developmental funded projects to Africa at times, come pre-packaged with assumptions and solutions leaving no space for local knowledge and expertise.

Mobile phones are the widest used tools where hopes for development are pinned especially in developing countries. In Sub Saharan Africa, 60% of the population have mobile phone coverage (Jenny, Aker & Mbiti, 2010, p. 208). This mode is frustrated by the lack of infrastructure and the cost involved. Key intervention areas where mobile phone may be used to impact on economic development as identified by Mbiti et al, (2010) include (i) improved access to and use of information, improving coordination among agents, thereby increasing market efficiency; (ii) increased communication to improve firms' productive efficiency by allowing better managed supply chains; (iii) Creation of new jobs in response to the demand as a result of mobile related services; (iv) facilitation of communication on emergency and disaster responses; (v) the use of m-developments to facilitate the delivery of financial, agricultural, health, civil and educational services. Internet access is the most favoured tool to have an impact on socio-economic development activities. It is estimated that in Africa only 14.1 % of the continent's world population has got access to internet as at 2006 (Internet World Statistics, 2006). There are great opportunities in Sub-Saharan Africa for the ICT sector to prosper in the form of industrialisation of ICT, growth of business process off shoring sector, leveraging open source software adoption, and encouraging Foreign Direct Investment (FDI) - (ICT Competitiveness in Africa).

All these good stories of ICT for development (ICT4D) in Africa are under scrutiny from its critics. Heeks (2010, p. 626), has posed a fundamental question that seeks to evaluate these contributions. Does ICT contribute to development? His contention is that the developing countries spend so much on ICT gadgets especially mobile phones at the expense of important needs such as education and food. Much of this expenditure will find its way back to developed countries where these multinational companies are owned. Heeks (2006), using the research by Donner and Escobar (2010, p. 64) noted that there is a shortage of research on the implications of mobile phones beyond the increase of their use. Little research is found on the functionalities of mobile phones and their translation into economic impact. However, Heeks (2010) does give guidance to managers of ICT4D

that they must attend to designs that are aligned to local realities; that the governance structure draw on the strength of multiple actors, and that sustainability is in terms of economic and socio-political perspective as depicted by the figure 2 below.

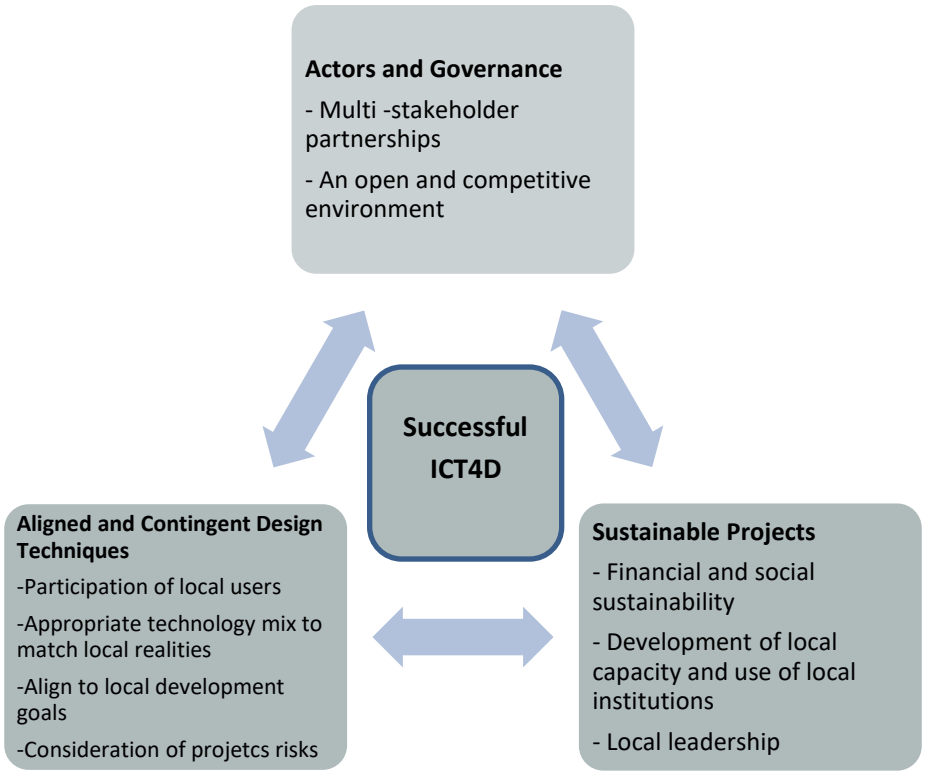

Figure 2: Good Practice for ICT4D 2.0 Implementation (Adapted from Heeks, 2010).

The main emphasis of this diagram is the need to ensure that in developing an ICT tool, a wide consultation must be undertaken, especially those tools that are engaged in its development and implementation. Close partnerships are promoted. The tool must not be imposed because it is conditionally funded. The tool must come in an open, transparent and competitive environment in order to enjoy the support of the majority.

It is also crucial that the tool consider the financial ability of the recipient for licences and maintenance costs. It must also adapt to the local needs that promote sustainable development. This means that among other things, local people must be able to support the tool without or little dependency on the developers.

The design must take into account the technology mix that matches the realities of the local. The nature and the level of infrastructure to support the technology should be the basis of the plan. The alignment of the external support with the local developmental goals must be observed. It is easy to get the buy in of locals on the advancement of their initiatives rather than putting the agenda that has no roots in the local community. Many projects become white elephants since they lack leadership support or knowledge capacity locally.

2.5.2 ICT Readiness Success factors

In order for the ICT readiness to look appealing for development it must be judged against the following benefits of efficiency, effectiveness and growth as depicted by the Figure 3 below.

Efficiency	
Time	Accelerating business processes and activities
Distance	Reducing geographical and distance inhibitors/barriers
Creativity	Enhancing existing business processes and activities
Effectiveness	
Time	Improving the flow of information and business intelligence throughout the supply and the value chain components
Distance	Enabling integrated control of the supply and the value chain processes
Creativity	Enabling new (and/or modified) processes
Growth	
Time	Obtaining early market entry/presence
Distance	Introducing new products to new markets
Creativity	Developing new products and services

Figure 3: The strategic value of e-Technologies (Adapted from Chanyagorn & Kungwannarongkun, 2011)

In the context of local economic development, the efficiency and effectiveness in ICT tools is the turn-around time at which customers receive goods and services. The key is the streamlining of activities by reengineering business processes to support that goal. The current processes are not necessarily thrown out of the window, but become the building block to maintain the character of local processes. If time factor is favourably achieved it means distance is shortened. With ICT, geographic locations are eliminated as a barrier to development. Globalization comes handy to this process.

Along the value chain in the intellectual property the local must benefit through the ownership and control of the tool used in ICT. Often comes as a concern that most African countries supply raw materials to be exported without any beneficiation in the value chain. Industrialisation as a proposal will facilitate the process in the context of South Africa for job creation.

Growth in the economy is not only income that is considered to support development. Standard of living is a measure if the development is sustainable. Identification of blue oceans and innovation on existing markets is critical for economic growth path. ICT should facilitate this to leapfrog developing countries to sustainable development. The ICT tools being donated to developing countries must ensure skilling of local people for employability even on externalities along the value chains.

2.5.3 E-Governance

No one definition is agreed upon in defining e-governance by many scholars in this subject, the reason being that each definition tries to portray a particular view on e-governance (Khateeb, Faloudah, Bahumayd & Zafar, 2015, p. 2). In a nut shell, e-governance is the use

of ICT to provide information to citizens especially the use of internet for the better delivery of services in the most transparent way possible.

E-governance presents a number of advantages for development (Al-adawi, Yousafzai & Pallister, 2014, P. 1). These advantages are by no means limited to the following:

(i) Transparency: In ensuring sustainable democracy better ways of managing citizens enhance development;
(ii) Limiting corruption: Corruption is the worst enemy for development since it has a tendency to rob the poor majority for the few elite;
(iii) Establishing confidence: The department or local municipality enjoys public confidence since you are in control of information;
(iv) Efficiency: Transactions processing is faster, cost effective and more accurate;
(v) Developing sectors: Once adopted it turns to promote other sectors in-bound and out-bound environment;
(vi) Preserve availability: Since documentation is electronic, storage of information is guaranteed;
(vii) Comprehensive data: Data mining made possible since information can be accessed using different applications;
(viii) ICT industry resolve: It has a tendency to influence the local industries to compete thereby boost the market.

For applications developed to support e-governance, it is important that they comply with the ICT governance policies for sustainable development. The point is that, e-government has a direct impact on ICT for development.

Municipalities such as the Mandeni must develop an interest on such initiatives by National Treasury by ensuring that budget regulations are implemented. The benefits outweigh the costs if implementing them in the long term. It is also critical that the Municipality's website if fully operational be the key to this e-governance.

E-governance is the building block towards the ultimate smart city idea. Smart city six key indicators include smart people, smart economy, smart mobility, smart e-governance, smart environment and smart living (Letaifa, 2015, p. 1415).

2.5.4 Outsourcing state function

The challenge that normally casts doubt in e-Governance implementation is the outsourcing of government functions. This leaves the state capacity questionable as the role player in the economy (Baptista, 2005, p. 167). Critical information falls in the hands of the private sector leaving the state vulnerable and facing a high security threat.

2.5.5 e-Procurement

One single important area of development using ICT is e-procurement (Leukel & Maniatopoulos, 2005, p. 248). In South Africa the e-tender portal is implemented by the National Treasury. A central supplier database is used as a single source to have B2B with the State organs. The municipality of Mandeni is a role player in this. The work stream as required by mSCOA processes compels the Municipality to comply with the integration and seamless processes in ensuring that this is a success. The awareness to the local services providers is critical to be supported and benefit from municipal supply chain activities. Closely attached to this is the introduction of the revised gazette on Preferential Procurement Policy Framework Act number 5 of 2000 (PPPFA). This policy framework is trying to improve the level of participation of the previously disempowered population in the main stream of the economy.

The adoption of these process systems is intended to form a good base for Mandeni municipality to promote LED. Beyond these the municipality must have a strategy to deliver its LED goals.

The next section unpacks the strategy used by the Mandeni Municipality and tries to highlight the yard stick to measure its credibility.

2.6 Local Economic Development

Like many concepts of social science, the local economic development (LED) has a definitional difficulty. The term is defined in many ways depending on the time and the geographic area one will be looking at (Mensah, Domfeh, Ahenkan & Bawole, 2013, p. 164). For the purposes of this study, LED can simply be defined as the process by which the communities in a local area collaborate to ensure sustainable development that improves the quality of life for all through economic growth and employment generation (Wolman & Spitzley, 1996, p. 115). If one analyzes this definition, it gives specific objectives that need further discussion. Keywords to this are sustainable economy, economic growth and quality of life. For a better conceptual understanding of LED, the study discusses these concepts further.

2.6.1 Sustainable development and economic growth

The most commonly used definition for sustainable development is the one provided by Brundtland commission's report (1987) that says "it is a satisfaction of the current need without compromising the future generation to satisfy their own". The resources are limited yet the human needs are growing. In order to match the growing human needs, the economic growth is needed, which is dominantly known to be environmentally unfriendly. The intention of this definition is to expel the perception that says there is competition

between economic growth and the environment. These complement each other since the emphasis is on quality economic growth rather than real income (Ciegis & Ramanauskiene, 2009, p. 145).

The inherent problem of sustainable development is the lack of measurable objectives for concrete programmes that can be universally agreed upon reflecting the difference in the value based orientations (Ciegis et al., 2009).

A further problem associated with this concept is the interpretation attached to sustainable development that is linked to the subject that one is dealing with. Key subjects of concept interpretation relate to the following: (i) Economics, which is the development in terms of per capita income being better for future generations than the present one; (ii) Sociology is the development that focuses on maintaining social cohesion in communities; (iii) Ecology, focus on the development of ecosystems preservation. The challenge is also presented by the cultural orientation (Osorio, Lebato & Castello, 2005, p. 502). The non-indigenous view is concerned with the economic growth where environments, cultures and ecosystems are just means to achieve its objectives. On the other hand, the indigenous view interprets sustainable development as the nature itself where cultural values are harmonic coexistence with and within nature.

2.6.2 African solutions to African problems

The LED and its strategies were early adopted by developed countries in North America, Asia and Europe. The reasons for the adoption were based on a response to declining economic growth and unemployment due to economic restructuring (Mensah, Domfeh, Ahenkan & Bawole, 2013, p. 164). As a result, different approaches were engaged. The United States as far back as 1850s adopted LED strategies that are regarded as the first wave development (Hanley and Douglass, 2014, p. 220). This wave uses property tax abatement and other subsidies to lure existing jobs from higher cost areas and referred to

as “low road” development. The second wave is characterized by the prevalent of entrepreneurial policies. It is about the promotion of innovation, high technology industries, and identification of new markets, investment in education and research and development. It is referred to as “high road” development. The last wave emphasizes the policies that tend to promote the local context for economic growth rather than the individual firm, whereby firms enjoying agglomeration economies. The economic development in Asia was through the use of agriculture in rural areas to support the demand in the urban. The point is that for economic development to prosper, it is imperative to look at the situation of that local area to determine the relevant strategy for intervention. What is noticeable is that developed countries are what they are because of LED.

In Africa, LED emerged as a result of slow economic growth, poverty, global challenges and failures of central governments (Rodriguiz-pose & Tijmstra, 2007, p. 517). It is therefore argued that LED in Africa tends to focus more on the social side of LED (Binns & Nel, 1999, p. 390). The strategies adopted in Africa are of survival in nature rather than addressing the global economy participatory issues, and therefore leaving the continent even more exposed to underdevelopment. The fast-changing global economy propelled by technology, increase the gap of Africa’s back foot on LED. The role of the state is even bigger in Africa through legislation. In America the Right-To-Work laws (RTW) was introduced showing the role of the state at difficult times. That was then. In Africa, common ground needs to be found as minimum wage agreements are difficult to be reached, yet the standard of living is below the poverty line.

Poverty stricken countries, as a jump start to local economic development, prioritized Foreign Direct Investment (FDI). FDI has the ability to close the gap arising from the host country’s balance of payment (Schwarz, 2014, p. 4). Harrod-Domar growth model explains how the savings gap and foreign-exchange gap come about and the constraints from necessary savings to finance investment as well as the foreign trade to finance imports. It is the role of the FDI to fill in these gaps. Once the country is exposed to FDI, it is easier to have access to foreign markets. FDI will also assist to encourage local investment by

establishing conducive and favourable environment to put up businesses. From the established FDI there are spin offs that come with it. Importantly, is the local human capital that gets developed to participate through employment. The technology required for the industries is the big factor in economic development (Schwarz, 2014, p. 14). The role of the state again, comes in handy where FDI needs to be supported by regulations. China is the biggest beneficiary of FDI by establishing special economic zones (SEZ) in the country as early as 1979.

What makes things worse in Africa is the instability and conflicts in many countries on the continent. In his address, Prof Bonny Ibhawoh to the 3rd international conference on African development issues stated that unless there is sustainable peace, there can be no sustainable development. He emphasized the point of proactive peace building, human rights and justice. Under justice, corruption in the country is not a welcoming environment to economic development.

South Africa as a country is not far behind in terms of infrastructure, technology and networks. It is also a major player in the global markets. Structures are in place for LED to flourish. The country has the Constitution that promotes developmental local government. Municipal integrated development plans (IDP) need to be strengthened to support the LED fully. In fact, one argues that the IDP should be transformed into LED plans. All characteristics of LED formulation, implementation and monitoring are there in the IDP. The only weak point of the IDPs is that they focus more on the social side rather than being economically focused. Mandeni Municipality is not immune to this. The LED strategy of the municipality will be evaluated as an intervention to tilt the balance towards focusing on economic development issues. In the next section the literature review on ICT will be done as a step closer to answer the study questions.

2.7 Municipality's LED strategy

2.7.1 LED strategy

LED strategy is the process by which all the stakeholders work together in a collective to create the environment for economic growth and the generation of employment opportunities. There are various factors to consider when doing the LED strategy process as the process is not a one size fits all and must consider the circumstances of each area. What is clear here is that this process is limited by area of focus. Clear identification of stakeholders must cover the majority interest with the balance of minority interest considering the role they play. The intention must be common and embraced by all participants. For the success of the strategy, the project sponsor must be the municipality. Proper governance structures must be placed at the apex of the municipal governance level. The municipality's IDP must be the basis for its development supported by proper financial resources.

The local economy must be assessed, considering the geographic position, demography, tourism, level of education, transport infrastructure, finance and industry, agriculture and livestock, sales, employment and productivity. The entrusted team must collect basic data on summary of comparison, summary of opinions collected and business opinion survey summary.

Preparing the strategy will mean creating the vision, developing goals and objectives and propose programs to follow. Proper analysis must be undertaken to reflect on the positives and the negatives of these factors. As part of this process, is the environment analysis which is outside the control of the municipality. This must include the global environment, national key plans, provincial and district plans. This must then be followed by the well-articulated implementation plan with realistic key deliverables, due dates and targeted audience.

To complete the circle the strategy must be monitored and evaluated for its success. Proper evaluation systems must be put in place well in advance.

2.7.2 The Mandeni Municipality's Strategy

The current LED strategy was developed during 2014. This strategy is recognized in the IDP as a key performance area that intends to promote socio-economic development by pushing the frontiers of poverty and improving the quality of life. It intended to comply with the constitutional and legislative mandate.

These two opening remarks of the municipal LED strategy are worrying. Firstly, the LED must be the basis for developing the IDP. The way it stands confirms the early accusation of the credibility of the LED strategies that they are more focused on basic service delivery rather than the need to focus on sustainable economic growth. The realization of development goals is bleak. Secondly, it is a matter for compliance. This also casts doubt if it really represents the aspirations of the local people or anything more than a desk-top exercise.

Early assessment is that the document is outsourced. Ownership of the processes and capacity of the municipality to lead this process is already crippled. The governance structure needs to be sound. Its organogram must be supported by all heads of departments and currently their role is lacking. The implementation plan, monitoring and evaluation process plan lacks timeframes. The strategy should be tested against the world standard on the LED strategy development. The kind of strategies in and around the district should also be analysed as their credibility has a direct link to the objectives of the local strategy.

2.8 Municipality's governance structures to play their oversight role

The key to the success of any business is its vision (Aronson, Shenhar & Patanakul, 2013). It is critically important that the municipality's vision be geared to accommodate the ICT

readiness issues. ICT is meant to assist the municipality to achieve its vision. If the leadership is not aware of this, it might lose the war before it is even started. At the current level of being illiterate about the ICT, it is doubtful if the organizational goals will be achieved unless the whole process is policy driven. Legislative framework may be used to create an e-government policy. This will establish the terms of reference for future government projects to include an e-government component (Thakur & Singh, 2013). Critical to this process is the development and implementation of municipal corporate governance policy. The Public Service Corporate Governance of ICT Policy framework was adopted by Cabinet in 2012 for implementation by 2014. This policy assists to create an enabling environment for structure creation, business reengineering and strategic alignment between IDP and ICT strategies and continuous improvement of ICT elements. This policy is trying to close the gap to meet the standards and best practices of King IV code of good governance on ICT.

Setting the tone at the top is important. What is even more important is to 'walk the talk' in the implementation of that strategy. These are facts that are still to be established on ICT readiness matters in Mandeni Municipality. ICT readiness is not merely about accessing information but also about driving the economic growth. It must drive the business processes. In any project implementation, key performance indicators (KPI) are set. The important role of oversight is to ensure that smart KPI's are achieved. ICT readiness should form part of those indicators and be monitored for successful implementation.

2.9 Chapter Summary

Local economic development facilitated by local government must be restructured to accommodate the global economy side rather than dealing with social side of the economy. The municipal IDPs need to reflect a renewed vigour to promote LED from its current form of service delivery. ICT is arguably not used optimally in supporting LED. The review relates perfectly with the study to show the ICT involved in Mandeni and the level of its

use that is expected to translate to better standard of living. More research is needed in this topic since the municipalities in South Africa are going through a major transformation in terms of the use of ERP. The municipality should not use its integrated development plan (IDP) to deliver services only. The IDPs must graduate from being the social tool to a level of delivering LED such that the municipality becomes a player in the main stream of the economic activities beyond the municipal area. This is an area for future research.

This chapter presented the literature that is related to the study. The highlight was given in broad terms of the ICT readiness, its importance, challenges and its role in general. This was then followed by a description and the nature of the local economic development in general and one practiced in Mandeni Municipality. The chapter then mapped a relationship that exists between ICT readiness and LED. A theoretical framework as a guide to this study was unpacked to identify gaps in the body of knowledge for the research.

The next chapter presents the methodology that was used in the study. As its purpose, is to drive the point home that ICT readiness is a necessary investment to change the socio-economic conditions of the local population.

CHAPTER THREE
METHODOLOGY

3.1 Introduction

The previous chapter presented the literature that is related to the study. The current chapter presents the research methodology that was adopted. The chapter discusses the research paradigm; the research design and methods; the data collection instruments used; the data analysis; the study area; sampling technique employed and sample size. Finally, the researcher will discuss how the validity and reliability establishment and ethical considerations are taken into account.

3.2 Aim of the study

The primary aim of this research is to investigate factors that affect the ICT readiness to promote LED in Mandeni. The study is about improving living conditions of people of Mandeni using ICT that is readily available in the area. The Constitution of the country gives mandate to the municipality to drive development in the area. The question is whether the municipality is ready to deliver LED as expected using ICT.

Due diligent on ICT readiness of the municipality is aimed at assisting improve the systems supporting the functions. At the top the focus was placed on legislation and governance. ICT infrastructure, financial resources and human capital were also evaluated.

Basic service delivery alone is not enough if it is not sustainable as the foundation of LED. The municipality provides a very good crafted vision in its Integrated Development Plan (Mandeni Municipality IDP, 2015, p. 16) “To Be A Reliable People Centred and Sustainable Economic Hub By 2030”. This IDP encapsulates all legislation applicable to

the existence of the municipality. This legislation, if not properly interpreted to support the development of internal policies, may hinder the economic development of the municipality. The LED strategy is a chapter within the IDP. It is argued that a developmental local government must find its existence based on LED.

The municipalities are expected to have an alignment of their IDPs and the National development plan as well as the Provincial Growth and Development Strategy. This alignment should have the ability to support the local economies rather than a top-down approach implementation.

3.3 Research Paradigm

The research paradigm used in the study follows interpretivist paradigm. This paradigm is informed by the assumption that human beings construct meanings as they engage with the world they are interpreting as identified by (Crotty, 1998 ; Creswell, 2014). This is consistent with the views of Cohen & Manion, that interpretivist researchers discover reality through participant's views, their own background and experiences (Thanh & Thanh, 2015, p. 24). The idea is to understand the world in which people live and work in. The use of questions that are open ended allows the participants to share their views and experiences. This paradigm has shaped the approach to the research in that through the data collected the researcher has developed meaning since the process of qualitative research is inductive.

This approach is preferred since the researcher wants to determine the extent or effect of ICT readiness on LED promotion. In this research the point in question is the role played by ICT to improve local economic development in the municipality.

3.4 The research design

The phenomenological design is used in the study. Key assumption of this design is that the topic is a phenomenon experienced and lived by individuals as described by participants. This design was proposed in order to provoke debate and obtain deep thinking of the subject on each question posed. The process entails conducting interviews as a means to collect data and interpreting (Giorgi, 2009).

Qualitative methods were used. Based on these assumptions the research design is supported by questions as per the interview schedule.

3.5 The research methods

Qualitative methods are chosen for this research using the phenomenological study as participants are expected to give qualitative information on the perceived challenges as well as their impact on ICT readiness for LED in Mandeni. An in-depth interview is chosen for this study. This is a research technique that involves managing intensive one-on-one interviews with a small number of participants to explore their perceptions on a particular idea (Struwig & Stead, 2004, p. 12). This approach is appropriate for this study since the researcher sought detailed information about the participants' thoughts and behaviour. In qualitative research, the emphasis is on ideas, opinions and people's judgement of the world and what is happening around them. Also, this view is support by Cooper and Schindler (2006, p.196). It offered a more complete picture of what was happening in the field of study.

In conducting an in-depth interview, the interview guide was used by following a general process of planning the interview, developing instruments, collecting data, analyzing and presenting the findings (Creswell & Clark, 2007).

When planning this process, the following was taken into account:

(i) The identification of key stakeholders;

(ii) The Identification of information and interviewees needed; and

(iii) Ensuring that the research has followed the ethical research standard.

During the process the instrument was developed by considering the following:

(i) Interview protocol. These are the rules that govern the execution of the interview. As part of the appendices the interview guide is attached;

(ii) Questions that explore the issues

(iii) Informed consent form was also attached. Eighteen questions were listed.

The data collection process was conducted that include the activities as follows:

(i) Preliminary process and meeting with stakeholders. This includes the orientation of the interviewee;

(ii) Conducting the interview after seeking the informed consent;

(iii) Summarizing data after the interview and verification of any information given.

Data analysis is a critical process to assist the establishment of findings. This process was executed in the following manner:

(i) Transcribe and review data collected through voice recording. Coding of information was done consistent with the confidentiality clause.

(ii) Interview data was analyzed by looking for patterns on interviewee responses and gathering interview feedback and soliciting opinions.

At the end of the process the researcher closed with the formulation of findings that will assist to develop recommendations.

3.6 Data Collection instrument

Data can be collected by using structured, interviews (Saunders, 2012). The researcher used the structured interview questions to draw data. According to (Visagie, 2008, p. 46), structured interview comprises of a pre-determined set of questions which uses the same wording and sequence of questions. In semi-structured interview, structured elements are asked to all respondents and there are open-ended questions with no restrictions on how the responded can answer.

The structured interview method is chosen since it does not require interviewing skills and it is easy to analyze. It is also easy to test reliability (McLeod, 2014). The added value of the interview is that, one is drawing knowledge from known interviewee at a good response rate.

The research process started in earnest after the researcher having received the ethical clearance from the Ethics Committee of the University of KwaZulu-Natal. The researcher began to collect data. Therefore, the interview was conducted with professionals who possess extensive knowledge in the area of municipal environment, LED and ICT.

This research instrument complimented the research methodology and facilitated the answering of the research questions

3.7 Data Analysis

A thematic analysis technique was adopted to analyze data collected. Various themes that came up from interview were analyzed. From the answers, patterns were identified, organized into logical categories from the text. Content analysis is convenient for all research approaches that use written data (Cooper & Schindler, 2011, p. 295).

The process followed was to collect answers from a question for understanding and decide on responses should they come up over and over again. Themes are then formulated from repetitive responses. Responses were then grouped into one of the themes. The most frequently themes are those that have most answers.

The researcher then followed these analyses after the audio- recorded responses for each interviewee and for each question was transcribed. They were then filed electronically on a computer in accordance with the name and date of the participant. The recordings were also printed and filed in hard copies. The step is the organization of the raw data.

The researcher was then read the transcripts to gain familiarity with data with the aim of organizing the data into certain emerging categories and themes.

As the final lap in the process, the repetitive process was engaged where the themes are further categorized into themes that are more meaningful.

3.8 Study Area

The area of the study is the Mandeni municipal area in the province of KwaZulu-Natal. The population size is 148387 according to Census 2011(Statistic SA, 2011). The area was demarcated with seventeen wards, five of which are regarded as urban. The area is chosen since it is the subject for discussion, being the research topic for LED. It is mostly rural which is surrounded by sugar cane farms and a concentrated industrial area close to town centre.

3.9 Sampling Techniques

Guided by the nature of the research, purposive sampling under non-probability sampling techniques is used. In a non-probability sampling is where a sampling technique is used in

a process where individuals in a population are not given equal chance to be selected. Since the topic requires a deep theoretical background, the skills and knowledge these attributes could be found when specific sample biased to these attributes is selected. According to (Visagie, 2008, p. 58), in judgmental sampling the researcher is concerned with analysis only on determined types of subjects and this sample is chosen on the basis of expert judgement. As reported by (Blumberg et al., 2011, p. 194), this approach is used when a researcher chooses sample members to conform to some criterion. In this study the researcher is targeting a sample of individuals with particular skills level on management with an exposure and experience on the Mandeni environment. The idea is to be able to get someone who can share information that is exclusive to the area. This information is to be delivered in a systematic manner reflecting managerial ability and knowledge.

3.10 Sample Size

The sample size is the number of completed interviews for which data were collected (Lavrakas, 2008). The topic requires that the challenges facing the municipal's ICT be explored and their impact on LED be understood. Therefore, this requires focus on senior managers in the municipality and key stakeholders in the business community that are strategic partners of the municipality. Making sure that there is sufficient data is a precursor to a reasonable review and description (Marshall, Cardon, Poddar & Fentenot, 2013, p. 11). (Mason, 2010) did indicate that samples for qualitative research are usually much relatively smaller than those used in quantitative studies.

Interviews will be conducted guided by the interview questions prepared for all sample size of eight (8) people. This is a selection from a population of twenty managers on the basis of expert judgement.

3.11 Reliability and Validity

As a measure to fulfil the necessary step of reliability and validity of data before starting the interview, the pilot test interview is conducted. This was done without notifying the interviewee that that was a pilot interview. Only one interviewee was piloted on. This may appear not enough. However, the level of knowledge and extensive experience commanded by the chosen interviewee on municipal environment. LED and ICT made it easy to conclude that the questionnaire and the developed questions were adequate and free from material error which posed a risk of delaying or stopping the research process or extracting relevant information from the respondent to adequately conclude on the research questions. This approach is recommended by (Saunders et al., 2012) to determine if the questionnaire functions. Also, if the answers will be recorded accurately and if participants have no problems to answer the questionnaire.

As alluded to by (Saunders et al., 2009, p. 156), there is a relationship between the reliability and the extent to which your data collection techniques or analysis procedures will yield consistent findings.

The privilege of knowing that the participants are specialists in the public sector as an industry makes the finding more reliable and realistic for the research. The responses were tape recorded. This allows the researcher to listen to interviews over and over again to sought further information or analyze data to gain better clarity if needed.

Another benefit of using structured open-ended questions in an interview process is to allow flexibility to the research in posing open ended questions to explore the complexity of the topic and to probe the respondent for further information should the need arise. Inherent biasness that arose from the interview method includes the participants' bias, participants' error and interview bias. These possible risks were reduced since the researcher employed the following controls to enforce reliability and validity of data:

Participants' bias: the researcher has ensured the anonymity of participants at all times during the interview.

Participants error: only when the participant felt ready or willing to respond where questions posed and answers sought.

Interview bias: the researcher avoided making too many gestures and comments that might influence the participants during the interview to elicit a specific response.

The interviews were conducted in a place and location convenient to the participant, at times convenient to the participant.

Validity was also confirmed by ensuring trustworthiness of study by achieving the following techniques described by Loh (2014, p. 5).
Credibility (internal validity): engagement with participants by describing the objectives of the research before the interview began and peer debriefing and archiving of data recorded and transcript in the personal computer protected by a password.

External validity: it was achieved by providing a thick and rich description of the study and its participants to allow the readers to understand the research.

Reliability: during the interview data collected were recorded on audio-tape and notes taken simultaneously by the researcher to enrich the audio- recording.

3.12 Ethical Considerations and Confidentiality

Ethical considerations and confidentiality is concerned with the behaviour and conduct of the researcher to behave morally and reliably. This process deals with a question of how the methodology adopted is followed correctly (Cooper et al., 2011, p. 113).
The ethical consideration in all deferent stages of the research process is reflected throughout (Creswell, J., 2014). This ethical consideration occurred even prior the conducting of the study when putting arguments for the study and writing the research proposal. It also took place during the collecting data, analyzing data, reporting and the storing of data.

The researcher observed the code of ethics from the professional body that he is registered. Ethical clearance was also obtained from the academic institution through the supervisor at University of KwaZulu - Natal (UKZN- GSB). All participants have signed informed consent agreeing to participate without prejudice.

The researcher is expected to design the questions such that the safety of all interviewees is protected. They should not feel threatened. The interviewees are made aware that the interview was confidential. They were made anonymous as no mention of participants' name is made or attached against the responses. As interview was tape recorded, the permission was requested from interviewees and reasons explained.

3.13 Chapter Summary

The methodology has explicitly covered the understanding of concepts used in the study. The chapter outlined the research methodology. It firstly discussed the need for the study and revisited the research paradigm. The research design was then looked at together with

the research methods. The researcher then briefly explained about the research instruments and how the questionnaire was developed. The process of data collection and analysis was engaged. The researcher also justified the sample are, sample size and sample technique. Lastly the researcher outlined the reliability and validity followed by the ethical considerations and confidentiality. The results of this research are expected. This is the intention of the next chapter.

CHAPTER FOUR

Presentation of Results

4.1 Introduction

The aim of this chapter is to present, analyse and discuss the findings from the research study in order to respond to the research questions. The findings are generated from the discussion in Chapter two and responses obtained from the participants during the in-depth interviews conducted in the case study area. These findings are analysed and proposed in the form of interview feedback and opinions that are aligned to research questions. This chapter will discuss the findings on challenges and limitations on legislation, the ICT skills shortage on employees entrusted with LED, the resources that are limited, the role of councillors and the support expected from management.

4.2 Core Interview feedback

The identification of core over-arching feedback is critical to support the study. The nature of the topic together with the methodology employed for research dictates that the findings of the study be presented in a form of opinions expressed by interviewees. An in-depth interview was conducted with eight senior management of the institution to arrive at the core interview feedback. In the following sections, each of the results will be divided into key thematic areas. Firstly, the five core feedback areas are highlighted and briefly explained and thereafter each of the core feedback areas or themes are explained in detail considering the opinions and perceptions of respondents. What follows are the core interview feedback areas that emanates from the research study undertaken.

(i) Legislation and its limitation

This interview feedback explored the legislative applicability to the establishment of ICT for development. The main focus was on MFMA section 83 and the ICT Charter and the impact they have on ICT readiness.

(ii) Skills shortage

This theme unpacked the ICT factors in terms of skills essential to the municipality to deliver on local economic development

(iii) Resources shortage

This theme explored the ICT challenges affecting the readiness in terms of infrastructure, finances and time for the municipality to promote local economic development to the community of Mandeni. The theme also covered the views on issues of integrated systems

(iv) Oversight role

This theme identified the deficiencies in Municipal governance structures in order to play meaningful oversight role even at ward level in adopting and implementation of strategies to achieve the organisation's set vision.

(v) Willingness and support

The last interview feedback area focused on the evaluation of administrators, there comprehension and attitude towards the recommendations for ICT improvement to enhance LED and proposals to the decision makers.

In the following section the five interview feedback areas are discussed in detail capturing the respondent responses and their relevance to the research questions as well as their impact to the ICT for LED in Mandeni local Municipality.

4.2.1 Challenges and limitations in legislation

This interview feedback will specifically focus on the Municipal Finance Management Act no.56 of 2003, MFMA, section 83 and the impact that it has on skilled staff within ICT to assist in LED projects and programs and thereafter looks into the ICT Charter and the challenges that arise from the application of this legislation. The approach that was followed was to look into all respondent's opinions and perceptions and raise the most pertinent issues that arose.

4.2.1.1 MFMA Section 83

Quote 1 –100 – AG – 1: Yes, hundred percent. I think so, even though I think the section 83 is not necessary for senior managers because I think senior manager already have all round knowledge. I think with regards to ICT and especially since ICT is very new, it is critical that all ICT and especially leadership within ICT understand every aspect of the municipality. It's very common to see that people who are working in ICT don't understand finances. They don't understand what strategic management is. They don't understand what is LED, what are community services; they don't even know what grants are available and what grants they can use. So, I think it is important that if the staff members in ICT have the minimum competency requirements they're able to display that they understand what each aspect of the municipality does. I think with regards to local economic development, it's critical because LED brings in many different aspects, it brings in the financial part, it brings in the community awareness, it brings in understanding for basic services delivery, it brings in a subconscious understanding of what's a strategy. So, for an ICT manager and ICT staff to be able to perform their duties, not only relating to being able to connect computers and network but also being able to enhance the community, I think they need to have a deep level understanding of all aspects of the of the municipality.

Quote 2 - 102 – 1: Ok, ok, so with the recommendation of one staff member, I'm not exactly agreeing with that one. I would say all staff members should have minimum competency levels, for the simple reason that when it comes to ICT it's a team effort; no single person in ICT knows every single thing in ICT. ICT is so broad that you need heads of various people to achieve one goal. So, essentially all staff should have minimum level in order to achieve the greater goal.

Quote 3 – 103 – 1: I certainly think so because if you look at that particular regulation it's aimed mainly at getting Municipal stuff mainly at the level where decisions are taken, to understand local government more at a strategic level. So, I think you have to go through that training. It's pitched at a very strategic level. Even the modules that you have to undergo deals a lot with strategic issues such as budgeting, planning, SCM and leadership. Those kinds of things. So, getting a person to be exposed to that level would certainly help in understanding the dynamics on the ground when it comes to LED. So, I would say that training can assist in opening up people's mind sets to understand local economic development in a different perspective and I think that is where if people that are involved in decision making can find their way into the strategic aspects of the local community, you can create a bridge whereby we can possibly enhance the local economic development.

Summary of assessment

All questionnaires point to the importance of the MFMA section 83 compliance and the need to ensure that the ICT is adequately capacitated to support ICT functions aligned to LED. All interviewees point out that the MFMA regulation allows for a broad understanding of aspects such as finance, ICT and LED as well as understanding strategy and planning and thus will ensure that if ICT staff undertake and achieve these minimum

requirements then they will develop their overall understanding of LED and other functions and therefore ensure that integration occurs. Furthermore, many of the interviewees point out that the minimum competency being rolled out by government and training collages are aimed at a strategic level therefore ensuring that those that undertake this course will play a pivotal role in the strategic planning progress which is essential when you are looking at the long term strategic documents of the municipality such as the Integrated Development Plan.

4.2.1.2 ICT Charter

Quote 1 - 107– 1: I don't think it's sufficiently being dealt with the issue of LED but I'm aware in terms of the charter they have, it come up with a three to five years turnaround plan. If one looks at your short to medium term it focuses mainly on internal operations. So, in the long term which I think is the phase which we are entering into now, because all systems are in place internally, the infrastructure is in place, now the focus will be to the external stakeholders which I think the element of LED should then will be adequately covered through that phase but up to now, yes, I can agree, we haven't done much to deal with issues of LED. What gives me comfort according to this five-year plan there is a phase that talks to now covering LED issues.

Quote 2 –106– 2: Yes, I do believe that when we look at our ICT charter, it does adequately deal with LED issues because the purpose of having an ICT within a local government institution, is to make sure that, service delivery is efficiently delivered through the use of ICT processes. So, if we look at our charter the whole aim of ICT is to improve ICT and also improve the lives of people through the use of ICT

Quote 3 - 100– 1: Ok well obviously my view is no. The ICT charter is led by the ICT governance framework and stemming from the ICT governance framework is all the matters and ICT security, ICT operations, ICT safe guarding, but there's no policy that talks about ICT growth in terms of LED. I think as part of an ICT there should be some kind of balance as part of the ICT charter. In the ICT policy there should be an aspect of ICT supporting business processes. How does ICT support each different division in their strategies, for example; in terms of internal audit, we need to perform audit on each of the systems. How can ICT support us to obtain that information? How can ICT now support LED in terms of their objectives as an economic growth and economic development. I think ICT charter needs to specify. Ok the first thing that we need to do for example; in terms of LED, is to support LED maybe going out to the community for educating and training. Then maybe working with the LED department to understand what their objectives in terms of economic growth are, what are they targeting, if they are targeting mini factories, will it make sense for us to go there and put WI-FI and therefore make those factories more suitable to organizations or should we go out and support SMMEs by capacitating them on how we work. On the other inserting your name on the list the SCM supplier database, maybe ICT can take a leading role in those aspects. So, it's all about how the ICT charter is updated for what the LED needs. I do believe that it's a cross functional as well because the LED objectives also need to in cooperate with ICT can do. So, at the moment, no it's not sufficiently detail and I think what needs to be done is that there needs to be a review of the ICT policy and the ICT strategy together with each of the business units including LED.

Summary of assessment

Based on the interviews there is obviously a disjuncture between the view of the ICT unit and those of senior management. Several of the interviewees point out that the ICT charter has obvious weaknesses in that it addresses IT critical issues such as IT security and ICT operations however it falls short of addressing ICT strategic issues that bridge the gap between the ICT Charter and the IDP document which focuses on LED issues. Though some of the interviewees highlight IT's short, medium and long-term plan as a strategy, others highlight that if there is an existing strategy this is not captured in terms of local economic development and community growth but rather as a tool for internal improvement of ICT system and functions. The ICT manager and the ICT officer talk about the ICT Charter dealing with basic service delivery and thus serving to complement the staff within the municipality in achieving basic service delivery. This is a core issue in terms of government functions however the obvious misunderstanding by ICT on LED is evident. Basic service delivery is only a single component of governments plan to achieve. Local Economic Development is a separate component and as such details of how ICT works to remote LED is also required in the ICT Charter or a specific document such as the ICT Strategy. My view is that the external legislation works well to capacitate the ICT unit in terms of obtaining broad skills however the internal legislation needs to be broader to include firstly an ICT strategy that addresses National Key Priorities and LED issues and then an ICT Framework which includes amongst others an ICT Charter that deals specifically with internal issues.

4.2.2 The skill shortage amongst ICT staff in relation to understanding LED

This interview feedback will focus on the skill requirements of the ICT staff in terms of LED at MLM.

Quote 1 –102: So personally, I believe that the ICT of the municipality is not actually doing anything to assist local economic development. We focus mainly on internal functionality, we not really assisting public or businesses for that matter. We do have plans but with plans obviously there are a lot of obstacles to get over. From a skills perspective, of course you do need skilled staff, irrespective of their skill, whether it be administration or technical skills in I.T, whatever it may be, you need to understand business and what truly is local economic development.

Quote 2 –103: So, it basically helps us internal departments to improve the way we operate by using the ICT tools and by implications when we improve that we are able to improve the economy out there but I don't see the ICT department being directly involved with the outside departments or the outside community to get directly involved in economic development. So, I think that is something which I think may be a gap in how we implement LED.

Quote 3 –104: Ok I'm going to answer this in 2-fold. In terms of the manner in which the ICT is dealing with LED issues, I would say the ICT of the municipality is very dysfunctional. It is not dealing correctly in as far as LED is concerned apart from just the couple of pictures that you find in the website of the Mayor handing over items to community members as part of an LED kind of program. That is the only link that you find between ICT and LED currently. If our ICT was that in tune with our LED they would know that there are some LED tools that have been used emanating from information. IT tools that are used. I don't want to dig a lot with the different LED tools that have been used, but that needs IT. Another thing is that currently in our municipality the challenge that we facing is that, the LED function isn't really receiving the prominence that it deserves.

Quote 4 –105- 1: I don't think there is enough skill as far as the municipality is concerned. As far as the municipality's role in dealing with the ICT in the local economic development issues, I don't think there is a lot that is done by the institution in promoting the ICT within the LED. Except that we as staff members are exposed to ICT and in the end, we are able to assist people but rolling out the ICT into the communities there isn't much. I'm aware that Ilembe District municipality was tasked to prepare a broadband project which was supposed to be rolled out within four municipalities within the area.

Summary of assessment

All questionnaires apart from the IT Manager, point at a disjuncture between ICT skills and LED understanding. Respondent highlight the fact that IT is internally focused in supporting internal departments however they are not focusing on the key mandates of service delivery by promoting LED within the community and thus this inhibits growth of the community. Issues such as internet access for the community, the rolling out of an easily accessible website that is informative and the support of the community in growing ICT skills are all being ignored and this has serious repercussions in terms of community upliftment. Through analysis of questionnaires it is also evident that those directly involved in IT namely the IT officer is not truly aware of the role of ICT in LED whilst others see this as a poor strategic direction on the part of MLM. This needs to be explored within the interview feedback to talk about the impact of skills on LED. The questionnaires don't talk about specific skills required however it is obvious that ICT staff and support staff need to be briefed on LED and ICT issues and how the two functions can be intertwined to promote growth within the community

4.2.3 The resource shortage

The interview feedback will look into resource constraints (money, time and personnel) and the impact it has on the effectiveness of the ICT within LED

Quote 1 –100 –1: There's also a resource challenge because the community does not have the resources to access ICT Can they go on the website? Do they have computers? Do they understand? Those kinds of issues. I think lastly in the financial aspect when it comes to money, it's really easy for us to say that we need to support them but how can we support them if they don't have the adequate finance. Maybe capacitate infrastructure or maybe to train people. So, I would think that overall it does become a budgetary issue as well.

Quote 2 –104– 1: Now I'm looking at our community within Mandeni urban. I'm not looking within other rural areas. That's the challenge that we found. So, then it doesn't promote LED in a sense that already it's kind of like exclusionary. Only if you have resources you can be able to access the type of LED that is currently being done in this Mandeni Municipality. They are not at that level where they are able to compete with those that are already part of the databases. Our LED primarily is consisting of people that are formed from co-ops, small community groups that are just marginalised and they are saying that they are doing LED. So, those people already ninety eight percent of the time are reliant on the municipal resources. So, unless we as a municipality avail resources to assist them to be able to participate and be part of this or register on these databases then we can promote it. From my own point of view, it's kind of like at a bit of disadvantage position. It doesn't really promote it. Yes, that's my opinion.

Quote 3 – 105 - 1: One, I think it’s the vastness of the area. The ICT that we are dealing with, are just concentrating on the CBD area. The rural area is neglected. I'm not too sure if our hub libraries, the Ndulinde library are connected ICT wise. Two, I'm not too sure

whether we have expanded our ICT to schools. Whether we have the schools program wherein either the library simply services or the schools have facilities for ICT, wherein the municipality will play a role in assisting those people with connectivity of some sort. So, the challenge is that the area is so vast and also, we do not have enough resources to engage the rural people.

Summary of assessment

At least 5 of the questionnaires reviewed highlight the issues of resource and resource constraints in terms of providing adequate LED in terms of ICT. Interviewees have stressed this issue of resources in terms of:

(i) Access to the municipality website and internet – This restricts LED growth as firstly members of the community cannot access the internet to perform basic activities such as developing CV's and conducting basic business transactions. This access to the internet and municipal website also restricts SMME growth and local economic development within the community as they might not be aware of possible business opportunities, quotes or tenders

(ii) Exclusionary principles – The idea of ICT involvement in LED seems to not address but progress the idea of exclusion amongst the residents of Mandeni Municipality. Numerous interviewees sight that access to ICT, database registration access to the internet etc. limit members of the community from participation and actually promote business amongst the richer more affluent people who have regular access to these ICT tools

(iii) Size of Mandeni – Two interviewees have highlighted the issue of resource constraints in addressing ICT and LED development. They highlighted that the vast nature of the municipality and the number of individuals within the community cannot be catered

by the municipality's limited resources. This is turn creates an argument for PPP (Private Public Partnership) but also the need to engage with stakeholders in terms of growing ICT within the community. The National Programs of providing countrywide internet access and broadband access needs to be discussed as a viable option for the resource constraint and also the need for the appointment of individuals to run training programs at communities. I believe that this is a strong argument that can support the inability for LED and ICT effectiveness currently in Mandeni

4.2.4 Council Oversight role and awareness of ICT and LED

This interview feedback will focus on the council knowledge and understanding of ICT and LED in supporting LED growth:

Quote 1 –102: I believe that the ICT report is completely overlooked. Simple reason; I for example, if I don't understand finance, I'm not really going to pay attention to it. If I don't understand it I'm going to leave it to the people that understand it. So, the same reasons, Councillors don't really understand I.T or ICT for that matter. So, they truly not going to understand what that report is really saying, it's going to be confusing to them. Yes, it is biased in a way due to the fact they don't understand therefore they can't make a decision on it. However, due diligence given to that report would truly assist your economic development as there's a lot of things in that report that can actually help.

Quote 2 - 106 – 2: Well when it comes to council and ICT audit reports since audit findings are also part of the institutional management audit report they are also made aware of what is happening within I.T, but my feeling is that more can be done by council in terms of how they are going to address ICT issues to improve local economic development because what is lacking in terms of ICT is that there is no proper oversight that is coming from council.

At the moment oversight is happening at a top management level but the oversight that is at a council's level is a bit lacking and this is where we can use the implementation of our I.T governance to implement proper ways in terms of how we're going to drive ICT. The area where council can be hands on is in terms of how the audit outcomes are addressed and how we can use audit outcomes to improve local economic development within that institution.

Quote 3 – 104 – 1: Ok, in terms of the way council is dealing with the ICT audit reports, in terms of the level at which they're being interrogated, I think there could be more interrogation. I'm not sure whether our council have capacity. It's just unfortunate that what I've observed is that our council does not even have the right skills to be able to interrogate them efficiently hence why they will always have that bias because for them to be able to interrogate the audit reports in totality and give the same amount of focus throughout the reports for all the components of the report they must have that skill or that kind of acumen to understand the report. Without that understanding council is kind of like forced to interrogate or to focus on those issues that they feel that they understand. So, I feel that they lack skills to understand. That leads them to not being able to fully focus to interrogate.

Summary of assessment

From the review of the questionnaires it is evident that no interviewee believes that council is properly performing adequate oversight over the ICT reports especially in terms of linking ICT to LED. All interviewers have raised in some form or another the issues of poor skills from the council stemming from the fact that they are either (1) not educated on ICT issues and LED issues or (2) do not understand or see the importance of the link between ICT and LED. It is also obvious that those that are not in the ICT unit lay some blame on the ICT unit as they state that the reports are not in a simple form or do not identify LED issues within their ICT reports. It should also be pointed out that integration

has come out strongly when it comes to ICT reports to council as the IDP Manager and the Technical Services Director highlight integration in the ICT reports and LED reports as problem areas. They are often reported separately when certain issues can be combined. There is a mentality of working in silos (separately in each department) and hence the reports often don't link to each other.

I have not seen much information from the questionnaire regarding human resource constraints apart from the issue raised by the ICT Manager who stated:

Quote 4 –106 – 2: The second biggest problem is due to finance I feel that there is no proper finance allocated to ICT to be able to bring projects which will improve ICT within the local government sphere and to appoint sufficient capable staff to understanding the integration of ICT and LED and to train people who do not have an understanding of ICT.

Based on the above it is clear that the biggest resource issue is finances to roll out ICT projects to the community and the provision of basic ICT services for the furtherance of LED.

4.2.5 Support from management and other structures

This interview feedback will specifically focus on management's attitude towards the ICT and LED in terms of providing reports and attending meetings, giving guidance that is ICT based to enhance LED. It will also deal with the collaboration between ICT steering committee and LED.

Quote 1-100: Well I know that the Economic Development Planning unit does speak on LED projects such as growing the informal business area, the SMMEs, mini factories. So, they do speak about those. I also think that there are follow ups done on these issues by

LED because there are minutes that are followed up. Are they receiving adequate focus? I don't think that LED receives adequate focus at the municipality. I think LED is a by-product of us needing money and us trying to deal with basics service delivery. Where the local economic development needs more focus is whereby we link the local economic development to the revenue enhancement strategy and we link local economic development in totality to ICT So I think there has to be some kind of combined approach where this can work and I think even though there are questions being asked I think that the way that they've been asked is specifically related to LED, they not being related. They are not being asked in terms of LED and ICT So I think there needs to be some kind of knitting together of those.

Quote 2-101: I will touch on what I will call the temporary in LED or in economics in terms of the ocean economies which is Operations Phakisa that was launched by President Jacob Zuma, two or three years ago. I know that in one of our strategic planning sessions we have spoken about this and I've never seen any report, probably at a portfolio committee it might have been discussed but as management I've never seen any report to the effect that we are now moving towards that yet we are enjoying the coastal belt of more than thirty kilometers. Having that kind of beaches that we have especially Tugela Mouth beach, which is perceived to be more of a fishing beach, I believe we're not doing enough. I don't think that there has been report or strategy that we've come up with that is focusing to that. To me that is regrettable in light of the increasing unemployment rate, especially among youth. I think if we had to put more effort on that it can help with the economic development within Mandeni.

Quote 3-103: Ok, I don't believe that top management is giving ICT the type of attention that it deserves. If you look at our governance structure, we have our ICT steering committee. ICT steering committee is made up of top manager. So, I think the structure is

there and the platform is there to make ICT cross-cutting whereby you shouldn't be taking any decision without the help of ICT or looking at data that must be analyzed. So, for us to take informed decisions ICT is such an important platform to base those decisions on. So, that is where I find it being a challenge. We would find top managers taking decisions but sometimes their decisions are uninformed by good research and analysis from data that is readily available. So, I think that's where top management is possibly lacking we are not getting the business right. The information could inform business intelligence processes. Our processes, business strategies etc. are not fully informed by the data that is out there. That is the first one that I think were we can change. Bringing it back to LED, I think if I happen to talk about strategies and business intelligence, it's where all is derived. We've got our I.D.P. Our I.D.P is an all-encompassing strategy for the municipality. It's a strategic plan for the municipality. So, it's normally built upon the foundation of getting social economic development. That's what our IDPs purpose is. So, if we align the IDP to our entire decision making, our strategies that we do, by implication we should have a growth in our economy. So, I think as much as we do a lot of these plans, it is not just done for compliance. Are we really measuring the impact? I think that's where we can find a link between using ICT as a tool to enable our business decisions and by implication addressing our IDP.

Summary of Assessment

From the review of the questionnaires posed it is evident that no interviewee believes that management is properly focussing on LED mandate over the ICT reports. All interviewers have equivocally expressed their dissatisfaction the way Municipal business is short changed when it comes to LED by management. Management deals with LED issues as a unit on its own and ICT as another unit. Critical business decisions are not supported by business intelligence. This is the level of stereotype this management is. The fact that management is forming the ICT steering committee, confirms the ignorance of objective

of IDP. The suggestion that LED is the means to achieve service delivery is a shame on management. LED is an end itself for economic growth. The management support is inadequate. This is a danger to the organisation. This is an administration that is supposed to advice council on how it can drive the IDP for set vision.

4.3 Conclusion

In this chapter evidence and the contribution of participants through an in-depth interview is shown. Relevant research questions are responded to. An assessment is given for each interview feedback as identified. The assessment will further be analyzed to formulate findings on these interview feedbacks. This is the purpose for the next chapter.

CHAPTER FIVE

Discussion

5.1 Introduction

In this chapter the researcher will provide the discussion of each research finding emanating from the above chapter. The researcher will interpret and explain the finding together with all readings previously conducted. The purpose is to evaluate this research in order to refute or to concur with findings obtained. I will also address the aim and objectives of the research and show how the data collected assists to support or refute the study.

5.1.1 Challenges and limitations in legislation

5.1.1.1 Finding discussion

Based on the findings MFMA section 83 is the basis of departure for the ICT office to function optimally for LED. The level of efficiency observed and praise from ICT manager acknowledging the knowledge acquired shows the effectiveness of the unit standards on minimum competency levels. Exposure to financial aspects of the municipal budget interpretation makes everyone appreciate the ability of the municipality to serve the community aspirations. The shortcomings of none involvement of ICT staff at management committee meetings are glaring. This is true since they cannot influence decisions and provide solutions that may have been easily managed through ICT solution. The IDP as the main driver for development

in Mandeni has an inherent risk of not being customised around ICT methodologies in solving some of the challenges of the community.

The observation holds the same for the ICT Charter as no alignment exists with local community aspirations. The operability of this charter ignores the existence of LED. It is only inward looking and fails strategically focus on the needs and requirements of the community at large.

5.1.1.2 Interpretation

Regulations on minimum competency levels are a compulsory achievement by all municipalities' senior managers. The problem is the same for ICT charter. The interpretation is that the ICT charter must be crafted such that it promotes the LED. The Mandeni municipality's ICT charter is silent on external stakeholders (ICT Governance policy charter: Mandeni Municipality, 2016).

5.1.1.3 Explanation

The Integrated development plan of the municipality is better served if ICT plays a role in driving its objectives. The manager that is well-grounded with all key competencies is better positioned to perform towards the LED vision.

5.1.1.4 Evaluation

Mandeni municipality's vision is not properly implemented. This is based on the assessment that senior managers in ICT still lack exposure to top management decision making bodies. Decisions if not diluted with ICT based solution they lack

efficiency, which is detrimental to the LED. The level of compliance matters at municipal level sometimes limits creativity since red tapes cripple development.

5.1.1.5 Aim and objective research

In order for me to refute or concur with my evaluation of this interview feedback, I need to weigh it against the relevant research objective. The objective is to explore the applicable legislation to the establishment of ICT for development in Mandeni municipality if they are assisting in promoting LED. While the external legislative framework is positive, such as the objectives of Municipal Systems Act, the same is not true with internal framework and policies.

5.1.1.6. To refute or to concur

The Regulations on minimum competences as well the ICT charter of the municipality are not aligned with the IDP objectives. This confirms the research claims that Mandeni Municipality is not using the legislative framework to the benefits of local economic development. An existing ICT charter is not captured in terms of local economic development and community growth but rather as a tool for internal improvement of ICT system and functions.

5.1.1.7 How data assisted to reach conclusion on this finding

The in-depth interview by municipal management team assisted in revealing this claim on this finding. There was consensus on responses to questions on legislation. A strong and overwhelming view on the lack of ICT charter was also drawn.

5.1.2 The skill shortage amongst ICT staff in relation to understanding LED

5.1.2.1 Finding discussion

In this finding one is identifying reciprocal lack of skills between the ICT office staff and the strategic management level. The ICT office staff is putting blame on the ignorance of top management of not involving them on decision making platforms. It is management that sees no value on ICT. Things can happen without ICT. The lack of skills on the side of management sees ICT as threat to their environment.

On the other side ICT office is accused of being ignorant on IDP issues. This ignorance is detrimental to the objectives of economic development at local level through IDP. ICT staff must involve themselves on IDP matters. Their focus is mainly internal operational projects.

These accusations will not stop unless the structural framework is fixed. This is the experience in Mandeni municipality. Since the assumption was before that the generic nature of our legal framework, there are great possibilities that this is the case to most of the municipalities.

The application of ICT tools is elementary. Even those that are implemented such as website and database registration are accessible to the elite or those outside the indigent bracket.

5.1.2.2 Interpretation

The interpretation of this interview feedback is that ICT skills alone are not enough. Appreciation of local economic development by ICT staff is important. Management should also embrace ICT skills in their comfort zones. This is the best way to realise the vision of the institution (Aronson et al., 2013).

5.1.2.3 Explanation

The municipality does not fall short of skills in its ICT office. Whoever, the skills are lacking at the level of decision making**.** To complete the skills application exposure to LED matters by ICT staff is importance.

5.1.2.4 Evaluation

The evaluation of this interview feedback towards Mandeni municipality is that the municipality is at risk of not achieving its LED goals yet skills exist. The alignment of IDP objectives to skills available is important.

5.1.2.5 Aim and objective of the research

The interview feedback is linked to the research question that argues that critical ICT enablers are being undermined at the expense of local growth. As it has been

determined, skills are one key factor to ICT for local growth. This major factor is frustrated by misguided policy implementation and silo mentality.
It has been established through in-depth interview that the accessibility of ICT for development to all communities is skewed in favour of the already have in Mandeni.

5.1.2.6 To refute or to concur

Based on the responses from the ICT practitioner it established that skills exist. However, the skills are not optimally utilised. As a result of this overwhelming evidence the claim is true that ICT factors such as skills are not contributing positively to LED, therefore concur with the claim.

5.1.2.7 How data assisted to reach conclusion on this finding

The in-depth interview on this finding was interesting in that, you could see camps within the municipality defending their corner. ICT itself has become a dependant variable. Further research is required in this field.

5.1.3 The resource shortage

5.1.3.1 Finding discussion

The finding highlights three major observations that hinder development through ICT. The question of access to internet, exclusion and the vastness of the area dominate. The internet access involves the internal infrastructure readiness. The Mandeni Municipality comes from the era where internet was outsourced. Being

hosted outside the municipal premises, it is still a challenge for quick implementation of ICT projects. A municipality's budget is too low. Hard core service delivery projects are prioritized. The rural communities are no-where near to ICT facilities. Training is the must in these communities, which is ignored by the municipality. New technologies need to be funded in partnership with National or provincial initiatives. Low cost or subsidized broad band need to be explored. ICASA must come to our rescue on issues of #data must fall campaign. Competition Commission on collusion issues by mobile companies will assist to reduce costs.

5.1.3.2 Interpretation

The municipality must consolidate all resources in its disposal for ensuring the easy access to internet. Involvement of external partners will assist to ensure wider coverage that does not discriminate along the urban versus the rural.

5.1.3.3 Explanation

An outward focussed implementation of ICT resources supported by strong internal structures will assist to boost the chances of local communities to get facilities for development and income growth. Internet is information which is a major contributor to poverty if it is lacking. Opportunities on new markets outside the Mandeni area can easily accessed using internet at a very low cost of travelling.

5.1.3.4 Evaluation

My evaluation of this finding is that it sets the tone for honest LED implementation. Intervention of higher authorities will assist on ethical business. These unethical

activities impact severely on the poor mostly rural communities. The little that the municipality provides is not enough to cover the vast area of Mandeni.

5.1.3.5 Aim and objective of the research

The aim of this finding can be linked back to the research area that question that explore the ICT challenges affecting the readiness of the municipality to promote local economic development to the community of Mandeni. This question talks to efficiencies, infrastructure and collaboration.
Little is done by the municipality as this can be drawn from the responses of interviewees.

5.1.3.6 To refute or to concur

Based on the finding, the Municipality is not doing enough to efficiently use resources it has. There are efforts made to engage other partners to assist with infrastructure. For these reasons the Municipality is failing the ICT for development in Mandeni.

5.1.3.7 How data assisted to reach conclusion on this finding

An in-depth interview was helpful in this finding. The interviewees are directly involved with the communities. They are champions of LED in the municipality. One of them is born local.

5.1.4. Council Oversight role and awareness of ICT and LED

5.1.4.1.1 Finding discussion

The consensus from the finding is the fact that councillors do not pay much attention on ICT matters. This is due to lack of ICT skills. The finding is point to the deficiency in the ICT legal framework. ICT charter does not give priority to LED objectives in the IDP. Anything below the standard of IDP to councilors is worthless, hence no focus is given. The key performance indicators must be bold as driver of achieving vision that ICT should lead to development. Training and awareness to councillors is something that needs to be prioritized.

The tone of reports that are sent to Council are not helping the engagements to take place and constructive decisions.

5.1.4.2 Interpretation

The role of Council is to monitor and evaluate implementation of ICT projects that are driving promotion of LED and income growth. This does not exist in the Mandeni municipality. Minimum competency levels are put to improve the role of those entrusted with the monitoring function (Municipal Finance Management Act number 56 of 2003).

5.1.4.3 Explanation

In the reviews of responses, Council delegated its responsibility. It chose to give away its powers that are critical to deliver on their promise and the constitutional right of the communities. As a developmental state, budget must be set aside to capacitate councillors on ICT matters.

5.1.4.4 Evaluation

Already blame has been levelled against senior management for separate development on this issue (silo mentality). This is coming stronger with councillors. This can only mean disaster for the LED. My evaluation on this finding is that the municipality is not giving ICT the prominence it deserves as a vehicle for any business process in the municipality. The turnover in council based on current electoral system makes it difficult to preserve skills. This is another area of focus for future research.

5.1.4.5 Aim and objective of the research

The objective on this finding is to identify and improve deficiencies in Municipal governance structures to play meaningful oversight role even at ward level in adopting and implementation of strategies to achieve the set vision of LED using ICT.

5.1.4.6 To refute or to concur

The evidence is clearly simple. No oversight role is exercised by councillors. All respondents point to the lack of ICT skills on councillors. More training and workshop are needed. ICT is not treated as the bed rock for all business processes in the municipality. I therefore concur with the research finding.

5.1.4.7 How data assisted to reach conclusion on this finding

It is not difficult to reach conclusion on this finding. Reports to council are a testimony that none have ICT performance. Restructuring and engineering is key in

this area. Overwhelming response of interviewees has coming handy to reach conclusion.

5.1.5 Support from management and other structures

5.1.5.1 Finding discussion

All responses from interviewees points to one direction. The municipality lacks synergy due to shortcomings inherent with management. The management must give support to council through proper engagement of municipality's business. The delivery that is expected is first recommended by management. Since it has been established that there is no integration that exist between ICT and LED discussion issues, management is at the center of this discrepancy. The problem is structural. The way council's committees are structured, give problem to management. It is the duty of management to fix this. The fact that ICT has its stand-alone committee gives a perception that this is a different business process that must be dealt with in isolation.

5.1.5.2 Interpretation

In giving interpretation to this finding, management did not do its role of supporting the vision of the municipality (Aronson et al., 2013). The structural difficulties that exist in council, it is the mandate of management to unblock all hindrances.

5.1.5.3 Explanation

All business processes of the municipality are dependent on the information gathered, researched knowledge and stewardship given by management. ICT is the

tools to gather information analyse and store data for guided decision. If all this is lacking on the side of management, the municipal strategy is misguided. The municipal structures and systems are not supported.

5.1.5.4 Evaluation

Based on the response from data gathered through the interviews, management has failed Mandeni municipality. The realisation of better life of the residents in Mandeni is in jeopardy. The training provided need to be revised to change this trajectory.

5.1.5.5 Aim and objective of the research

The aim of this finding is to assess the capacity to produce recommendations by management and the ability to establish structures and systems that drives the IDP for development.

5.1.5.6 To refute or to concur

The finding is an indictment to management failure to support the strategy for successful achievement of LED through integrated ICT systems. I therefore concur with the finding.

5.1.5.7 How data assisted to reach conclusion on this finding

It is management themselves that respond in this fashion. This is revelation. This was a focused interview on people who are drivers of the systems.

5.1.6 Summary of findings

Table 1 summarises the findings linked to key themes of research. It shows that the municipality is not where it should in its ICT readiness.

Table 1: Summary of findings

Key themes	Findings
1. Challenges and limitations in legislation	The IDP as the main driver for development in Mandeni has an inherent risk of not being customised around ICT methodologies
2. The skill shortage amongst ICT staff in relation to understanding LED	Appreciation of local economic development by ICT staff is important. Management should also embrace ICT skills from their comfort zones.
3. The resource shortage	three major observations that hinder development through ICT. The question of access to internet, exclusion and the vastness of the area is overwhelming.
4. Council Oversight role and awareness of ICT and LED	The fact is that councillors do not pay much attention on ICT matters. This is due to lack of ICT skills.
5. Support from management and other structures	The municipality lacks synergy due to shortcomings inherent with management. The management must give support to council through proper engagement of municipality's business.

5.2 Chapter Summary

It is noticeable that all findings are in concurrence with the research question. Should these become recommendations? This is the function of the next chapter. Most of these observations are within the control of the Mandeni Municipality. Leadership must prevail.

CHAPTER SIX

Conclusions and Recommendations

6.1 Introduction

The current chapter concludes the study as a whole. The chapter summarizes the major research findings, summarizes conclusions and highlights the contributions of the study. The experiences and weaknesses of the study are also presented followed by specific policy recommendations and future research directions. This then leads to the chapter conclusion.

6.2 Conclusion

The questionnaire was able to come up with questions that assisted to reveal interview feedbacks. These interview feedbacks have a direct correlation with the research objectives. The interview feedback on legislative framework and its limitations on the ability to secure the benefits of LED were linked to research objectives that explored the legislative applicability to the establishment of ICT for development which concurs with the finding.

The second interview feedback was that the skill shortage amongst ICT staff in relation to understanding LED agenda is the course for failure which was linked to the objective that determines the ICT factors mainly being the skills that are essential to Mandeni municipality to deliver on local economic development. A finding concurs.

The third interview feedback developed was the resource shortages highlighting finance, infrastructure and collaboration linked to the objective that seeks to explore the ICT challenges affecting the readiness of the municipality to promote local economic development to the community of Mandeni. A finding concurs.

The fourth interview feedback identified was the capacity councilors to play their oversight role and if enough awareness is given of ICT and LED issues which was linked to the objective of identifying and improve on deficiencies in Municipal governance structures to play meaningful oversight role even at ward level in adopting and implementation of strategies to achieve the set vision. A finding on this interview feedback was concurred.

The fifth and the last interview feedback was an assessment of support from management and other structures that is linked to the objective that determines the adequate recommendations by management for ICT improvement to enhance LED for proposal to the decision makers. A finding on this interview feedback is also concurred.

6.3 Implications of this research

The implications of this research are huge. The Mandeni Municipality might need to transform to adapt to new practices. The mind set has got to change. This will change the attitude of governance structures of the institution when reviewing the policies to drive for better service delivery. Legal framework will have to be reviewed especially the internal policy of the Municipality that only address operations of ICT. The document has to be strategic. It must lay a foundation for LED to flourish by aligning to the IDP. Every business process of the municipality must be driven by ICT. Reprioritization aligned to LED must be the basis for budget. Collaboration with other stakeholders has to be business of the day. Reengineering of business processes must take place. This study might influence the industry since some policies are generic causing the inherent risk to other municipalities. The study will add in the existing body of knowledge in that the area of Mandeni municipality will receive the focused study that can be replicated to other municipalities of equivalent size and environment.

6.4 Limitations of the Study

The limitation of the study was the identification of the sample size of the targeted population. There was no scientific approach used due to the number of members available. Only eight among twenty members were selected.

6.5 Recommendations to the research problem

The recommendations to the problem are proposed as follows:

(i) The Integration of ICT as a mainstream function of the municipality. This will mean the elevation of ICT Manager as part of the top management structure of the municipality.

(ii) To set clear objectives for the role of ICT in the IDP of the municipality. This will mean the review of all policies and business processes on the basis of ICT being the vehicle to deliver on IDP deliverables.

(iii) Strategic collaboration with stakeholders who have resources to fund infrastructure and explore Private Public Partnership mechanism on ICT projects.

(iv) A focused training is proposed for councilors on ICT solutions and implementation of policies supporting LED.

(v) An organizational reengineering and change management focused to Mandeni management team on ICT's role as a main system driver.

(vi) Workshops and awareness to the larger community to be provided on the involvement of the municipality and facilities to engage LED.

6.6 Recommendations for Future Studies

As for the future studies as recommendation, the IDP is serving the objectives of services delivery on social issues. Therefore, IDP is not enough for LED. To made impact on income growth and development, the IDP must evolve to the level of economic development agenda issues.

Similar study may be done in another municipality to validate the observations in Mandeni Municipality.

6.7 Summary

This chapter provided a summary of the major findings as well as the overall conclusion of the study. The study showed that the Mandeni municipality is faced with many challenges that undermine its ICT readiness to facilitate the promotion local economic development that affect lives of communities it serves. The chapter also presented specific recommendations based on findings. The findings are clear. Firstly, the municipality is not capitalizing on the legislation that is present currently to align the organizational structure to ICT function. This goes a long way to ICT readiness. ICT charter does not reflect ICT function as an integral part of the strategic management in the municipality. Secondly, there is no constant skilling of personnel and the exposure of management to ICT issues in order to break the barrier of silo mentality. Thirdly, resources are not prioritised in the municipal's budget, as ICT is identified as a strategic tool. Due to limited resources, strategic partners must be identified to assist. This may include municipal bankers, state organs and collaboration with private partners. Fourthly, those given powers to do monitoring and oversight are not capacitated to perform those duties. This include extending the ICT services to communities to ensure participation on economic development issues. These findings if are addressed, will ensure municipal ICT readiness. In addition, the chapter presented future research directions.

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Appendix A

Interview Schedule Guide

Appendix B

Questionnaire

Appendix C

Informed Consent letter

Appendix D

Consent letter

Appendix E

Editing Certificate

Appendix F

Ethical Clearance Approval Letter

Appendix G

Tirnitin Original Report