

UNIVERSITY OF KWAZULU-NATAL

**THE EFFECTIVENESS OF PUBLIC SERVICE DELIVERY:
EVIDENCE FROM THE UBUHLEBEZWE LOCAL
MUNICIPALITY WASTE MANAGEMENT SYSTEM**

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DECLARATION

I, Ndabezitha Selby Tenza, declare that this research is my original research study and has not been submitted for any degree or examination at any other institution of higher learning. All the sources that I have used have been fully acknowledged and referenced appropriately.

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N. S. TENZA

DATE

ABSTRACT

The global campaign around the sustainability of the environment has resulted in much emphasis being placed on actions that can save people and the environment. Waste management is vital in this era of sustainability and is of utmost importance to ensure a livable environment for the flora and fauna. The need to create a livable environment has continuously resulted in service delivery protests in South Africa. At the municipal level, there are increasing media reports of service delivery protests over the provision of basic utilities. Against this backdrop, the study examined the effectiveness of the service delivery at the local government level, with specific reference to refuse waste management. The focus area of the study was the uBuhlebezwe Local Municipality (BLM). The aim and objective of the study was to review the waste management practices at the BLM, highlighting the shortcomings/challenges and the discrepancies between policy implementation and management practices. The data for the study was collected through one-on-one interviews and focus group discussions. The face-to-face interviews and focus group discussions were used to elicit information from the municipal officials and community members respectively, to address the research questions and objectives. A total number of five municipal officials were interviewed, while a total number of 45 households were involved in the focus group discussions. In gathering information, the researcher compiled an interview guide: a set of questions that guided the interviews. Content analysis, which involved the use of coding, themes, and clusters, was used for the interpretation and analysis of the data; and the findings from the primary data were supported by the findings from the secondary data. The findings of the study indicated some degree of inefficiency in the municipal refuse management logistics system, which sometimes resulted in illegal dumping. The illegal dumping occurred as a result of the inability of the municipality to purchase a dumping site, due to financial constraints. The study also revealed the unreliability of the transport system in the municipality as a result of the frequent breakdown of the municipal vehicles. The lack of an efficient community participatory platform was also determined, and found to result in service delivery protests. The study recommends the need for educational awareness regarding health hazards, and a 'reduce/reuse/recycle' approach to refuse waste.

Key words: service delivery, UBuhlebezwe local municipality, waste management

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DEDICATION

I dedicate this dissertation to my children, three daughters and two sons: Zimhlophe, Mendo, Bomikazi, Sgwili and Khulakahle.

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LIST OF ACRONYMS

B2B:	Back to Basics
BLM:	uBuhlebezwe Local Municipality
CDW:	Community Development Workers
DEA:	Department of Environmental Affairs
DPME:	Department of Performance Monitoring and Evaluation
DPLG:	Department of Provincial and Local Government
IAP2:	International Association for Public Participation
IDP:	Integrated Development Plan
IWMP:	Integrated Waste Management Plan
MWSP:	Municipal Waste Sector Plan
NEMA:	National Environmental Management Act
NEMWA:	National Environmental Management Waste Act
NDWCS:	National Domestic Waste Collection Standards
NGOs:	Non-governmental Organisations
NWMS:	National Waste Management Strategy
PPP:	Public-Private-Partnerships
SAMWU:	South African Municipal Workers' Union
SMEs:	Small and Medium Enterprises

DEFINITION OF TERMS

Local or municipal government: This refers to the sphere of government at grassroots level that has direct contact with community members. Within the scope of this study, the words local or municipal are used interchangeably.

Service delivery: This is defined as the provision of basic services like water, sanitation and electricity by the government.

Waste management: This refers to the generation, collection, transportation, disposal and treatment of refuse.

CHAPTER ONE: INTRODUCTION AND GENERAL OVERVIEW

1.1. INTRODUCTION

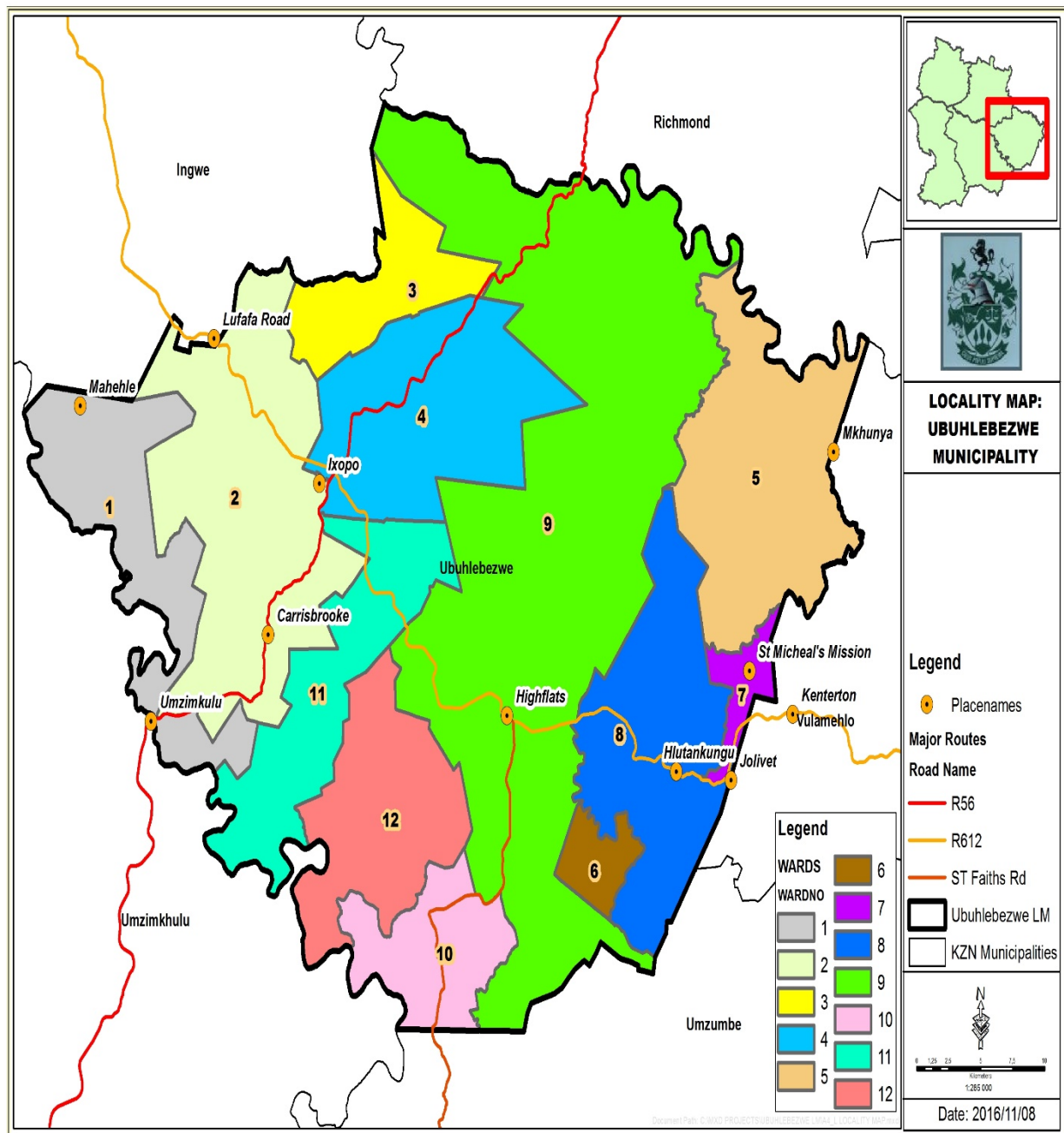
Service delivery has always received enormous attention, from both the citizenry and the government of South Africa, but the increased attention is as a result of the frequent service delivery protests reported by the media. The uBuhlebezwe (BLM) Local Municipality is not spared by service delivery protests. This chapter provides the introduction to the study, which covers the background information on the waste management system, the problem statement, the rationale for the study, as well as the aims and objectives. In addition, the significance of the study, a brief description of the methodology and the dissertation outline are provided.

1.2. BACKGROUND INFORMATION ON THE STUDY

In the new dispensation of democracy, citizens take the center stage of every government. This is well spelt out in the Constitution of South Africa (Act 108 of 1996), which highlights that the government is available to service the citizens by providing them with basic services. The provision of basic service delivery has increasingly caused various service delivery protests, resulting in the vandalisation of public properties, misunderstanding between the government officials and the community members, and sometimes even the death of innocent citizens. The motivation for the study was prompted by the perceived constant complaints from the residents of the municipality on the inefficient service delivery system surrounding refuse waste management.

The uBuhlebezwe Local Municipality is among the five local municipalities constituting the Harry Gwala District. The municipality is located along the eastern boundary of the Harry Gwala District Municipality, bordering the Ingwe, Richmond, Vulamehlo, Umzumbe and uMzimkhulu local municipalities (uBuhlebezwe Integrated Development Plan, 2012). The BLM has a total population of 112, 726 according to the uBuhlebezwe Integrated Development Plan (2012-2017). The economy of the BLM is mostly driven by agriculture, producing a variety of foods such as potatoes, beans, butternut, sorghum and maize (BLM IDP, 2012-2017). In addition, species of timber such as wattle, eucalyptus and pine are grown (BLM IDP, 2012-2017). A map of the BLM is presented in Figure 1.1.

Figure 1.1: uBuhlebezwe Locality Map



Source: uBuhlebezwe Municipality Integrated Development Plan 2012-2017 Pg12

1.3. PROBLEM STATEMENT

Public service delivery within the scope of this study is narrowed to refuse waste management. Increasingly, service delivery protests have continued to capture news headlines almost on daily basis. Media reports show violent demonstrations, destruction of public infrastructure, injury and sometimes the death of innocent citizens. There is a small but growing number of research studies on the area of refuse waste management. In South Africa,

not much research has been conducted on refuse waste management in relation to service delivery. This study therefore addresses the question: what are the causes of the inefficient waste management system in the BLM?

1.4. RESEARCH QUESTIONS

The research questions addressed in the study include the following:

- i. How does the consultation platform impact on the refuse waste management system in the uBuhlebezwe local municipality?
- ii. To what extent has public participation contributed to the uBuhlebezwe local municipality service delivery issues?
- iii. To what extent does the existing control mechanism contribute to the waste management system in the uBuhlebezwe local municipality?

1.5. RESEARCH AIM AND OBJECTIVES

The research study was aimed at investigating the refuse waste management system in the BLM; ascertain the causes of the continuous service delivery protests; and highlight the consultation and public participatory platform and their impact on the BLM waste management systems.

Similarly, the overall objective of this study was to examine the underlying factors affecting refuse waste management within the BLM. The study achieved the following objectives:

- i. Analysed the impact of the consultation platform on the refuse waste management system.
- ii. Assessed the role of public participation in the BLM service delivery issues.
- iii. Examined the impact of the existing control mechanism on the BLM refuse waste management system.

1.6. SIGNIFICANCE OF THE STUDY

This study has both social and economic significance. First of all, the study seeks to establish the reasons behind the ineffective refuse waste management system in the BLM. The results of the study provide insight into the need to improve the gray areas in the service delivery functions in the BLM, as the municipal officials might be better prepared in terms of knowing and prioritising the needs of the communities. For the communities, the study shed more light on how service delivery, functions within the broader municipal area. This is important

because the negative perception regarding the ineffective waste management system points solely at the government. The findings from the study serve as a guide for decision makers in policy formulation and implementation, and provide general insight into the roles of all stakeholders concerned in the service delivery issues.

1.7. RESEARCH METHODOLOGY

This study is considered a qualitative study and utilised data collected through face-to-face interviews and focus group discussions. A qualitative study allows for in-depth elicitation of information from the respondents, which helps in addressing the research objectives. The respondents have been drawn from the community members and the government officials in the uBuhlebezwe Local Municipality. The sampling strategy used is considered a non-probability purposive sampling technique. This is so because the researcher identified the respondents who conform to a specific set of criteria to provide the needed information to address the research question. Two sets of questions were compiled to guide the interview processes for the face-to-face interview and focus group discussion respectively. The findings of the study were analysed using content analysis, and to ensure the anonymity of the respondents, the researcher used coding, themes, clusters and memos, where necessary.

1.8. ETHICAL CONSIDERATIONS

Ethical clearance was granted by the University of KwaZulu-Natal Research Office, and permission to carry out the research in the municipal area was sought from the relevant authorities of the uBuhlebezwe Municipality. The objectives of the study were clearly explained to the respondents and informed consent forms signed before carrying out the interview and focus group discussions. The participation in the research study was solely on a voluntarily basis. The respondents were assured that anonymity and confidentiality would be maintained; and informed of the need for free withdrawal from the research at any stage without any negative consequences.

1.9. DISSERTATION OUTLINE

1.9.1 Chapter one introduced the study by highlighting the background information of the study, the aim of the study, the research objectives, as well as the significance of the study.

1.9.2 Chapter two reviewed the existing literature on service delivery in relation to waste management within the South African context. The discussion pertains to aspects of the

theories, models and legal frameworks underpinning waste management, waste generation, and the collection and disposal of the waste. The predominant focus area is household refuse.

1.9.3 Chapter three outlines the research methodology, which includes: the research design, the research method, the target population and sampling, data collection methods, data analysis, ethical considerations, as well as the limitations of the study.

1.9.4 Chapter four reports on the presentation and analysis of the research findings.

1.9.5 Chapter five concludes the study by summarising the main research findings, giving recommendations and highlighting areas for further research.

1.10. CONCLUSION

Refuse waste management is considered a critical function of the municipality. The municipality is mandated to remove and convey refuse to landfill sites; ensure environmental cleanliness; and manage landfill sites. The process of refuse waste management involves collection and transportation from various points; and disposal involving recycling, reuse, burning, etcetera. Within the scope of this study, the chapter provides information on the background of the study, the problem statement and purpose of the study, the contribution of the study, the research questions, research objectives and the outline of the study. The next chapter covers the literature on the research topic.

CHAPTER TWO: LITERATURE REVIEW ON WASTE MANAGEMENT

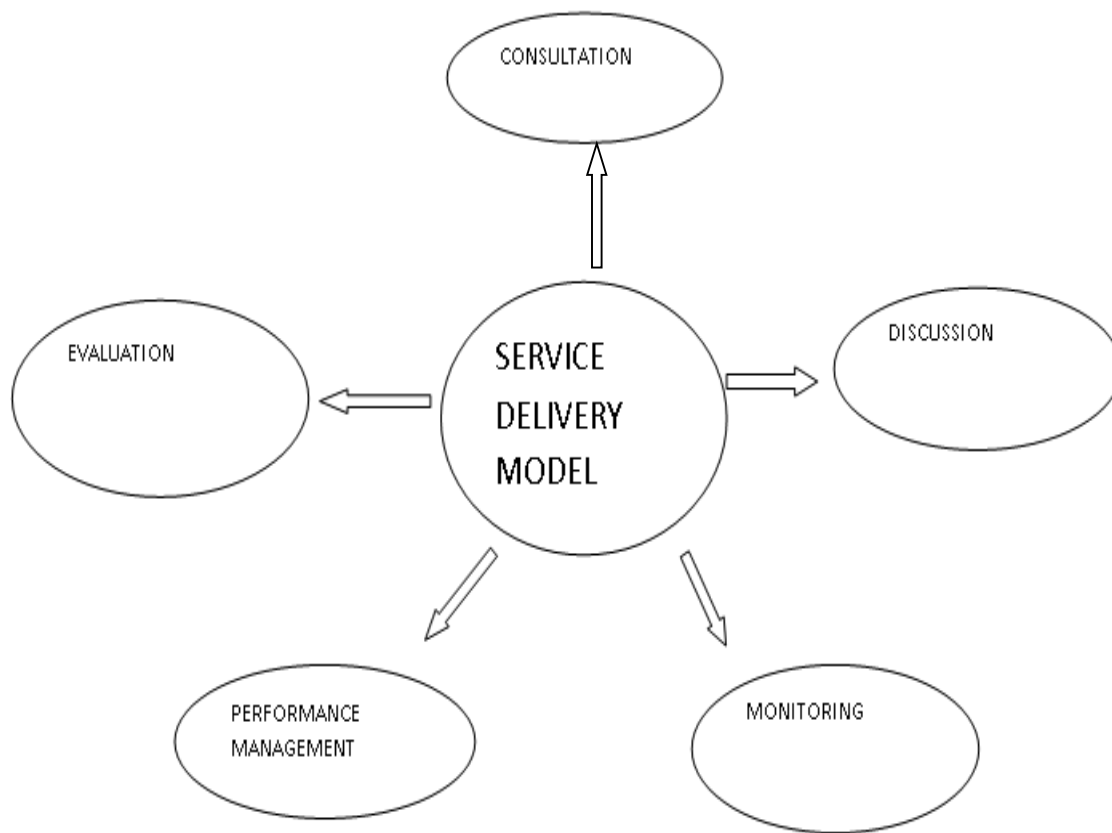
2.1 INTRODUCTION

This chapter revisits the existing literature on waste management. The reviewed literature covered the theoretical dispositions on refuse waste management systems. The chapter also discusses the concept of waste management and its application within the South African context. The discussion on the concept of waste management covers information on legislation, policies, waste classifications and practices. Within the context of this study, the research focuses predominantly on solid waste generated at the household level, commonly known as municipal solid waste or household refuse. In addition, the various challenges facing waste management were reviewed.

2.2. THE FRAMEWORK UNDERPINNING THE STUDY

Increasingly, the debate on public service delivery has taken center stage across different schools of thought. The advent of democracy has provided hope for citizens, especially the disadvantaged, for the provision of basic services. As such, local government has always been the closest level of government to the citizens and takes the utmost responsibility in delivering basic services, such as the provision of water, electricity, refuse collection, cleaning of roads etcetera. Though South Africa has well-crafted policies, frameworks and legislations for effective service delivery, the associated challenges appear to have resulted in a level of delivery far below expectations (Ngubane, 2005; Pretorius and Schurink, 2007). Service delivery can be noted as a benchmark of good governance and vice versa. According to Ngubane (2005), a framework of service delivery that equates to good governance has six components namely; consultation, discussion, monitoring, performance management, and evaluation (see Figure 2.1).

Figure 2.1: A Service Delivery Model



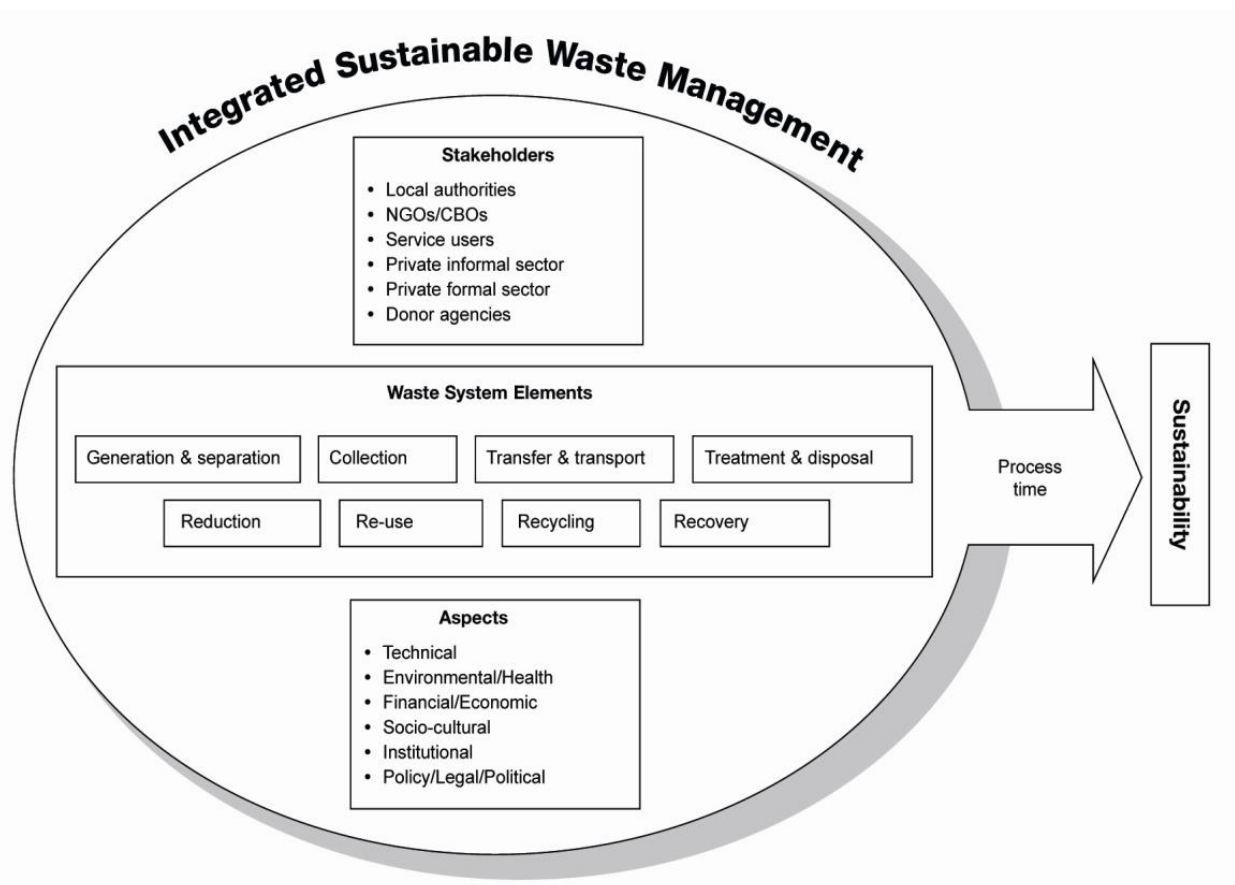
Source: Ngubane, M. B. (2005:142). An evaluation of service delivery at eNdongakusuka Local Municipality. Unpublished PhD thesis.

Within the framework proposed by Ngubane (2005), consultation refers to the need to involve the citizens on issues of social problems. By involving citizens, issues of social welfare are discussed, individual or group views are evaluated and integrated into the decision-making processes. The monitoring and evaluation serve as performance management tool for rating of services.

Service delivery in the area of refuse waste management has gained much attention of late, due to the frequent related unrest. In the words of Sir David Wilson, “solid waste management and good governance are two sides of the same coin”. The level of solid waste management in any area clearly indicates the state of that particular area (Scheinberg, 2008). Going by the words of Wilson, waste management remains one of the developmental challenges facing South Africa. The drive is towards maintaining a sustainable waste management system. A sustainable waste management approach addresses the ‘who’, the

‘what’, the ‘why’ and the ‘how’ of waste management and change. According to IJgosse *et al.*, (2004), an Integrated Sustainable Waste Management (ISWM) in Figure 2.2 recognizes three important components which include the stakeholders, waste system and its elements, as well as sustainability aspects. The stakeholders represent all concerned bodies in the waste management system. Every stakeholder plays an important part in ensuring a sustainable waste management system. Similarly, the waste system elements represent the various activities that the stakeholders are involved in. The component ‘sustainability’ means the system is healthy and is not going to collapse, provided there is a balance in the environmental, institutional, financial, operational, social, legal and political aspects (IJgosse *et al.*, 2004).

Figure 2.2. The Integrated Sustainable Waste Management (ISWM) Framework



Source: IJgosse *et al.* (2004:18)

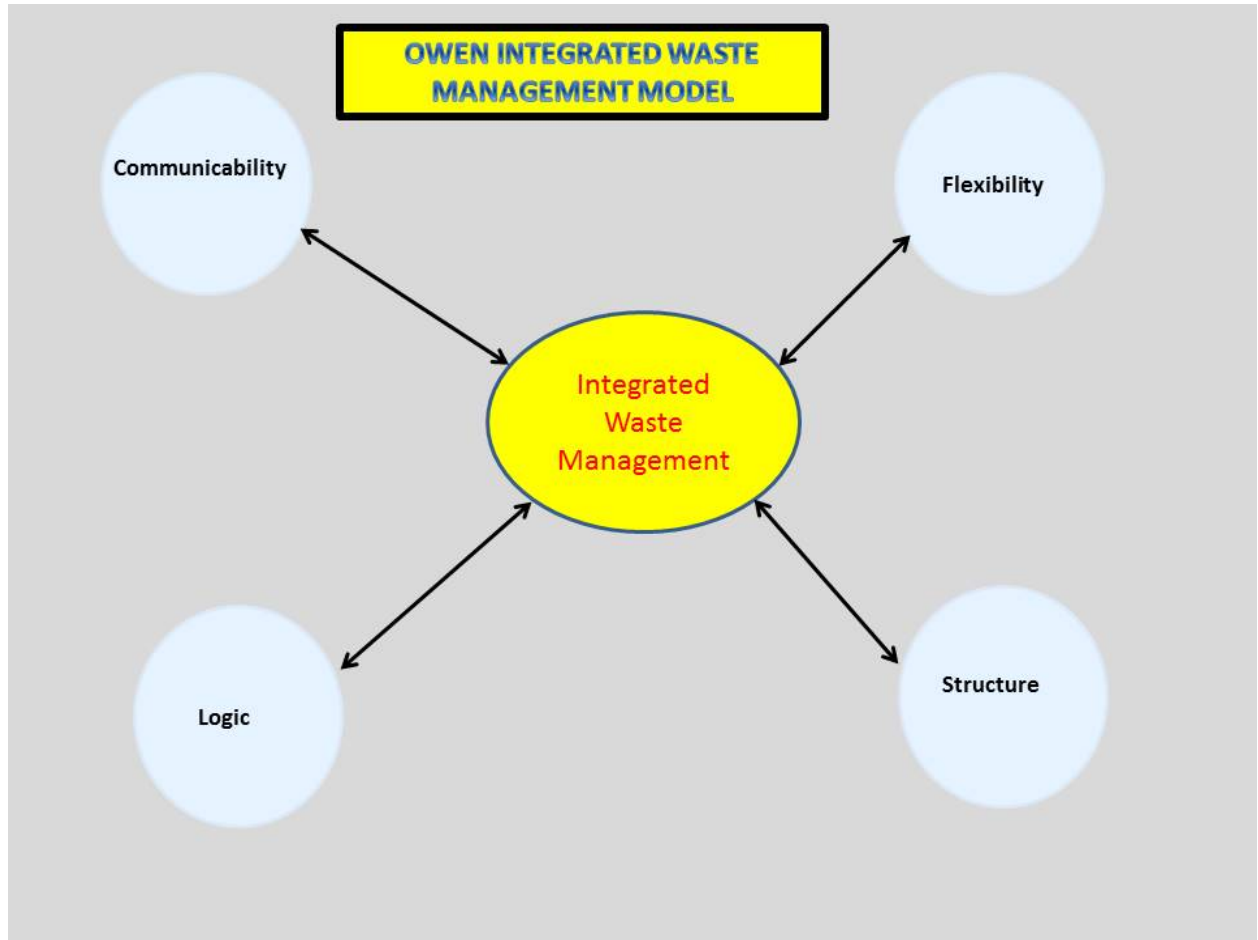
With the ISWM framework, various activities are linked and interrelated. The legal, institutional and economic activities are considered in prevention, recycling and composting

of waste for a functional system. Choices made around the set-up, the issue of waste storage, how it is collected and transported, all rely on frequency, as well as the timing of collection.

At the municipal level, IJgosse *et al.*, (2004:8) posits that the ISWM first addresses the use of a planning process to support institutional development and good environmental governance for a sound waste management plan. Secondly, the financial sustainability component addresses the cost recovery, budgeting, investment plan and, to a certain degree, the economic concerns of the municipality. The third component views the importance of communication in the waste management system. At the municipal level, the core communication process is centred between the government and the citizens. This is important in the respective roles each stakeholder plays, such as the recycling process in the supply chain. Communication can be in different forms namely: educational, instructional, participation, feedback, strategic and reinforcement (Scheinberg, 2008). Educational communication addresses mostly information; the content of instructional communication focuses heavily on instruction while the participation stimulates a contribution in the process of decision making or priority setting. Strategic communication allows for the use of interpretations to change power relations or opinions (Scheninberg, 2008). From another scholarly point of view, strategic communication is a pre-requisite and an instrument of effective policy making on waste management, which among other media or channels of communication, is also conveyed by various channels such as newsletters, newspapers, online and public participation forums (Owen, 2003). Feedback provides an opportunity for criticisms and serves as a benchmark for the process. Reinforcement or advertising uses images, slogans and pictures (for example, ‘no dumping of refuse’) to address a change in behaviour and encourages familiarity (Scheinberg, 2008). These forms of communication play important roles in a municipal ISWM system. Communication is considered a community and stakeholder participation process needed to build trust, share information and encourage continuous feedback from all stakeholders. As such, the municipality is able to listen as well as promote activities that encourage sustainability while the citizens shift from passive recipients to active participants in the waste management system.

Communication is well supported in other waste management models such as that of Owen (2003), see Figure 2.3. The four pillars of the framework are communicability, flexibility, logic and structure.

Figure 2.3: Integrated Waste Management Model



Source: Owen (2003).

The component, communicability entails the ability of any municipality to effectively communicate key elements to the relevant stakeholders. Owen (2003) explains that the concept of communicability is an essential element of a waste management system because it enables the municipality to send information leading to the minimisation of waste generation, and the maximisation of waste re-use, recycling and material recovery. Davidson (2011), asserts that efficient communication is essential in developing waste management activities, together with the community. In the same vein, Owen (2003) opined that efficient communication in waste management involves advocating in clear and simple terms, and outlining the roles and responsibilities of all stakeholders so that desired outcomes such as the reduction or elimination of the use of non-recyclable waste, are achieved. Hence,

communicability involves a chain of events starting from communicating a vision, conducting negotiations and decision making, developing and implementing plans, to monitoring the environmental impacts of waste disposal. In addition, communicability involves communicating factual knowledge on waste disposal issues, universal language and providing an efficient management system (Tchobanoglous *et al.*: 2006 Owen, 2003).

Similarly, flexibility revolves around framing and analysing quantitative and qualitative information across different scales. It involves data collection, analysis and a result which enables the municipality to develop a flexible and comprehensive approach to waste management. Flexibility gives rise to a diversity of waste management choices that a municipality uses as an element of a comprehensive integrated waste management system; which then gives room to adjust to the turbulent socio-economic and environmental conditions (McDougall *et al.*, 2001; Tchobanoglous and Kreith, 2002). Thus, Owen's concept of flexibility requires that the Integrated Waste Management system should vary across regions and organisations, despite the fact that there are several elements such as efficiency in material handling, proper disposal, risk assessment and timeliness of disposal, which are universal to all waste management practices.

Furthermore, structure is an important element in the management of municipalities. Structures are created to identify and formulate clear key goals and values needed for solving complex problems. The concept of logic addresses the probability and consequences related to particular options (Owen, 2003). Logic is essential as it enables a holistic approach which evaluates the general environmental issues, as well as the costs associated with the system, further paving the way for strategic planning. According to Tchobanoglous *et al.* (2006), logic entails the analysis of the trade-offs existing within the options that are available, such as the associated costs, risks, waste volumes, as well as the possible behaviour changes. Logic in waste management includes: utilising the knowledge gained from calculating the probabilities and consequences to identify the various possible options which would enable the management of the waste, with the estimates in costs, potential partners, the processing facilities that are available, risk assessments and the standards of product available for recycling some types of wastes and remedying the identified consequences (Davidson, 2011). Pires *et al.* (2010) asserts that logic is a product of public feedback that often helps to ensure that the assumptions made are accurate, in as much as it also helps in building an effective response mechanism. Such a system provides information and feedback to define, evaluate,

optimise and ensure the effectiveness of the system. The effectiveness of the system can be achieved through the use of systems engineering models which include simulation, forecasting and optimisation models, cost benefit analysis, integrated modeling systems, or those system assessment tools like decision support and expert systems, the management of information systems, life cycle assessment, scenario development, risk assessment, material flow analysis, strategic environmental assessment, socio-economic assessment and environmental impact assessment (Pires *et al.*, 2010). In conclusion, this research study draws concepts from the service delivery model and the ISWM.

2.3. LEGISLATIVE FRAMEWORK ON MUNICIPAL SOLID WASTE MANAGEMENT

Legislation on solid waste management is intended to protect the public and assure the citizens of their right to a safe and healthy environment. The management of solid waste is guided by the policy documents such as:

2.3.1 The South African Constitution (108 of 1996)

The Section 24 of the Constitution's Bill of Rights elaborated on the environmental rights of the citizen. According to the Constitution, every citizen of the country is entitled to: a safe and healthy environment; protection of the environment for its current benefits and for future generations; and the promotion of conservation for the prevention of ecological degradation (RSA1996).

2.3.2 National Environmental Management Act (NEMA) (107 of 1998)

The National Environmental Management Act advocates for sustainable development and the implementation of an environmental management plan through waste minimisation and environmental protection. Section 2 (4) (a) states:

“...waste is avoided, or where it cannot altogether be avoided, minimised and re-used or recycled where possible and otherwise disposed of in a responsible manner [section 2(4)(a)(iv)]. That a risk-averse and cautious approach is applied, which takes into account the limits of current knowledge about the consequences of decisions and actions [section 2(4) (a) (vii)]...that negatively impacts on the environment and on people's environmental rights be anticipated and prevented, and where they cannot be altogether prevented, are minimised and remedied [section 2(4) (a) (viii)]...the costs of remedying pollution, environmental degradation and consequent adverse health

effects and of preventing, controlling or minimising further pollution, environmental damage or adverse health effects must be paid for by those responsible for harming the environment” [section 2(4) (RSA, 1998).

2.3.3 White Paper for Integrated Pollution and Waste Management for South Africa (Notice 227 of 2000)

The White Paper for Integrated Pollution and Waste Management for South Africa (Notice 227 of 2000) advocates for an all-inclusive and incorporated management system to prevent pollution and to minimise waste at the point of source. The advocacy aims to completely stop pollution of the environment by educating the public on environmental awareness and reinforcing the legislation on waste management (RSA, 2000).

2.3.4 The National Environmental Management Waste Act (59 of 2008)

The Section 28 of NEMWA (also referred to as the ‘Waste Act’), stipulates the need for everyone, including state organs, to prevent and minimise pollution. Among other things, the Waste Act provides for the protection of the environment by doing the following:

- reducing the consumption of natural resources,
- reducing and avoiding producing waste,
- recovering, re-using and recycling of waste,
- treating and considering disposing of waste as the last resort,
- avoiding pollution and ecological dilapidation,
- promotion of the effective delivery of waste services, and;
- enhancing the integrated waste management planning and reporting (RSA, 2008).

The NEMWA is the principal legislation underpinning waste management in South Africa. It also stipulates that whoever causes pollution or environmental degradation is liable and must face the consequences (RSA, 2008). In support of this, the Polokwane Summit of September 2001 reinforced waste management through reducing, re-using and recycling, so as to protect the environment and to ensure sustainable development. The goal of the summit to design a strategy for zero waste by 2022 resulted in the following declarations: the execution of a national waste management system; raising awareness on waste minimisation and recycling, waste information and assessment; calling on private people to launch ground-breaking waste

management activities and programs; and encouragement and contribution to a safe and healthy waste recovery programs (RSA, 2001).

2.3.5 National Domestic Waste Collection Standards, GNR 21 (2011)

The standards are directly linked to service provision by municipalities, and are designed to ensure acceptable, affordable and sustainable services to the citizens. The levels of services provided are premised on four categories which include on-site disposal and kerbside collection. The standards encourage the separation of waste at source, while at the same time promoting recycling. It also highlights that clear waste management guidelines should be provided. In the cases where kerbside content is not collected but it is recyclable, the municipality, the community and the recycling sector must work together for removal of the waste. It also noted that communal collection areas, should be accessible and clearly demarcated, with litter containers (National Domestic Waste Collection Standards, GNR 21, 2011).

2.3.6. The National Waste Management Strategy (2011)

According to the RSA (2011), the National Waste Management Strategy (2011) (NWMS) strives to fulfil the objectives of the Waste Act as it seeks to improve waste management. The rapidly growing and urbanised population is continuously putting strain on the environment, which has a limited ability to absorb waste. The NWMS is thus meant to ensure that the provisions of the Waste Act (59 of 2008), as indicated earlier, are implemented. The strategy advocates for the minimisation of waste, re-using, recycling and recovering of waste, while also focusing on implementing the waste management hierarchy (as shown in Fig 2.1), with the crucial objective of avoiding sending waste to the landfill.

2.4 THE CONCEPT OF WASTE AND WASTE MANAGEMENT

Waste can be defined from different perspectives. “Waste or rubbish, trash, junk, garbage, depending on the type of material or the regional terminology, is an unwanted or undesired material or substance. It may consist of the unwanted materials left over from a manufacturing process (industrial, commercial, mining or agricultural operations) or from community and household activities. The material may be discarded or accumulated, stored, or treated (physically, chemically, or biologically) prior to being discarded or recycled” (Dashmishra, 2011:26). From another point of view, the National Environmental

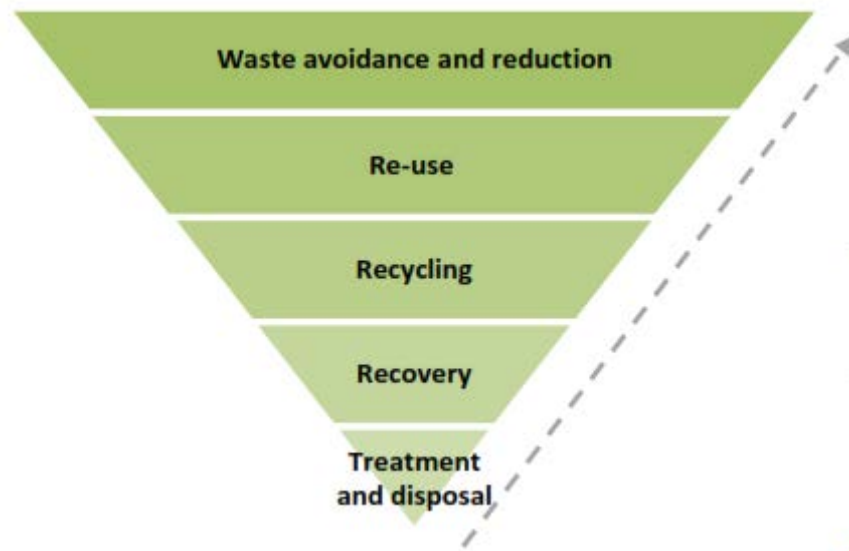
Management Waste Act (RSA, 2008) states that ‘waste’ refers to any substance, whether it can be reduced or not, whether it can be re-used, recycled and recovered:

- a) that is in excess, not wanted, discarded, or disposed of,
- b) which the person who generated it has no further use of,
- c) that must be preserved or thrown away,
- d) that is regarded as waste by the Minister by notice in the Gazette,

The waste described above includes that which is generated by the medical, mining and other sectors. Waste material can be liquid, solid or gas and comes from different sources which include households, agricultural processes, industrial residues, commercial and sewage. Solid waste is referred to as “organic and inorganic waste materials produced by households, commercial, institutional and industrial activities that have lost value in the sight of the initial user” (RSA, 1998). It is often regarded as municipal waste and comprises of mostly garbage. As mentioned earlier, the study focused on household waste only. According to Mugambwa, (2009), waste management includes the gathering, carriage, processing, reprocessing or disposal of waste materials.

The National Waste Management Strategy requires every municipality to develop and implement an integrated waste management plan and encourage the public to avoid, minimise and recycle the waste using a hierarchy (see Figure 2.4). According to the DEA (2012:9), the waste hierarchy emphasises five key elements.

Figure 2.4: Waste Management Hierarchy



(Department of Environmental Affairs, Annual Report, 2012:9)

- i. Avoidance and reduction addresses the need for lean manufacturing. The concept of lean manufacturing allows for the minimisation of waste in the designing and production of goods and services.
- ii. Re-use emphasises the use of materials in the same way or differently, without altering the shape or elements of the material. The approach is aimed at re-using products when they reach the end of their life span and by so doing, they become inputs for new products.
- iii. Recycle involves the separation of materials from the waste stream and then process them into new products or raw materials.
- iv. Recovery has to do with the reclamation of certain elements or materials, or turning the waste into fuel. At this level, if the waste cannot be reduced further, it can be discharged to landfill, which is regarded as the most affordable means to manage the final phases of waste.
- iv. Treatment and disposal are the 'last resort' in the waste management measures hierarchy. Treatment is the process designed to minimise the environmental effect of the waste by altering its physical properties, or the separation and destruction of the toxic components of the waste. Disposal, on the other hand, entails burying waste into the land. Thus, the treatment, the processing and the disposal of waste occurs according to the principles of environmental justice, as well as the equal access to environmental services, as described in the National Environmental Management Act 107 of 1998 (NEMA).

Thus, the overall emphasis on waste management is generally to promote health and the environment, create jobs and support the nation's economy. The management of solid waste has, however, continued to pose developmental challenges to South Africa.

2.5. REFUSE WASTE MANAGEMENT IN SOUTH AFRICA

Studies have shown a positive relationship between income and waste generation. High earning people tend to generate more waste as they buy and consume a variety of goods or products, which produces a lot of inorganic materials like glass, metal, textiles and plastics into the waste stream (Medina, 2010:8). Higher income thus increases waste production, which impacts on the composition of waste. Similarly, an increase in population has a positive impact on waste generation and its management system. Literature has documented that increases in population and income growth put strain on the municipal waste management resources (Beall *et al.*, 2010). The management of waste involves the removal of refuse from the point of generation to the point of disposal. The responsibility lies mostly on the public sector at municipal levels, though in some developed nations the private sector can be contracted to do refuse management.

The roles of local government are dated back to the historical evolution of local government. The concept of local government in South Africa dates back to the 17th and 18th centuries when the Dutch East India Company (DEIC) and the British Settlers first arrived in the Cape (Ngubane, 2002; Powell, 2012). It was noted that the influence of the Dutch and English resulted in the growth of a hybrid local government system in South Africa. The period of the 18th century saw the introduction of the three level/tiers of government namely local, provincial and national. These different levels of government got integrated in the South African system to ensure inclusivity within the society. As such, local government became and remains the closest sphere of government to the citizens and is therefore invaluable in the provision of goods and services, as well as the development of the local environment. The local government is mandated to identify the needs of its local communities in order to enhance the general welfare of the communities (Nel, 1998:79). As such local government is “vested with prescribed, controlled governmental powers and sources of income to render specific local services and to develop control and regulate the geographic, social and economic development of the defined local areas” (Meyer, 1978:10). Section 152(1)(a) of the

Constitution of the Republic of South Africa (108 of 1996) indicates the roles of local government as follows:

- i. providing democratic and responsible government for the local communities;
- ii. ensuring the sustainable provision of services to the local communities;
- iii. enhancing socio-economic development;
- iv. promoting safety and a healthy environment for the communities; and
- v. promoting public participation in local governance.

Furthermore, Section 73 of the Local Government Municipal Systems Act, 2000 (Act 32 of 2000), stipulates the role of the municipality as that of giving effect to providing the Constitution and prioritising the basic needs of the local community;

- i. promoting the development of the local community; and
- ii. ensuring that access to basic municipal services is granted to all community members

In this view, municipal services must therefore be:

- iii. accessible and equitable
- iv. be provided in a conducive manner, while caution should be practised in using the available resources;
- v. financially and environmentally sustainable; and
- vi. reviewed on a regular basis, so as to upgrade, extend and improve when necessary

As a government entity, municipalities are obliged to structure and manage administration, budgeting and planning to ensure that they prioritise citizens' basic needs and services, while also encouraging the socio-economic development of their communities. Municipalities are expected to partake in development programs at both national and provincial level, and in turn administer these to local government (Municipal Systems Act, 32 of 2000). The role of the local government is highlighted in its powers and functions, some of which tend to be decentralised from both the national and provincial governments. Its developmental role (as indicated in the White Paper on Local Government, (RSA,1998), is fundamental to the purposes of municipalities. As such, municipalities are at the forefront of service delivery and therefore expected to be innovative in their involvement of communities in municipal affairs (Boshoff and Mazibuko, 2008:14; Mkentane, 2013). Municipalities are therefore mandated

by the Constitution to satisfactorily deliver services which include refuse removal, sewage collection and disposal, water supply, health services, electricity and roads and storm water, to mention a few (Boshoff and Mazibuko, 2008:14). It is of utmost importance that local government should portray public accountability, good governance, transparency, the promotion of an equal society and socio-economic rights (Platjies, 2011). Literature has, however, indicated the ineffectiveness of municipalities in meeting the citizens' expectations in the areas of service delivery.

2.6. AN OVERVIEW OF WASTE MANAGEMENT IN THE UBUHLEBEZWE LOCAL MUNICIPALITY

The uBuhlebezwe municipality developed an Integrated Waste Management Plan (IWMP) in 2015, which is currently being implemented (BLM IDP Review 2016/2017). The goal of the IWMP is to improve citizens' quality of life through the provision of basic and affordable services, healthy and safe environment, poverty eradication, while at the same time sustaining the surrounding area.

The provision of basic services remains the focus point in developing integrated waste management. The municipality adopted a weekly routine on waste collection, from the residential areas, and twice a day from business areas. The Department of Social Development's, Community Development Unit is responsible for waste management in municipalities. The unit is complimented by two trucks, one skip bin, one compactor truck and 23 general workers with two supervisors (BLM IDP Review 2016/2017:126).

According to Stats SA (2011), 12 per cent of households are provided with waste removal services on a weekly basis, 72 per cent have an individual disposal facility and 3 per cent are serviced by a communal facility. There are no collection services and formal disposal of waste in the rural areas, even though they are part of municipalities. In addition, there are no collection points for domestic waste and no transfer points (von Mayer, 2014). Waste from the municipality and its environs is disposed of at the uMzimkhulu landfill site. The household waste, estimated at 6.1t/d with a monthly cost of R43 472/month is transported in RELs and skip loaders to the uMzimkhulu landfill site (BLM IDP Review 2016/2017:127). According to the BLM IDP Review (2016/2017:208), waste recycling is not practised in an official form within the municipality: though the waste that is transported to uMzimkhulu is reportedly separated to recover recyclables, there is no documented evidence to that effect.

The municipality does not have a dumping site, has an insufficient number of compactor trucks and street refuse bins, and these bins are not placed at strategic positions. In addition, due to frequent vehicle breakdowns, the skipper truck takes one skip bin per trip to the uMzimkhulu landfill site (BLM IDP Review, 2016/2017:208). As a result, the uBuhlebezwe municipality uses the district wide environmental management framework to deal with environmental management matters. With the municipality being predominantly agricultural, it is critical for the municipality to recognise the need to ensure conservative agricultural practices. A partnership with the Department of Agriculture, through extension officers, assists in advising communities on good agricultural practices. The municipality has also adopted by-laws that assist in ensuring compliance with the community in different aspects of environmental management, especially in the areas of managing a built environment in town (von Mayer, 2014).

2.7. CHALLENGES FACING WASTE MANAGEMENT

Among the challenges faced by local government and leading to the breakdown of service delivery are poverty, institutional incapacity, inadequate responses to service delivery, key municipal infrastructure services collapsing, viability, poor public participation, corruption, as well as incapacity and skills development. Other challenges also include the mismanagement of funds by authorities, mismatch between local and national government strategies, as well as the policy framework (Chambers *et al.*, 2012; Managa, 2012; COGTA, 2014).

Public sector has been identified with low institutional capacities due to incapable human resources. The lack of capable human resource has resulted in the weak public service delivery issues. At the municipal levels, the inefficiency is manned by the low rate collection of revenues, poor management of public infrastructure attributed to poor skills development. The inefficient skills development has resulted in mis-match between national and local government strategies and policy framework. At the local government levels, there has been a limited geographical extent of the waste management services. Furthermore, the corrupted practices amongst public representatives and business, is a reflection of the total breakdown of municipalities, in terms of good governance principles and values that should be guiding the local government officials. This has been evident in the mismanagement of funds, use of

services as patronage tools etcetera. Jeffares and Green (2014), opined that mismanagement of waste within municipalities are mainly due to lack of higher order waste management initiatives. Waste generation is high at municipal level thus, the recycling process continues to pose a challenge to government. Jeffares and Green (2014), noted that some municipalities generate 5600-6900 tonnes of waste material which can be recycled but are not recycled. Part of the challenge in recycling the waste is financial constraints. For example, the cost of transporting solid waste to uMzikhulu is estimated at R43 472 per month (Jeffares and Green, 2014). In addition, financial constraint continues to pose transportation challenges leading to the widespread of illegal dumping, especially in the rural and informal settlement areas. The lack of disposal records and the lack of licensed facilities impact on the effective waste management by the municipality (Jeffares and Green, 2014).

At municipal level, the public representatives are socially distance from the general populace, which is a cause for concern. It has been posited that “good local governance is not just providing a range of local services, but also about preserving the life and liberty of residents, creating space for democratic participation and civic dialogue, supporting market-led and environmentally sustainable local development, and facilitating outcomes that enrich the quality of life of residents” (Shah and Shah, 2006:46). As such, public participation is viewed as citizen driven process and not the traditional top-down communication process. The South African legislation highlights the need for public participation in local municipalities’ affairs. In addition, Shah and Shah (2006:46) indicate that “... good local governance is not just providing a range of local services, but also about preserving the life and liberty of residents, creating space for democratic participation and civic dialogue, supporting market-led and environmentally sustainable local development, and facilitating outcomes that enrich the quality of life of residents”. The concept of public participation emanates from “the belief that those who are affected by a decision have a right to be involved in the decision-making process” (International Association for Public Participation (IAP2, 2002). The IAP2 further defines public participation as “any process that involves the public in problem solving or decision making and uses public input to make decisions” (IAP2, 2002). Within the concept, public participation entails the deliberate involvement of citizens with the public officials, on social development issues. The principle thus highlights citizens’ rights to information, to comment and forward grievances, as well as to engage in decision making processes regarding their governance (Smith, 2003:4). The essence of public participation is that it enables access to the information by stakeholders, the promotion of communication of all the

stakeholders' interests and decisions. Govender *et al.* (2011) further argues that public participation is essential for the development and good governance, as it authenticates government actions and legitimises the quality of the decisions that authorities make (Theron and Mchunu, 2016:120). Furthermore, active citizen participation promotes dialogue between the authorities and the stakeholders (Theron and Mchunu, 2016: 171).

2.8. CONCLUSION

This chapter provided literature on the concept of waste management. The theoretical framework underpinning the study was discussed, together with the various legislations underpinning the waste management in South Africa. In addition, an overview of waste management in the BLM and the challenges of the municipal waste management system were reviewed. The chapter indicated that issues affecting effective service delivery include the lack of institutional capacity by the municipalities, the legislative frameworks underpinning service delivery by the municipalities, the lack of skilled and competent personnel to carry out the service delivery activities, and alleged corruption and fraud among municipal officials. The challenges were linked to the ineffective delivery of the public services such as refuse removal, poor infrastructure etcetera. The next chapter is a detailed description of the methodology applied in order to achieve the objectives of the study.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1. INTRODUCTION

Municipal solid waste management is one of the basic services provided to citizens, which reflects the attitudes and perceptions of general public served by the municipality. Various service delivery protests by community members have been linked to the quality of the services provided by municipalities. In the previous chapter, literature pertaining to the concept of waste management was reviewed, as well as the theoretical expositions and legislative framework. In addition, various challenges facing waste management systems were reviewed. To understand the root causes of the challenges related to the delivery of public services, it is important to understand the view of the citizens concerned. As such, qualitative data was collected from the uBuhlebezwe local municipality. This chapter addressed the data collection processes and analysis. Data were collected face-to-face interviews and focus group discussions. The chapter covered discussions on research methodology which include: research design adopted, the population, sampling characteristics, the location of the study, the research tool, data analysis methods, information on ethical clearance.

3.2. RESEARCH DESIGN

Research design entails the blueprint that guides the procedures in which data are collected and analysed (Babbie, 2012). Sekaran and Bougie (2013) perceive research design as the blueprint for collecting, measuring and analysing data, on the basis of the study's research questions. In other words, a conceptual configuration of the study. This study is considered an exploratory study because it is aimed at uncovering facts by prompting questions like what, where, who and why, as opined by Babbie (2012). As mentioned earlier, the data for the study was collected using a qualitative approach.

3.2.1 Nature of the study

An explanatory descriptive research design was adopted for the study, in order to understand the effectiveness of the waste management system at the uBuhlebezwe local municipality. According to Kumar, (2011:34), a research design is descriptive in nature seeks to describe a phenomenon or situation, as it focuses on reporting findings of what has happened and what has been said. The descriptive research design is thus the most applicable to this study, as it seeks to describe the perceptions from the concerned citizens and the government officials concerning refuse waste management. A descriptive research design thus enabled the researcher to get more insight into the underlying causes of the ineffective refuse waste management in the municipal area.

3.3 RESEARCH METHODS

3.3.1 Qualitative Research Methodology

According to Bell and Waters (2014), “methods are selected because they will provide the data you require to produce a complete piece of research”. The data collection method is prompted by the research goals, and the advantages and disadvantages of each method” (Kajornboon, 2005). In other words, the circumstances in which the inquiry occurs determines the method to be employed (Edmonds and Kennedy, 2013). Given this background, the study is considered a qualitative study because it aims to understand people’s opinions regarding the ineffective delivery of the public services. Creswell and Clark (2011:12) suggest that qualitative research methods are intended to provide a better understanding of human behaviour. Such studies focus on real life findings as the methods seek to see the world from a different perspective and in-depth knowledge of the situation.

This is why Fraenkel and Wallen (2009) noted that qualitative research studies and explores the situations, relationships and/or materials between events and processes. The qualitative method also allows the researcher to study the identified cases in detail by eliciting the respondents’ accounts of meaning, perception and experience. Denzin and Lincoln, (2010:26) pointed that qualitative research is informed by the underlying aims and objectives, which thus link to an appreciation of some elements of social life, together with its methods which produce words and not numbers, for data analysis.

3.3.2 Quantitative Research Method

Unlike the qualitative research methods which make inferences, the quantitative methods are statistical, because of numbers generation associated with it. According to Harwell, (2011:149), the main features of the quantitative methods include replicability, objectivity and the ability to generalise research findings. Harwell further noted that in quantitative research, the researcher's perceptions, experiences and biases do not apply, in order to achieve objectivity. The method is rather deductive in nature, so as to allow the generalizability of the findings.

3.3.3 Mixed Method Approach

The approach provides for methodological triangulation among other benefits. Mixed method approach employs both the qualitative and quantitative approaches (Johnson and Onwuegbuzie, 2004:17). The advantage of the mixed method approach is that it realises the strengths and weaknesses of each of the methods employed and therefore concludes that none of the approaches is better than the other. The mixed methods approach is thus more advantageous for being a 'hybrid' approach that neutralises the weaknesses of each of the approaches when used individually (Creswell, 2014). The research method applied for the study is qualitative. This choice was predicated on the comparative suitability of the qualitative approach to cater for the objectives of the study. This is because it allowed the researcher to elicit in-depth information on the municipal waste management systems and underlying factors that contribute to the service delivery protests. The findings allowed the researcher to make sound conclusions based on the premises provided by the method.

3.4 RESEARCH INSTRUMENTS

3.4.1 Data Collection Instruments

Sekaran and Bougie (2010) noted that data can either be collected from primary, which is first-hand information from the respondents, or secondary sources, which refers to data collected from sources that already exist. The data instruments used for this study is an interview guide. An interview guide is a compilation of questions used to guide the interview and focus group discussion. Two sets of interview guide questions addressing the objectives of the study were used for the face-to-face interview and the focus group discussion.

3.4.2 Pilot Testing

Pilot testing refers to pre-testing the sample population using the same compiled questions for the actual study. Pilot testing is done to ensure validity and reliability of the research instruments. van Teijlingen and Hundley (2001), noted that “one of the advantages of conducting a pilot study is that it might give advance warning about where the main research project could fail; where research protocols may not be followed; or whether the proposed methods or instruments are inappropriate or too complicated”. The study was pilot tested with a few respondents from the sample population used for the actual study.

3.4.3 In-depth face-to-face Interviews and Focus Group Discussion

Interviews are mostly conducted to probe the respondents’ views on specific issues. In-depth interviews provide a substantial possibility for the respondents to give an in-depth analysis of a phenomenon, based on the respondents’ encounters and perceptions (Seidman, 1991; Babbie, 2010). In-depth interviews provide a platform for the researcher to get more understanding of certain issues which cannot be directly seen through validating, verifying or remarking on the information gathered using other research tools (Creswell, 2013; Lindlof, 1995). A compilation of questions was used to guide the interview process, and the interviews were conducted with five (5) municipal officials who are knowledgeable about the service delivery issues within the municipal area. The respondents consist of the Municipal Managers and Heads of Departments. Similarly, a focus group discussion was conducted involving forty-five (45) participants from various households.

3.4.4 Secondary data

Secondary data from relevant literature such as books, journals, government publications, newsletters, professional body releases/publications etcetera were reviewed. The use of secondary data is to strengthen the findings of the study because “multiple sources of information are sought and used which supports a comprehensive research report”, (Patton, 1990: 244).

3.5 Research Population

According to Sekaran and Bougie (2013:262), population entails “the entire collection of individuals, items, cases, things or events of importance under evaluation when conducting a study”. In the view of Saunders *et al.* (2009), population can be regarded as a the whole case, from which a sample is derived. The target population for the research study comprises

the community members and the municipal officials of the uBuhlebezwe municipality. The municipal area has a total population of 112 000 residents (uBuhlebezwe IDP, 2012-2017). A sample of sixty (60) respondents were randomly selected and participated in the focus group discussions. Similarly, five (5) representatives from the municipal office were purposively selected and interviewed. The numbers of the respondents for the interview and focus group discussion were considered adequate to provide possible answers to the research questions. The sampled area is uBuhlebezwe municipal area. (See the map of the BLM, Fig.1.1).

3.5.1 Sampling strategy

According to Sekaran and Bougie (2013), sampling refers to “the process of choosing suitable individuals, entities or events as representatives of the complete population chosen for the study”. There is probability and non-probability sampling, which entails the selection of a part of the population under study (Battaglia,2008). In probability sampling, every member of the population has chance of being nominated as the sample respondent (Sekaran and Bougie, 2013). The sample is chosen with the notion that it is representative across the whole population to be studied. Probability sampling is important when there is a need for generalisability and representativeness of the research findings (Sekaran and Bougie 2010_b). Probability sampling techniques include systematic sampling, simple random sampling, double sampling, cluster sampling, as well as stratified random sampling (Sekaran and Bougie, 2013:278). Similarly, it has been noted that “non-probability sampling does not attempt to select a random sample from the population of interest, rather, subjective methods are used to decide which elements are included in the sample” (Battaglia, 2008). Non-probability sampling is employed when members of the population do not have an equal chance of being nominated to participate in the study and when time and costs are important (Sekaran and Bougie, 2013). Cooper and Schindler (2006) noted that there are three methods of non-probability sampling namely; purposive, quota and convenience sampling. Non-probability sampling allowed the researcher to choose respondents based on characteristics, expertise and knowledge. For the purposes of the study, the researcher adopted a non-probability purposive sampling technique. This is because, non-probability purposive sampling is used to elicit information from specific target groups who can provide the required information (Sekaran and Bougie, 2013).

The targeted sample for the interview were key informants among the municipality officials. The inclusion criteria were rich experience and occupation of strategic or at least mid-

management position within any of the four units that made up the Municipalities wastes management operation. The intention was to interview two officials per unit. While two of these were targeted for the pilot study which was designed to test the appropriateness of the questions and assess the study logistics.

The focus group was targeted at the residents who are the recipients of the service being studied. The twelve wards in the municipality were clustered into six based on sizes and proximity with the intent of holding six focus groups sessions with ten participants (household representatives) each, thus making a targeted sample size of sixty which were selected based on convenience. The group size of ten was selected based on the advice by Krueger and Casey (2014) who argues that any size above ten has the propensity to impede active participation. Ten of these were targeted for the pilot study. The Table 3.1 and Table 3.2 shows the sampled respondents for the pilot and actual study respectively.

Figure 3.1: Table representing the population for the pilot study

Data collection method	No of respondents	No of targeted interviewees	Total	Total percentage
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Face to face interview	2	6	8	33%
Focus group discussion	6	10	16	60%

Figure 3.2 Table representing the population for the actual study

Data collection method	No of respondents	No of targeted interviewees	Total	Total percentage
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Face to face interview	5	8	50	63%
Focus group discussion	45	60	68	75%

3.6. DATA ANALYSIS

The data for the study were based on primary and secondary sources. Primary data collected through interviews and focus group discussions were analysed through content analysis, which involved coding, memorising, and grouping into similar themes. The responses were transcribed, data organised into patterns, themes and categories which enabled the researcher to group related ideas. Secondary data were used to support the findings of the study.

3.7. TEST OF RESEARCH RELIABILITY AND VALIDITY

According to Bryman and Bell, (2011), reliability is the degree to which a particular study carried out over time produces the same results. In other words, reliability is “a characteristic of measurement concerned with accuracy, precision and consistency” explain Cooper and

Schindler (2006:352). Validity is when an item measures what it planned to measure with adequate precision (Hawking and Hlodinow, 2010). However, it has been argued that these two concepts derived from quantitative research and that they are of no relevance to qualitative research. In their place, the concept of trustworthiness and credibility have been developed to measure the quality of a qualitative research (Golafshani, 2003; Silverman 2001:34).

3.8. CONCLUSION

The chapter presents the methods implemented to collect data from the respondents. The research design, research methods, target population and sampling were discussed. The data collection instruments used were also discussed, and the method of analysis, and the limitations of the study were highlighted. As noted earlier, research methodology provides means of addressing the research questions and realization the research objectives. The next chapter is premised on the presentation and discussion of the findings in relation to the study that was undertaken.

CHAPTER FOUR: PRESENTATION AND ANALYSIS OF THE RESEARCH FINDINGS

4.1. INTRODUCTION

The previous chapter covered research methodology used in the study and established the purpose and relevance of the study. Relevant methodological issues such as sample area, data collection techniques and process were described. This chapter aims to present and discuss the results of the analysis of the data collected in respect of the waste management system in the BLM. In this chapter, the data that were collected through the face-to-face interviews and focus group discussions are collated and presented in different sub-sections in line with the research objective to aid the analysis. The first sub-section highlights the findings of the investigation on the effectiveness of the consultation platform for refuse waste management. The second sub-section addresses the role of public participation in service delivery. The third sub-section examines the impact of the existing refuse waste management control mechanism in BLM. A critical analysis of the data is important in order to get a deeper knowledge on the service delivery issues around refuse waste collection in the BLM. The researcher believes that every stakeholder has a part to play in waste management and has therefore collected data from the government officials and the community members of the municipality sampled in the study.

4.2. RESPONSE RATE

According to Baruch and Holtom, (2008), response rate entails the percentage of the number of people who respond to the research tool, in relation to the total targeted number of people initially sampled. The purpose of response rate is to provide important insights into the consistency and accuracy of the collected data.

4.2.1 Response rate for the pilot study

The number of respondents targeted for the interview session was three (3), while the actual number of respondents interviewed is two (2). Similarly, the number of respondents targeted for the focus group discussion was ten (10) while the number of respondents participated in the focus group discussion was six (6). Thus, the response rate for the pilot study is calculated as follows:

$$\frac{\text{Number of respondents (interviewed)} + \text{Number of respondents (focus group discussion)}}{100\%}$$

Number of respondents (Interview targeted) + Number of respondents (focus group discussion targeted)

$$\frac{(2 + 6) \times 100\%}{(6 + 10)} = 62\%$$

4.2.2. Response rate for the actual study

Similarly, the response rate for the actual study is calculated as follows:

$$\frac{(5 + 45) \times 100\%}{(8 + 60)} = 74\%$$

According to Baruch and Holtom, (2008), response rates are considered fair and representative of the study when the calculated value is up to 52%, while Siddiqui, Wu, Kurbanova, and Qayyum (2014) held that it must be greater than 70%. Given the foregoing, the response rates for the pilot study (62%) and the response rate for the actual study (74%) are considered appropriate and representative of the population studied.

4.3 DATA PRESENTATION AND ANALYSIS

As discussed earlier in Chapter Three, Section 3.6, data analysis entails the breaking down of collected data into a more understandable portions and categories, for the purpose of achieving the objectives of the study. The data for the study were gathered through primary and secondary sources. Primary data collected through interview and focus group discussion, were analysed using content analysis, coded and then grouped into similar themes. The responses were transcribed, the data was organised into patterns, themes and categories and supported with existing literature.

4.3.1 Recalling research objective one: “Analysed the impact of consultation platform on refuse waste management system”.

Using content analysis, the research objective was grouped under theme cluster one-consultation platform. The question that gave insightful information into the research objective from the face-to-face interview is:

Question 11: *How often do you consult the community members on refuse collection using the existing platform?*

Similarly, the question that gave insightful information into research objective one from the focus group discussion is:

Question 3: *How do you communicate your service delivery issues to the municipality?*

4.3.1.1 Presentation of findings

In addressing the impact of effective consultation platform for waste management system, responses to question 11 for the face-to-face interview session shows 60% of the respondents do not consult with the existing platform while (40%) do consult with the platform. The later indicated that consultation takes place on ad hoc (basically twice a year). The data shows that a fairly significant number of the respondents do not consult with the existing service delivery consultation platform and for the respondents who consult with the platform, the number of consultation that exists is very minimal. The researcher probed a further question on why the unwillingness to consult with the platform and the respondents indicated the ineffectiveness of the existing platform and too much bureaucracy makes it difficult to use the platform.

Question 3 was addressed to the focus group. In addressing question 3, 85% of the focus group discussants indicated services delivery issues are communicated mostly through protests. The reason being that there is no other way government can listen except through protests. In line with this, a respondent noted:

Respondent II: “The problem is they don’t ask us about how things should be, but they do things according to their own thoughts. So as a community, that is how we respond to their actions, we stop paying for the waste collection because we are not happy about how the services are provided. We dump the refuse everywhere because we are not given the refuse bags and we are not told why. We as a community are

supposed to be involved in the affairs of our municipality, but then most of us feel that our needs are not considered so we gather our own private meetings and encourage each other not to pay for electricity and dump our household waste wherever is convenient for us. When it comes to their bills, we cannot pay for what we don't understand..."

The researcher probed a further question into why the respondents resorted to the use of protest actions, illegal dumping, non-payment of bills as opposed to the existing communication platform such as Mayoral izimbizo, and budget roadshows. 85% of the respondents indicated unawareness of any existing service delivery communication platform. 15% of the respondents indicated awareness of the communication platform but do not know how it works.

4.3.2 Recalling research objective two: Assessed the role of public participation in the BLM service delivery.

The research objective two was analysed using content analysis and grouped under theme cluster two- public participation. The objective was explored using questions 11 and 12 in the face-to-face interview with the municipal officials.

Question 11 thus read: How often do you consult the community members with regards to refuse collection using the existing public participatory platform?

Similarly, question 12 thus read: What public participation programs do you have in the uBuhlebezwe local municipality for community engagement on refuse collection?

4.3.2.1 Presentation of findings

The question 11 addressed the frequency at which the municipality engages with the community specifically on waste management issues using government platform. The responses to question 11 which was earlier addressed in Section 4.3.1.1 linked too much bureaucracy to the ineffectiveness of the existing consultation platform. Similarly, data emerging from question 12 shows that 70% of the respondents admitted that the municipality has a number of documented approaches and programmes to enhance public participation but are rarely executed. The researcher probed a further question on having knowledge of the advantages of the public participation platform in service delivery. All the respondents

admitted that effective public participation platform would reduce the associated negative impact of service delivery protests.

4.3.3. Recalling research objective three: To what extent does the existing control mechanism contribute to the waste management system in the BLM?

The research objective three was analysed using content analysis and grouped under theme cluster three-control mechanism and challenges. The aim was to examine the current waste management control mechanisms used at BLM. The researcher deemed it necessary to gain deeper knowledge on the effectiveness of the existing control mechanisms and the possible challenges facing waste management system at BLM affecting waste management in the area. The questions from the face-to-face interview which gave insight into research objective three are questions 6, 7, 8 and 9 respectively.

4.3.3.1 Presentation of findings

In addressing interview questions 6 which read: The national Back-to-Basics plan indicates waste collection as one of the government's priorities, how is uBuhlebezwe local municipality fulfilling this mandate? To what extent does the existing control mechanism contribute to the waste management system in the BLM? The respondents (80%) indicated that the municipality is not fulfilling its mandate in line with Back-to-Basics concept. As noted by some of the respondents:

Respondent I: "In terms of Back-to-Basics targets and waste management, we are doing well, although we are currently looking strategically at the point of cutting the backlog. We have plans in place in terms of increasing (refuse services) -----because currently we are collecting in formalised areas, but then we (also) have ways of getting into informal settlements where we have refuse bins. ---- we are seeing the gap in terms of increasing the areas that we cover; the households... trying to get to semi-urban areas".

Respondent III: "We are not fulfilling the Back-to-Basic mandate in the uBuhlebezwe municipality since we are only collecting refuse from one thousand, three hundred and forty-seven (1,347) households in a municipality with over twenty-two thousand households. This means we are servicing about 6% of the municipality; -----that means that we are not fulfilling this mandate".

20% of the respondents indicated that the BLM is achieving its Back-to-Basics goals. The respondent noted:

“-----we even publish in local newspapers when refuse is collected. Those newspapers are distributed free of charge to the community. I know that in particular suburbs it is on Tuesday. For instance, where I stay, they collect refuse every Thursday and these schedules are on our website”.

In addressing interview questions 7, which reads as follows: Are there targets made with regards to refuse collection? 80% of the respondents acknowledged that the municipality has targets of ensuring refuse collection. As noted by a respondent:

Respondent IV: “Yes definitely, we don’t miss even a single day in terms of waste collection in our routes; we rotate them on a daily basis”. “Definitely we meet them here at Ixopo, only Ixopo CBD. We don’t have complaints”.

Respondent II: With refuse collection, we don’t have specific targets that we need to take so (many) tons per annum. That is only directed by the amount of refuse that is collected in household and also in residential areas. We don’t know exactly, since we don’t have our own landfill site where (we are) able to weigh the stuff, how much (we) are collecting per day and so on. That also does not make us so (very) competent in terms of these targets or in terms of (the) refuse collection.

Interview question eight (8) reads: What challenges are you facing as a Municipality with regards to refuse collection? A majority of the respondents (90%) noted that the BLM is facing challenges such as inadequate transport system, inadequate waste evacuation vehicles, absence of nearby vehicle repairers, no own landfill site, incapacity of the human resources, inadequate budget. As noted by one of the respondents:

Respondent III: Yes, there are challenges, they are more like in terms of our trucks; at times we get challenges because trucks are specialised vehicles. Sometimes when there is a breakdown, you need to send them for replacement and you cannot get service providers nearby-----, we are looking at different ways to improve the part of disposal and to ensure that we introduce recycling as part of the whole process.

Respondent I: We don't have landfill site, we should be recycling the waste but due to the absence of the land fill site we don't recycle, we use uMzimkhulu. We are using too much diesel, if we have the site we would go there once but now we go three or four times a day, which consumes a lot of diesel... we dump twice in the morning and twice in the afternoon...

Respondent II: In places like Shayamoya we don't have a clear plan on how to remove the waste because it is clear that (those) areas are full of waste, but we do have skippers where people are putting their waste. But sometimes they end up randomly dumping the waste. Those are things I have observed as the main challenges. In Fairview, it is collected but there are petty changes where unidentified people use their bakkies to dump in an open space.

Respondent V: The breakdowns in our trucks poses a challenge because the limited staff who collect wastes especially those who work between 14h00 and 22h00. Sometimes if one is sick we don't know up until it 14:30, there is no one to replace him or her in that particular area... and that area will be left off until the following day unless we try to use the staff that is there to assist in that regard. When the trucks are at work the wheels sometimes break, there will be no more waste collection that is taking place in that particular area.

Interview question 9 thus read: Do you have any monitoring and evaluation plans in place for your services? 60% of the respondents indicated that the municipality has a monitoring and evaluation plan. As noted by one of the respondents:

Respondent IV: Refuse collection is very easy to monitor; other than the departmental scorecard, manager's performance agreement and all that, the challenges of waste collection are visible so you can't lie about it. We have interactions (with) different businesses and other people which keeps us on our toes, but formally we have our performance management system within the municipality; at an organisational and individual levels. We use more of physical inspection. The Mayor drives around to see if there is anything to note around and then that is attended to. So as much as we do monthly (and) quarterly reporting and everything has (to) come to (the) scorecard, it is one service that is very easy to monitor. You can never lie, there is always (a) portfolio of evidence

(of what) is done or not. 40% of the respondents maintained that there is no formal mechanism monitoring refuse management. The researcher probed a further question which thus reads: Is it that the municipality does not have any control measures for waste management or that the existing mechanism is not effective:

Respondent III: We don't have in black and white monitoring and evaluation plans approved or adopted by the council, but one can say we do monitor the plan that we have. For example, a vehicle has to go behind the truck to check how the collection of waste was done on that particular day and that (there was) (not) any other waste that (was) left behind and so on.

The researcher gathered from the responses that though there is evidence of control measures in the BLM waste management system, the measures are not effectively implemented.

4.4. RESEARCH RESULT AND DISCUSSION OF FINDINGS

This section approached the research objectives in the context of the three thematic areas identified by the qualitative findings. The research objectives were to examine the impact of consultation platform on refuse waste management system; the role of public participation on service delivery; and the impact of the existing control mechanism on waste management system at BLM. Thus, assessing the impact of consultation platform can be situated within the discussion of issues related to public/citizen/community participation or relation with the government. Similarly, the control mechanism addresses various practices involved in the day-to-day running of the municipality which include planning, monitoring of performance, measurement and evaluation, accountability, transparency etcetera.

4.4.1. Research objectives one and two

The research objectives addressed the impact of consultation platform and the role of public participation on refuse waste management respectively. The findings emanating from the municipal officials indicated that respondents rarely consult with the existing communication platform because of the bureaucratic nature of the organizational structure; ineffectiveness of the existing platform; and the availability of approaches and programmes to enhance public participation that are rarely executed. Similarly, the respondents (household residents) are not

aware of the available government existing communication platform for discussions on matters affecting the residents such as waste management issues.

Bureaucracy is a concept championed by Max Weber built on principles of standardization of procedures and a clear chain of command in an organizational setting such as size and complexity. According to Mullins and Christy, (2016), bureaucracy is the application of rational organizational principles and a rational and legal understanding of authority for effective management of the organization. The advocacy of bureaucracy emphasizes efficiency in line with a hierarchy of authority, consistent procedures, scrupulous record-keeping and hiring employees on the basis of the specific qualifications for the job (Mullins and Christy, 2016). The critics of bureaucratic management theory have linked inefficiency to the bureaucracy because of long chain of command and communication, reliance on positional authority, rigidity of decision-making, rules and red tape, justifying poor service by citing rules, procedures and job descriptions etcetera.

In support of the problems of bureaucracy, a few recent studies have linked inefficiency to too much bureaucracy within the system. Jimenez, (2017), conducted a study on the effects of three defining features of bureaucratic organizations – hierarchy, centralization of decision-making, and the formalization of administrative procedures and rules – on the fiscal health of city governments in the United States. The findings of the study showed that excessive bureaucracy leads to poorer fiscal health while centralization and formalization exert a statistically significant and negative effect on city budgetary solvency. Similarly, another study examining the effects of bureaucratic elements on resource management implementation at municipal levels found that municipal governing structures, uncoordinated implementation processes and insufficient implementation rules affect the productivity of the municipality (Crewe, 2015:3167). Furthermore, Cappelletti and Soguel, (2013) conducted a study on the relationship between bureaucratic complexity and the size of the flypaper effect at municipal level of government. The study found that the higher the bureaucratic complexity of a municipality, the higher the cost and the autonomy of the local bureaucrats. In a similar study on municipal bureaucrats and environmental policy implementation in Cape Town, it was found that bureaucracy creates a barrier in the implementation of progressive environmental policy initiatives (McDonald, 2002).

These findings are in line with the finding of the study. Academic writers have termed bureaucracy as the symbol of inefficiency due to its major shortcomings. Despite negative perceptions on bureaucracy, the researcher believed that there is still element of good in bureaucracy especially for government establishment. However, enhancing solid waste service delivery at BLM would require fairly less bureaucracy in the system. Emanating from the research is the fact that respondents are not aware of public participation platforms that are available at municipal levels for effective government-to-citizen (G2C) and citizen-to-government (C2G) deliberations on public matters. The findings of the study support some other studies conducted in the area of citizen/community/public participation. In line with the findings of this study, Vivier et al (2015), conducted a study exploring the communication platforms for the government citizen interface in South Africa. The findings of the study show that citizens' lack civic knowledge, including knowledge on how to engage government. A research study conducted on the root causes of illegal dumping in the township of Clermont, KwaZulu-Natal, found that the residents are ignorant of environmental education and are not informed of Solid Waste Management Policies (Ngeleka, 2010: 106). Another study conducted by Zhang et al. (2011), on management strategies of municipal solid waste found that the lack of public awareness and participation is one of the most important factors compromising implementation of integrated municipal solid waste management. Given these findings, there is evidence from the literature that public awareness of government policies, strategies and initiatives remains one of the challenges facing development at municipal levels.

According to Buccus et al., (2007:7) the African context views public participation as involving capacity building, but this also depends on the approach employed, which indicates one of three objectives: improving decision-making in difficult situations, power distribution in social groups, as well as skills development in targeted groups. The democratic ethos of South Africa's constitution entrenches public participation aimed at encouraging citizens to make their concerns known through formal institutional structures within representative local democracies (Mubangizi and Dassah, 2014:277). In line with these scholarly views, public participation at BLM is not perceived to be achieving any of the objectives listed by Buccus et al., (2007) because of lack of knowledge. The lack of information dissemination and knowledge makes it quite understandable why citizens resort to protests actions (See 4.3.1.1) as the only way to communicate poor service delivery issues. It is clear from the responses gathered why public service delivery protests have been perceived to be on the increase and

labelling South Africa the 'protest capital of the world' (Okeke-uzodike et al., 2014: 90; Alexander, 2012:2).

4.4.2. Research objective three

Assessed the extent to which the existing control mechanism contribute positively to the waste management system at the BLM and the various challenges facing the municipality. It was gathered from the responses that the municipality has control mechanisms well spelt out in various municipal laws and Acts. This finding concurs with the literature. According to UBuhlebezwe Municipality IDP (2012:34), it is the responsibility of the management to establish and maintain an effective governance system in order to ensure that communication goals and values are established, accomplished and the relevant authorities are accountable, while at the same time preserving the values of the organisation.

In addition, other control measures existing in the BLM are performance management, internal audit, evaluation. However, the researcher gathered from the responses that though there is evidence of control measures in the BLM waste management system, the measures are rarely implemented thus questioning the effectiveness of the system. The researcher also gathered from the responses that the municipality faces challenges such as inadequate transport system, inadequate waste evacuation vehicles, absence of nearby vehicle repairers, no own landfill site, incapacity of the human resources, and inadequate budget.

Literature has documented ineffective implementation strategies as challenges facing accomplishment of various government initiatives. Workul and Muchie, (2012), conducted a study conducted on the factors affecting efficiency in the management of solid waste produced by commercial businesses in the City of Tshwane. The South African National Department of Environmental Affairs and Tourism (SANDEAT), National policy on waste management permits the disposal and combustion of municipal solid waste to be conducted by the use of landfills; and the conversion of non- recyclable waste materials into useable heat, electricity, or fuel, combustion, and transfer stations. In line with the National policy on waste management, the study found that although the use of such mechanisms is consistent with the municipal bylaw in the city of Tshwane, the mechanisms have been poorly utilized mostly due to lack of infrastructural development and technical skills (Workul and Muchie, 2012:8). In line with the findings on challenges facing the municipality, a similar study in KwaZulu-Natal, found absence of land fill site and extension of refuse collection to all wards

of the municipality remains a challenge due to the rural nature of the municipality (Ezinqoleni Municipality 2015-16). This concurs the findings in the study which noted that the BLM serves on 6% of the residents. In support of this, only 20% of waste generated within UBuhlebezwe is collected and disposed of at a formal waste disposal facility (UBuhlebezwe Municipality IDP, 2012:51).

According to Ngubane (2005), a framework of service delivery that equates to good governance has six components namely; consultation, discussion, monitoring, performance management, and evaluation (see Chapter 2, Section 2.2, Figure 2.1). In support of Ngubane, Owen (2003) emphasises on four pillars of a well-designed service delivery framework which include, communication, flexibility, logic and structure. Such framework ensures citizens/community/public participation. The UN, situates the concept of citizen engagement within an overall governance framework and defines citizen engagement as “the desired outcome or logical end of participatory governance” a strategy of development governance which “pertains to planning, budgeting, monitoring and accountability of socio-economic development policies and programmes” (UN, 2007). Engagement of the citizens will eliminate the perceived lack of service-orientation at municipal level, including ineffective and inefficient administration structures, which Khumalo et al., (2003:4), found as obstacles to service delivery in many poor communities. In addition, citizens’ participation in decision making would result in empower and decrease in the frequent service delivery protest action and empower.

4.5. RELIABILITY AND VALIDITY OF THE STUDY

The trustworthiness and credibility of the research was ensured by adhering the all the required ethical procedures in conducting a research study (please see chapter five, section 5.4). The reliability of the questions that guided the interview and focus group discussion was tested during the pilot study (please see section 4.2.1). There were no issues recorded with the questions as respondents noted that the questions were comprehensive. According to Maree, (2007:217), construct validity can be achieved by conducting a pilot study. For the purpose of this study, the researcher ensured that a construct validity is achieved by first conducting a pilot study. The content validity can achieved by the correctness of the questions, and the inclusion of the right questions in the questionnaire (Brynard and Hanekom, 2006:48). To ensure the study achieved content validity, the supervisor reviewed

the questions prior to the survey being done and made the necessary corrections for the interview and focus group discussion.

4.6. CONCLUSION

The main objective of chapter four was to report on the findings and to discuss the results of the study conducted on the effectiveness of waste management system at uBuhlebezwe local municipality. The study revealed underlying facts that have largely contributed to the perceived ineffective service delivery in the areas of waste management and causes of increasing service delivery protests actions in BLM. The result identified that lack of knowledge of consultation platform as one of the reasons for ineffective public participation by the residents of BLM. Moreover, ineffectiveness of citizen engagement on the part of the municipality was attributed to the bureaucratic nature of the municipality. The result of the study also noted the weak nature of the control mechanism that results in various challenges facing BLM. The challenges include, inadequate transport system, inadequate waste evacuation vehicles, absence of nearby vehicle repairers, absence landfill site, incapacity of the human resources, and inadequate budget. The next chapter which is chapter five presents a summary of this research and draw conclusion.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1. INTRODUCTION

The purpose of this study was to investigate the effectiveness of public service delivery with particular reference to solid waste management in uBuhlebezwe local municipality. The final chapter of the dissertation presents a summary of this research study, draws conclusion and suggests recommendation based on the discussion of the results presented in the chapter four. The recommendations to a large extent, were for managerial applications and future research. An overall conclusion was presented at the end of the study

5.2. SUMMARY OF CHAPTERS

5.2.1 Summary of chapter one

The chapter one of the research study covers the introduction and overview of the study. The chapter provided a background information on the focus area of the study and identified the research problem that need to be addressed. The problem addressed by this research is that solid waste management at uBuhlebezwe municipality is ineffective leading to increasing service delivery protest actions by the citizens. The research objectives were derived in line with the identified research problems. The research objectives addressed by the study are:

- i. Analysed the impact of the consultation platform on the refuse waste management system.
- ii. Assessed the role of public participation in the BLM service delivery issues.
- iii. Examined the impact of the existing control mechanism on the BLM refuse waste management system.

5.2.2 Summary of chapter two

The chapter provided information on the existing related literature on solid waste management. It began with the introduction of the chapter, then reviewed theoretical and conceptual frameworks underpinning the study. It went further and reviewed the South African legal frameworks guiding waste management at national, provincial and municipal levels. Furthermore, the concept of waste it's categories were highlighted on. The chapter also provided insightful information on waste management in South African, narrowed it to the waste management system at BLM and various challenges facing waste management.

5.2.3. Summary of chapter three

This part of the study describes the research methodology adopted for the study. The adopted research methodology was assumed appropriate to elicit information in addressing the research objectives. The chapter importance and reasons for considering the study as a qualitative study using face-to-face interview and focus group discussion to elicit information needed to address the identified research problem. The chapter described the research population, research focus areas and sampling method used in conducting the research. The concept of reliability and validity were discussed in this chapter.

5.2.4 Summary of chapter four

The chapter analysed the data collected and presented information on the findings of the study. It started with information on the pilot study conducted, and then determined the response rate. The findings were presented in line with the research objectives. A general discussion of the findings then followed. The measures taken to ensure the reliability and validity; or trustworthiness and credibility of the measuring instruments used and that of the study was presented. The conclusion on the chapter was also drawn.

5.2.5 Summary of chapter five

The chapter provided information on the general findings of the study and provided a recommendation for managerial and future academic purposes.

5.3. SUMMARY OF FINDINGS AND RECOMMENDATIONS

Solid waste management has remained a development challenge in developing countries. The attributing factors are linked to the increasing population, migration of people from rural areas to urban cities, lack of knowledge of different stages of waste management and the necessary linkages for the efficient management of the entire system. In addition, the cost of managing the solid waste is high thus putting burden on the municipal budget. The extent to which these challenges are managed would reflect positively or negatively on the municipal waste management. This is why Simelane and Mohee (2012:1) asserted that the attractiveness of many cities in Africa is marred by the inefficient collection, management, disposal and reuse of municipal solid waste. Based on the findings of the study, the following recommendations are made:

5.3.1. Findings and recommendations based on research objective one

The research objective one analyzed the impact of consultation platform on refuse waste management system. Data analysed shows that a fairly significant number of the respondents that do not consult with the existing most service delivery consultation platform and for the respondents who consult with the platform, the number of consultation that exists is very minimal. Another finding showed that respondents are not aware of any existing platform for engaging government on important issues pertaining to the citizens' well-being. This is why the respondents resorted to the use of protest actions to pass information on the areas of important matters and concerns to the government. Given the forgoing, the researcher therefore recommends educational awareness programmes on various existing government engagement platforms so as to reduce the alarming rate of public service delivery protests. Such awareness can be introduced through schools; and can as well be done in partnership with other relevant stakeholders like NGOs, the civil society and the community members. The awareness should cover the services the municipality offers and how to access information relating to such services. Moreover, community members should be educated on the dangers associated with illegal dumping and should be encouraged to report illegal dumping and the perpetrators to the appropriate authorities. All the stakeholders concerned should be involved in the management of waste to generate a sense of responsibility. The educational awareness should highlight on the importance of every stakeholder's role in ensuring a cleaner environment. There is also a need to revisit the existing solid waste collection processes at the municipal level. It was noted from the literature that the municipality collects refuse once a week which does not reduce illegal dumping. The researcher therefore recommends that the number of times waste is collected on weekly basis be increased. Furthermore, the educational awareness campaigns will promote individual behavioural change about illegal dumping and its' consequences.

5.3.2. Findings and recommendations based on research objective two

Research objective two assessed the role of public participation in the BLM service delivery. The data gathered indicated that though the municipality has programmes and initiatives for promoting public participation, the programmes are rarely executed due to the bureaucratic nature of the municipality. The respondents also acknowledged the importance of public participation in service delivery. Because the programmes and initiatives that address public participations are rarely implemented, it's quite understandable why the residents are not

aware of any platform to engage government. As a result, there was no change in people's attitudes and behaviour towards illegal refuse disposal practices such as dumping in open spaces. Nzimakwe and Reddy, (2008), noted that the willingness of a community to participate in the municipality's waste management programs and how the municipality officials went about involving the community as partners in waste management is critical to the success of refuse management. Furthermore, the scholars suggested that for refuse removal initiatives to be effective, municipalities needed to engage in public-private-partnerships (PPP) that promoted refuse management practices (Nzimakwe and Reddy, 2008). Involving the private sector can be a good solution to unlock investment capital and increase cost effectiveness of municipal waste management activities, even though it might not be the silver bullet. Municipalities need to, among others, forge contracts with the private sector appropriately and maintain conducive conditions by enforcing waste management regulations. PPPs are a potentially successful concept for the implementation of existing and new waste management services (Nzimakwe and Reddy, 2008). These could occur in some of these ways; the straightforward outsourcing of services, to more complex engagements between municipalities and private-sector service providers sharing in upward and downward financial potential.

Similarly, Van der Merwe and Steyle (2004) noted that supply chain units or departments should play a leading role in bringing on board stakeholders in refuse removal programs. From the point of view of these scholars, the researcher recommends the adoption, implementation and monitoring approaches that genuinely involve all stakeholders in refuse removal. The approach should involve the top management and the PPP should be extended to door-to-door collection of refuse. The assumption is that the bureaucratic nature of the municipality will be lessened because the top management would be actively involved in planning, organizing, leading and controlling the waste management within the municipality. The privatisation of waste collection seems a better option for many municipalities, since waste management has become more of an open domain for different PPP co-operations and no longer a local government monopoly (Post, 2001:30). The advantage of the private sector is that it is politically independent, economically rational, efficient, dynamic and innovative, and thus has proven to effectively deliver good quality services to municipal departments (Burgess, *et al.*, 1997; Ranamurti, 1999).

5.3.3. Findings and recommendations based on research objective three

The aim of research objective three was to examine the control mechanisms and determine the challenges facing BLM. The researcher gathered from the responses that though there is evidence of control measures in the BLM waste management system, the measures are not effectively implemented. It was also noted that the BLM is facing challenges such as inadequate transport system, inadequate waste evacuation vehicles, absence of nearby vehicle repairers, no own landfill site, incapacity of the human resources, and inadequate budget. As mentioned earlier in chapter two, section 2.6, the uBuhlebezwe municipality recently implemented an Integrated Waste Management Plan (IWMP) to improve on the quality of life for all its citizens by providing basic affordable services, a safe and healthy environment and the eradication of poverty, whilst maintaining the scenic beauty of the area. Integrated waste management system has been acknowledged as an effective means of managing waste evidenced from the developed nations. It is deduced from the findings of the study that BLM is facing challenges which is deterring the advantages of IWMP to the municipality. The challenges as mentioned earlier from the literature (Chapter 2, Section 2.6) include; no documented evidence of waste separation/recycling, municipality does not have a dumping site, there is insufficient number of compactor trucks and street refuse bins, and the refuse bins are not placed at strategic positions, frequent vehicle breakdowns which makes the skipper truck to take one skip bin per trip to the uMzimkhulu landfill site (BLM IDP Review, 2016/2017:208). The findings in the study concur with the findings in the literature which makes it challenging for the BLM to practice ISWM. Given these challenges, the provision of basic services remains the focus point in developing integrated waste management. The researcher therefore recommends the need for the municipality to be committed to an effective and efficient delivery of waste collection services. The municipality should develop the appropriate strategy in enhancing the capacity of the human resources through education, training and development. The department should also implement a learning and development strategy that allows employees to experience ISWM in another municipality that the system is working efficiently. That way the employees can apply the knowledge/skills learnt in BLM.

5.3.4. Recommendation for managerial purposes

It is recommended that the BLM should fast track implementation of the ISWM framework which is mostly used in the developed nations to address the issues of waste management. The idea is that the components of ISWM (See Chapter 2, Section 2.2, Figure 2.2) which

drives among others, the educational communication would go a long way in ensuring a waste management system that addresses the needs of the community. With the ISWM framework, various activities such as the legal, institutional and economic activities are linked and interrelated. The activities are considered in prevention, recycling and composting of waste for a functional system; and notably, the choices made around the set-up, storage, collection and transportation are interdependent on frequency and collection timing.

5.4. RECOMMENDATION FOR FUTURE ACADEMIC RESEARCH

The researcher recommends, first, a future research should be directed to the challenges facing BLM identified in this study. Secondly, a similar research should be conducted in another municipality in KwaZulu-Natal to ascertain the challenges facing the identified municipality.

5.5. ETHICAL CONSIDERATIONS

The research involved human beings as participants in a data collection process, so approval to proceed with the research was obtained from University of KwaZulu-Natal Research Office before data was collected. The requirement from the UKZN research office was that the respondents should be protected from any potential negative implication that might arise because of their participation in the research. In order to comply with the requirements of UKZN research office, the researcher ensured that all ethical procedures were adhered to during the course of the study. The researcher applied for an ethical clearance from UKZN research office and ethical certificate was granted before conducting the study. The researcher clearly explained the aim of the study to the respondents orally and issued the respondents consent letters. Permission to carry out the research in BLM was granted by the relevant authorities before the study commenced. The objectives of the study were clearly explained to the respondents and participation was on a voluntarily basis. The respondents were also informed not to address any question they do not feel comfortable with. The respondents were assured of anonymity and confidentiality and were also free to withdraw from the research at any stage without any negative consequences. The respondents were assured that the research is only for academic purpose (see Appendices 1-4 for a copy of ethical clearance certificate, a gate keepers letter and questions that guided the interview and focus group discussion process).

5.6. LIMITATIONS OF THE STUDY

The study was conducted at in uBuhlebezwe municipal area located within the jurisdiction of Harry Gwala. A limited number of government officials and resident households within the municipality were involved in the study. The study is limited to municipal solid waste generated by households such as household refuse. Other categories of waste such as industry waste, medical waste, agricultural waste etcetera did not fall within the scope of the study. The study focused on municipal solid waste management system implemented at UBL. The findings of the study provided insight in to the waste management practices in UBL. However, the findings of the study are not sufficiently enough to use for generalization purposes on service delivery in the area of waste management for other municipalities. This is because the study is limited to UBL municipality and the results of the study can only be used as a benchmark for other related studies.

5.7. CONCLUSION

The provision of an effective solid waste management services continues to be a major problem for developing countries because of the financial implications involved in managing solid waste. Scheinberg *et al.*, (2010), asserted that solid waste management often represents a significant portion of the total recurrent municipal budget in low and middle, income countries. In South Africa, the backlogs of service delivery issues have been linked to the historical discrimination that marred development in mostly disadvantaged communities. The democratic government of South Africa introduced various reforms and strategies to ensure public services are extended to every citizen/community in the country. Such reforms within the scope of this study were to enhance the solid waste management at municipal levels.

The study examined the effectiveness of public service delivery in the area of waste management in uBuhlebezwe local municipality. Understanding how the waste is managed could assist all the stakeholders (government and citizens) in addressing the increasing protest actions relating to public service delivery. The research has shown that there is a need for holistic action to be taken in public education to create awareness in the areas of government consultation platforms and the need for engagement of all stakeholders. Communication transfer between the different stakeholders is of high importance in order to get a well-functioning waste management system in the cities in developing countries (Guerrero et al. 2013:227).

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Waste Management Act (No. 59 of 2008).

APPENDIX 1: ETHICAL CLEARANCE CERTIFICATE



15 June 2016

Mr Ndabezitha Selby Tenza (215030072)
School of Management, IT & Governance
Westville Campus

Dear Mr Tenza,

Protocol reference number: H55/0584/016M

Project title: The causes of poor service delivery by Local Government: The case of U.S. Nkheze (DUM) Local Municipality

Full Approval – Expedited Approval

With regards to your application received on 18 May 2016, the documents submitted have been accepted by the Humanities & Social Sciences Research Ethics Committee and **FULL APPROVAL** for the protocol has been granted.

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number.

Please note: Research data should be securely stored in the discipline/department for a period of 5 years.

The ethical clearance certificate is only valid for a period of 3 years from the date of issue. Thereafter Recertification must be applied for on an annual basis.

I take this opportunity of wishing you everything of the best with your study.

Yours faithfully

Qu

Dr. Shenuka Singh (Chair)

IMS

Cc Supervisor: Dr Okeke-Uzodike
Cc Academic Leader Research: Professor Brian McArthur
Cc School Administrator: Ms Angele Pearce

Humanities & Social Sciences Research Ethics Committee

Dr. Gianvittorio Bignelli (Chair)

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 Forest Green
 Redwood
 Howard College
 Medical School
 Maternal/Infant
 Nursing

APPENDIX 2: QUESTIONS USED FOR THE FACE-TO-FACE INTERVIEW

1. How often do service delivery protests take place in your municipality?
2. How often do Municipal employees go on strike?
3. What impact does an employee strike have on service delivery (refuse collection)?
4. What alternative methods can the municipality bring on board to enhance refuse collection?
5. Are ratepayers satisfied with the level of service (refuse collection) you do for them?
6. The national Back to Basics plan indicates waste collection as one of government's priorities, how is uBuhlebezwe local municipality fulfilling this mandate? To what extent do the existing control mechanisms contribute to the waste management system in the BLM?
7. Are there targets made with regards to refuse collection?
8. What challenges are you facing as a Municipality with regards to refuse collection?
9. Do you have any monitoring and evaluation plans in place for your services?
10. What is your current budget on refuse collection? And what informs the amount your budget?
11. Do you have ample funds to maintain the unit of refuse collection?
12. How often do you consult the community members with regards to refuse collection using the existing platform?
13. What public participation programs do you have at the Ubuhlebezwe local municipality for community engagements on refuse collection?
14. Do you have any monitoring and evaluation plans in place for your services?

APPENDIX 3: QUESTIONS USED FOR THE FOCUS GROUP DISCUSSION

The purpose of this research is to investigate the effectiveness of the public service delivery in the area of refuse waste management at uBuhlebezwe local municipality. As local residents of the mun the focus group discussion. Your contribution to this study is highly appreciated. For any queries, please contact the researcher, Ndabezitha Tenza, as per below:

Office Telephone number: 0398348700

Cell phone number: 0715611278

Fax: 03983481641

Email: tenzan@harrygwaladm.gov.za

Name of Interviewee (optional)_____

Ward _____

Village _____

SECTION A: This section addresses the issue of municipal services

1. What municipal services do you have access to e.g. water, electricity, sanitation, refuse collection?
2. Are you satisfied with service delivery in your area? Please explain.
3. How do you communicate your service delivery issues to the municipality?
4. Do you think service delivery in your area is effective? Please explain.

SECTION B: Cost implications: Payment for Municipal Services

5. Do you pay for municipal services? If yes, which ones?
6. Can you afford to pay for municipal services?
7. How much do you spend on your municipal services on average each month?
8. How often do you pay for municipal services?
9. Do you settle your bills on time? If no, why?
10. Do you think you should pay for municipal services? Please explain your answer.

SECTION C: Waste management: Refuse Collection

11. Tell me about garbage collection in your area, that is, how often do you dispose of garbage, where is it collected from and how often, and are you satisfied with how it is done?
12. Do you receive any garbage collection bags, and if so are there enough?
13. What alternatives do you have to dispose of your refuse when it is not collected?
14. How often do service delivery protests take place in your area?
15. How do municipal employees' protests affect the collection of garbage in your area?
16. What are the challenges that you face regarding garbage collection?
17. What do you think the municipality should do to improve garbage collection in your area?

APPENDIX 4: GATEKEEPER'S LETTER

UBUHLEBEZWE

Telephone: 039 – 834 7700
Fax: 039 – 834 1168
E-mail: mm@ubuhlebezwe.org.za
Website: www.ubuhlebezwe.org.za



PO BOX 132
29 Margaret Street, Ixopo
Kwa-Zulu Natal, 3276
South Africa

MUNICIPALITY

From the Office of the Municipal Manager.

Private Bag X 501
Ixopo
3276

29 April 2016

PERMISSION TO CONDUCT RESEARCH AT UBUHLEBEZWE MUNICIPALITY:


Dear Mr. N Tenza,

We acknowledge receipt of your correspondence dated 08 February 2016, requesting permission to conduct research towards the fulfillment of your Masters Degree with the University of Kwazulu Natal.

Ubuhebezwe Municipality hereby grants you permission to conduct the requested research within the area of Ubuhebezwe, and with the identified relevant personnel at Ubuhebezwe Municipality.

Hoping you will find the above in order.

Yours Sincerely


Mr. GM Sineke
Municipal Manager
Ubuhebezwe Municipality

All correspondence to be addressed to the Municipal Manager

APPENDIX 5: LANGUAGE EDITOR

Cecil Renaud Library
University of KwaZulu-Natal
Pvt Bag X014
Scottsville
3209

Email: kuhn@ukzn.ac.za
Ph: 033 260 5904

20 June 2017

PROOFREADING OF THESIS: NDABEZITHA TENZA

To whom it may concern

This is to certify that I have proofread the above thesis and used a print copy to indicate changes, comments and queries. The proofreading involved 3 aspects:

- checking grammar, spelling, typos, sentence construction, vocabulary
- checking numbering of sections and chapters; formatting; contents pages
- checking references – ensuring that references in the text were in the bibliography and visa versa; ensuring consistency in presentation of bibliographic details; completing reference details as far as possible and ensuring alphabetical order in the bibliography. Several queries were sent to the author for him to verify details.

Adherence to my corrections and any corrections made by the author subsequent to my proofreading, have not been checked by myself.

Yours faithfully



Dr Rosemary Jean Kuhn
Senior subject librarian

APPENDIX 6: TURNITIN REPORT

Turnitin Originality Report

Draft by N Tenza

From Prop / Draft Chapters (MPA CW)

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APPENDIX 7: PERMISSION TO SUBMIT



College of Law and Management Studies

Supervisors Permission to Submit Thesis/ Dissertation for Examination

Name: Ndabezitha Tenza		No: 215080072	
Title: The Effectiveness of Public Delivery: Evidence from Ubuhlebezwe Local Municipality Waste Management System			
Qualification: MPA		School: Management,IT and Governance	
	Yes	No	
To the best of my knowledge, the thesis/dissertation is primarily the student's own work and the student has acknowledged all reference sources			
The English language is of a suitable standard for examination without going for professional editing.			
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Comment if % is over 10%:			
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