

**Local government funding and infrastructure backlogs: A case study of Emfuleni
Local Municipality**

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ABSTRACT

South Africa is a hotbed of service delivery protests compared to developing countries. It is still faced with massive backlogs of service delivery, and these affect the lives of many people at the grassroots level. Although infrastructure backlogs are attributed to the laws passed during the apartheid era, other factors such as corruption and unskilled workers have been regarded as contributing components towards backlogs within the municipalities.

This research explores the funding options towards municipalities within South Africa and identifies the reasons for inaccessible basic services by other communities. Emfuleni Local Municipality is used as a case study to represent some struggling municipalities around the country. Emfuleni Local Municipality is an emerging urbanised municipality located in Gauteng Province, south of Johannesburg City Centre. Research questions of the study were answered based on the service delivery challenges experienced in Emfuleni Local Municipality as a case study.

Municipalities get funds from the national government, private sector, and revenues collected by themselves from locals to keep municipal operations active. Most of the funds received from national government and through collection of revenues from locals are used to finance long-term plans of the municipality. In addition, funds received from the private sector are also used to finance projects deemed long-term plans, unless such projects have prescribed conditions. This explains why infrastructure backlogs continue to persist even though funds have been sourced from different sectors, as some funds were meant for projects that were not on the municipality plans. Overall, this study established that there is a correlation between funding and infrastructure backlogs.

The study used Service Delivery Framework (SDF) and Municipal Financial Framework (MFF) as its theoretical constructs. Only two types of the SDF were used, that is decentralization and multi-level as these were relevant to South African context. These helped in the identification of factors that hinder the elimination of infrastructure backlogs within municipalities. MFF was used in understanding funding processes towards municipalities within the country. Recommendations and suggestions are made based on the factors stated by the research participants in this study.

The study was a mixture of qualitative and quantitative methods. Themes were generated for qualitative analysis using thematic coding. Figures and tables were generated for quantitative analysis using Statistical Package for Social Sciences (SPSS) software version

23. Major findings from the study are expected to inform decision makers within the national government, provincial government and local authorities to make better decisions to eradicate infrastructure backlogs within municipalities.

Keywords: local governance, funding, infrastructure, backlog, municipality, Emfuleni Local Municipality, Municipal Financial Framework, Service Delivery Framework.

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ABBREVIATIONS

COGTA	Cooperative Governance and Traditional Affairs
ELM	Emfuleni Local Municipality
FFC	Financial and Fiscal Commission
LGAM	Local Government and Municipal
MFF	Municipal Financial Framework
MIG	Municipal Infrastructure Grants
NG	National Government
SDF	Service Delivery Framework
UNDP	United Nations Development Programme

Chapter 1 – Introduction

1.1 Background and reasons for the study

A vast number of South African municipalities are characterized by massive infrastructure backlogs, a clear sign that some of its citizens struggle to get basic access to services such as water, sanitation, electricity and roads. Access to effective public services is still viewed by people within these struggling municipalities as a privilege enjoyed by only the privileged few in advanced municipalities. There is a need for transformation in the municipalities to ensure effective delivery and access to basic services by all citizens.

Studies such as Pretorius and Schurink (2007) state that infrastructure backlogs were caused by the apartheid system, which created demarcation borders to separate residents and citizens based on race. Access to effective public services was seen by the government of that time as a privilege and not a legitimate right applicable to all citizens of the country.

However, the current National Government (NG) has taken major strides in bridging the societal, infrastructural and economic gaps that were created by the apartheid system in order to make access to efficient public services a legitimate right for all citizens. After the dawn of democracy, from 1994 to the present day, many programmes were devised to curb the problem of infrastructure backlogs within the municipalities. These include the most popular people-centred *Batho Pele* set of principles in 1997, derived from the Sesotho language and meaning putting people first (Apex, Vision 2014) and the present Municipal Infrastructure Grant (MIG) that privileges 'Back to Basics' (<http://www.cogta.gov.za>).

In addition to the programmes devised, on 11 February 2005, the then Minister of Provincial and Local Government, F.S. Mufamadi at the State of Nation Address of President Thabo Mbeki stated that "in designing the new system of a local government, care has been taken to abolish a framework that divided the White and Black South Africans, to vastly differentiate them using socio-economic environments."

From the above devised programmes and statements, it is evident that the NG has been at the forefront of advancing access to effective public services to all the citizens, especially to those who were previously disadvantaged such as the disabled, the elderly, women and children. Efforts that sought to bridge the disparities which existed prior to post-apartheid were introduced after 1994. Even though major strides have been taken to bridge the socio-economic disparities, infrastructure backlogs are still common within most of the

disadvantaged municipalities. The problem is more acute among women, children, the elderly and the disabled who are vulnerable to all the social ills.

Every municipality in South Africa is tasked with the responsibility by Municipal Systems Act to provide basic services to people within its constituency. This is to fulfil the mandate of providing basic services to all people as enshrined in the South African constitution (<http://www.justice.gov.za>). Municipalities generate their own revenues through collection of taxes (Koelble & Siddle, 2014). However, the revenue generated by the municipalities is insufficient to eliminate infrastructure backlogs and hence the NG has had come into play by providing grants and equitable shares to municipalities (Ndou & Sebola, 2015). It seems the funding provided by the NG and other stakeholders is not enough for municipalities to eliminate what are apparently historical infrastructure backlogs.

This problem of infrastructural backlogs and the funding mechanisms justifies why this research study has been conducted as it seeks to critically analyse the funding methods and if such could help in alleviating infrastructure backlogs within municipalities. Furthermore, the research study has been conducted to establish if there are other reasons besides funding that hinder the elimination of infrastructure backlogs within municipalities.

This chapter presents the aim of this study. This will be followed by research problem and justification, research questions, significance of the study, hypothesis of the study, definitions of key words, scope of the study, overview of theoretical framework, limitations of the study, issues of validity and reliability as well as ethics in conducting the study. Finally, the chapter presents the chapter summary for this study.

1.2 Research aim

This research aims to establish whether funding provided to municipalities for infrastructural and service delivery projects is enough to eliminate the infrastructural backlogs still existing after democracy, and if not, what can be done to help eliminate these infrastructure backlogs within municipalities. In addition, the researcher aims to construct a potential best practice framework that could be used within municipalities for good governance that in tandem improves efficiency and effectiveness. The next section presents research problem and justification of this study.

1.3 Research problem and justification

There are many citizens around the country without access to proper basic services such as water, sanitation, electricity, roads, education, and health even though NG and other stakeholders have been providing funding to municipalities (Swart, 2013; Alexander, 2010). This study seeks to determine whether the funding provided by government department such as Cooperative Governance and Traditional Affairs (COGTA) in the form of grants and loans, private sector and generated by local authority is enough to eliminate infrastructure backlogs. In addition, the researcher seeks to uncover any other causes besides funding that may hinder progress of infrastructure backlogs alleviation.

The justification of this study is based on the fact that even though apartheid is history now, municipalities still have some communities that do not have access to basic services as enshrined in the constitution of South Africa (Mashamaite, 2014; Swart, 2013; Hough, 2011). Moreover, the researcher wants to determine if other reasons such as maladministration, corruption and lack of skilled employees, as noted from previous work have an influence on infrastructure backlogs (Mbecke, 2014; Hough, 2011; Dzansi & Dzansi, 2010). In the next section the research questions are presented.

1.4 Research questions

In order to address and answer the research problem stated above, the following research questions were formulated:

- Is there a relationship existing between funding and infrastructure backlog?
- Is spending in municipalities aligned with the local development needs and priorities?
- Do municipalities use funds received and generated effectively and efficiently to eliminate infrastructure backlogs?
- What other factors besides funding hinder progress in reducing infrastructure backlogs?
- Which leadership qualities are needed for senior management within the municipality in order to eliminate infrastructure backlog?

After the formulation of research questions, the researcher delved into the significance of the study.

1.5 Significance of the study

The study could help national government (NG) and all other government departments responsible for providing basic services to the citizens in monitoring service delivery needs through effective governance and service administration. In addition, this research study provides a potential best practice document that can be used as a framework to cater for the provision of quality basic services in order to eradicate infrastructure backlogs. The next section presents hypothesis of this study.

1.6 Hypothesis of the study

Raha (2011) defines hypothesis as a claim made on the basis of limited evidence that should be tested to confirm whether it is true or false. In this study, the researcher claimed that funding from NG, local authority and other stakeholders is too little to clear infrastructure backlogs within municipalities. Hence, the researcher conducted a regression analysis (See Chapter 4) to test whether this claim holds or not. This can be used to determine whether municipalities are using the funds effectively and efficiently towards eradication of infrastructural backlogs. The next section presents definitions of keywords associated with this study.

1.7 Definitions of key words

Valerica (2015) defined a key word as a central idea to the overall argument under discussion. Various key words were identified in this study: local governance, funding, infrastructure, backlog, municipality, Emfuleni Local Municipality, Municipal Financial Framework and Service Delivery Framework. However, three central key words for this study are discussed below and these are funding, infrastructure and backlog.

1.7.1 Funding

Funding is defined as money provided by an organization or government, to a recipient in order to cater for a particular purpose (Financial and Fiscal Commission, 2013). In this study, funding refers to money received from government and other stakeholders as well as collected by municipality for providing services, to assist municipalities in providing effective basic services to the people within their jurisdiction. It is part of this funding that keeps local municipalities able to provide services to its people.

1.7.2 Infrastructure

According to Financial and Fiscal Commission (2013) infrastructure refers to basic organizational facilities needed for the operation of a society. In this study, infrastructure is used to refer to all basic services as enshrined in the bill of rights that people within this country should have access to such as water, sanitation, electricity, roads, education, and health care facilities. Municipalities have the responsibility of making sure that they service and maintain existing infrastructure. In addition, it is their responsibility as well to create or build new ones to supplement the depleted ones, and to provide quality service to the people.

1.7.3 Backlog

Local Government and Municipal handbook (LGAM) defines backlog as an accumulation of uncompleted work. In this study, the researcher uses backlog to refer to the total amount of renewal work that needs to be undertaken to bring a municipal's asset stock up to an acceptable standard. Furthermore, the researcher considers all different types of infrastructure backlogs which still exist and that are materially affecting the livelihoods of people from the grassroots level.

After the analysis of keywords, the researcher delved into the scope of this study. The scope of this study looked specifically on Emfuleni Local Municipality (ELM).

1.8 Scope of the study

Currently, there are two hundred and seventy-eight (278) government municipalities within South Africa (<http://www.cogta.gov.za>). These consist of eight (8) major urban, forty-four (44) district i.e. suburban and two hundred and twenty-six (226) local. The duty of these municipalities is to assist the national government in growing economies at the local level in order to provide basic services to the communities around them (<http://www.cogta.gov.za>). Hence, municipalities should raise their own revenues in order to reduce dependence from national government.

There are many studies that have been conducted in terms of local government funding and infrastructure backlogs in South African municipalities such as Nelson Mandela Bay, Thulamela and Mafikeng, but none has focused on Emfuleni Local Municipality (ELM). It is

important to use ELM as a case study because ELM is moving towards becoming an urban municipality from a sub-urban, the major challenge that even advantaged municipalities are failing to keep in providing basic services to their people due to population growth.

Map 1: Map of the case study: Emfuleni Local Municipality - As one of three (3) municipalities that make up Sedibeng District)



Taken from: <http://www.localgovernment.co.za/locals/view/60/Emfuleni-Local-Municipality>

Emfuleni Local Municipality, hereafter called ELM, is located in Sedibeng District in Gauteng Province. It is one of the three municipalities, together with Midvaal and Lesedi, that make up Sedibeng District. It covers an area of approximately 987 km² (www.emfuleni.gov.za). ELM is well known for its rich history such as the Constitution of South Africa (1996) signing in Sharpeville, the Sharpeville Massacre (1960), and the Anglo-Boer War (1899 - 1902).

In addition, ELM consists of two main town centres, Vanderbijlpark and Vereeniging, which are known for their iron and steel industrial contribution to the country. It also consists of the Vaal River on the southern part, which provides economic development through tourism. Finally, it has six townships, which are Boipatong, Bophelong, Evaton, Sebokeng, Sharpeville and Tshepiso, which receive services rendered by ELM (www.emfuleni.gov.za).

The next sections cover the theoretical frameworks used for this study. Service Delivery Framework (SDF) and Municipal Financial Framework (MFF) were analysed into detail.

1.9 Overview of theoretical framework

The researcher used Service Delivery Framework (SDF) as the theoretical framework for this study. A Service delivery framework is defined as an organisational set of principles, standards and policies adopted by the national government with a view to providing quality public services to its citizens (UNDP). Many countries around the world have adopted the SDF in order to provide public services. There are four types of SDF in providing basic services to the people and these are: direct service delivery, decentralization service delivery, alternative service delivery and privatization service delivery. Furthermore, Municipal Financial Framework (MFF) is used to critically analyse municipal funding and revenue collection.

1.9.1 Types of Service Delivery Framework

(a) Direct Service Delivery

In this delivery service framework, the national government performs all the responsibilities by itself. It is responsible for everything in terms of providing goods and services to the entire nation (Hollingsworth, & Hanneman, 2012). Hence, all operations in provision of goods and services are centralized by the national government.

(b) Decentralization Service Delivery

This type of service delivery allows delegation of functions from national government to local government bodies (Brosio, 2014). It is the most common practised service delivery in the world (Hollingsworth, & Hanneman, 2012). Local authorities (municipalities) have the responsibility of providing services to the people. Due to their close proximity to the public, local municipalities are in a better position to have the best and relevant information about service delivery needs of a specific community, as needs of communities differs by place.

(c) Alternative Service Delivery

This service delivery type allows the national government or its local bodies to partner with private organisations in the provision of goods and services to the public based on contractual agreements (Brosio, 2014). The contractual agreements are mostly for private organisations to be hired for a certain period in providing their critical services to the public. In South Africa, this is called a tender system, where private organisations bid for specific projects as advertised by the national or local government. However, the national government or local government have the ultimate power in controlling every provision of goods and services to the people rendered through the tender system.

(d) Privatization Service Delivery

The national government assigns the delivery of public services to private organisations. In such a scenario, the national government takes no responsibility in the provision of services to the public, except making sure that private organisations are compliant with national laws of the country. The good thing about this type of service delivery is increased efficiency level in the delivery of services to the people. In addition, sometimes it gives private organisations a feel of being part of the country and making them contribute towards resources in the improvement of lives of the citizens (Hollingsworth & Hanneman, 2012).

1.9.2 Municipal Financial Framework

Municipal Financial Framework, hereafter called MFF, is a framework adopted by local governments in South Africa to assist them in collection and receiving of revenue (Ruiters, 2013). Three major sectors always help municipalities with revenue in order for it to be able to fund its projects. These are national government, the private sector and the ability to raise funds for local authority. In this study, all funding sectors are considered in funding the municipalities.

Overall, the researcher used both decentralization and alternative service delivery as these are relevant to the South African context of service delivery (Dookie & Singh, 2012). MFF is used for this study as a framework for revenue collection and funding (Ruiters, 2013). In a nutshell, the SDF is used as a national framework that clearly determines the nature, scope, extent and level of work for social development services and as a basis for determining proper norms and standards towards provision of services, which provide a basis for funding and greater efficiency and effectiveness in rendering services. The next section presents limitations of this study.

1.10 Limitations of the study

This research study focuses only on an emerging urban municipality, Emfuleni Local Municipality (ELM) and hence the research findings of this study can only be used to generalize urban municipalities in South Africa. In this regard, research findings are not to be used to infer rural municipalities, which also have problems of infrastructure backlogs. In addition, the research study uses participants from the supervisory level to senior managerial level within the municipality, as these are the public officials who have knowledge about decision making processes at local government levels, thereby making the findings limited in terms of scope and voice. After analysis on limitations of this study, the researcher follows presenting issues centred on validity and reliability related to this study.

1.11 Issues of validity and reliability

Validity refers to the approximate truth of inferences (Trochim, 2006). In this study, the researcher used a pool of diverse participants from supervisory level to senior managerial level within the municipality in order to secure a richer set of responses. Yin (2014) defined reliability as consistency of the measures and it was determined using Cronbach Alpha value whether it is being above or below 0.7. Any value greater than 0.7 is deemed to be adequately reliable (Field, 2013). The next section presents ethics in carrying out this study.

1.12 Ethics

According to Cohen and Lynch (2014) any research study that involves the participation of people requires clearance from the Human Ethics. In order to adhere to the rules and laws pertaining conduct of the researches around the world, the researcher applied for ethics clearance from North-West University Research Ethics Committee and was cleared. Hence, all the procedures in carrying out the study were strictly adhered by the researcher before, during and after collection of data. Finally, chapter summary was presented as the last section on this study.

1.13 Chapter Summary

Chapter 1 introduces and discussed the background, aims, problem statement, justification and significance of the research study. It also dwelt on the overview of the theoretical framework to be used in this study, limitations and ethics of the study. Finally, validity and reliability of the study were established to ensure the accuracy of the research findings.

Chapter 2 - Literature Review & Theoretical Framework

2.1 Introduction

Chapter 2 aims to provide a critically analysis on the previous work in terms of local government funding and infrastructure backlogs around the globe, but mainly specific to South African context. Issues on service delivery framework is discussed using both decentralized and alternative service delivery modes. In addition of Service Delivery Framework (SDF), the research also examines Municipal Financial Framework: the legislative and policy framework for municipal revenue collection. Finally, the main issue of municipal spending is also reviewed whether their spending is aligned with the needs and priorities of the local people.

2.2 Literature review

There is huge work in the domain of local government funding for service delivery. The researcher of this study consulted and scrutinized various government official reports, scholarly works, journal articles and textbooks. This was done in mind of addressing issues pertaining to South African local government funding and its infrastructure backlogs.

Municipalities rely mainly on its own revenue and intergovernmental fiscal transfers to fund its activities. In South Africa, local governments are generally self-financing, meaning they generate most of its own revenue to fund its operations (Manyaka, 2014). Due to economic disparities across the country, some municipalities have less revenue to fund their operations, and this is when intergovernmental fiscal transfers comes into play to make sure all municipalities are funded well (Thornhill, 2012).

Funding for local government may come as public contributions and donations, other revenue sources, grants and subsidies and external loans (Thornhill, 2012). Municipalities use these revenues to provide services to the public. Provision of these services requires the public to pay for the services rendered to them. According to Scott (2008) most municipalities within the country continues to incur consumer debt due to failure by the public to pay for their dues for services provided to them.

In his study entitled "Collection of municipal own revenue in South Africa: Challenges and Prospects" Manyaka (2014) tries to explore the ability of municipalities around the country in collecting revenue for the services it provides to the public. This paper highlighted that

municipalities were finding it difficult to collect revenue for the services they rendered mostly in rural municipalities. Hence, this situation further created imbalances between municipal responsibilities and financial resources, resulting in service delivery backlogs.

Mashamaite (2014), in his study “Public service delivery protests in a democratic South Africa: A dilemma for local municipalities” tries to assess the reason(s) for persisting public service delivery strikes in South Africa. Mashamaite further identified poor service delivery as the main cause of strikes by South African communities. These results are similar to what was found by Alexander’s (2010) study entitled “Rebellion of the poor: South Africa’s service delivery protests – a preliminary analysis” and Hough’s (2008) study “Violent protest at local government level in South Africa: Revolutionary Potential?”. In addition, Alexander (2010) further argued that poor service delivery was due to self-serving and corruption by municipalities office bearers.

Furthermore, Jili (2012) study entitled “The perceptions of youth on service delivery violence in Mpumalanga Province” tries to get an insight on the causes of service delivery protests. The author found that historical imbalances created by apartheid regime was a cause why the government of that present time was unable to provide quality service delivery. The author also found that lack of funding, corruption, nepotism, poor management, unskilled workers and pro-market policies were contributing immensely to issues of lack of service delivery. Overall, author found out that all these causes were cultivated by frustration and anger towards government lies only when they want people’s votes during election times. This was congruent with the findings from Mottiar and Bond (2011) study entitled “Social protest in South Africa”. Finally, Jili (2012) study proposed for South African government to go back to the people-centric service delivery style (Batho Pele) in order to be able to cater for the relevant needs and priorities at the grassroots level.

Pretorious and Schurink (2007) study entitled “Enhancing service delivery in local government: The case of a district municipality” offers a leadership model in order to eliminate infrastructure backlogs within a municipality in South Africa. Authors of this paper, proposed the use of Retro Advanced Leadership Model to help municipality management in provision of efficient services to the public. This is similar to studies such as by Ndou and Sebola (2015) who called for training of government personnel.

Similar studies have also been conducted in other countries about local government funding and infrastructure backlogs such as O’Brien and Pike (2015) in United Kingdom; Suman

(2014) in India; Dollery, Kortt, and Bligh (2012) in Australia; Nallathiga (2012) in cases of Sweden and Denmark; and Olatunji, Taiwo, and Adewoye (2009) in Nigeria.

The above-mentioned studies show that many work have been conducted within this service delivery domain to assist in provision of better services to the citizens around the world. However, no related work has been done so far on this topic in ELM, hence this make this study so important especially to the community of Emfuleni Local Municipality.

2.3 Theoretical framework

The researcher applied Service Delivery Framework (SDF) as the theoretical framework. Only two types of SDF that are relevant to the South African context was applied. These are decentralization service delivery and alternative service delivery.

Types of Service Delivery Framework relevant to this Study

(a) Decentralization Service Delivery

This type of service delivery allows delegation of functions from national government to local government bodies (Brosio, 2014). It is the most common practised service delivery in the world. Local authorities (municipalities) have the responsibility of providing services to the people. Due to its close proximity to the public, local municipalities are in a better position to have the best and relevant information about service delivery needs of a specific community, as needs of communities differs by place.

(b) Alternative Service Delivery

This service delivery type allows the national government or its local bodies to partner with private organisations in the provision of goods and services to the public based on contractual agreements (Brosio, 2014). The contractual agreements are mostly for private organisation to be hired for a certain period in providing their critical service to the public. In South Africa, this is called a tender system, were private organisations bid for specific projects as advertised by the national or local government. However, the national government or local government have the ultimate power in controlling every provision of goods and services to the people.

The Emfuleni Local Municipality uses these two types of service delivery modes in providing services to its people. In decentralization service delivery, ELM as the local body close to the people on the ground makes sure that the laws, policies and strategies of the country are adhered to. In alternative service delivery, ELM advertise and as well awards the tenders for each project to the private organisations. ELM does all this to make sure that all its people have access to quality services.

Finally, the researcher examined the Municipal Financial Framework, the legislative and policy framework for municipal revenue funding and collection (see Figure 1).

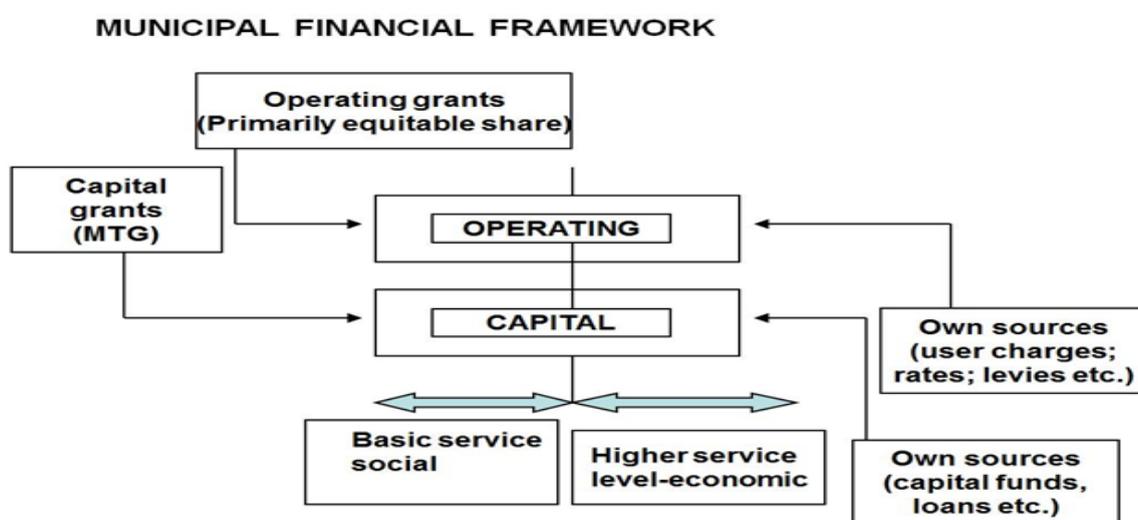


Figure 1: Municipal financial framework for municipalities in South Africa (Sourced from Ruiters, 2013)

MFF is a framework adopted by local governments in South Africa to assist them in collection and receiving of revenue (Ruiters, 2013). In this study, ELM as being part of the local government authority, uses MFF in execution of its responsibilities.

Legislative framework for revenue funding and collection in South African municipalities

Revenue collection and funding by municipalities in South Africa is guided by legislation and policy documents in order to regulate municipal financial administration and management. The legislation and policy documents consists of mainly three items: The Constitution of the Republic of South Africa (1996), Municipal Finance Management Act, 56 of 2003 and Municipal Property Rates Act, 6 of 2004.

(a) The Constitution of the Republic of South Africa (1996)

The financial policies in the Constitution of the Republic of South Africa are aimed at promotion of general welfare of the citizens. Municipalities are obliged to plan and run activities that improve the lives of local people at grassroots level. In addition, the constitution provides public administration and management in all government spheres to be efficient and effective in use of the resources in the provision of better lives for all the citizens within the country.

(b) Municipal Finance Management Act, Act 56 of 2003

It is a legislative component of transformation framework. It is used as a monitoring mirror of norms and standards for financial management at local government level within South Africa. It looks at things such as regulation of municipal finances, municipal borrowing framework and set requirements for effective revenue management.

(c) Municipal Property Rates Act, Act 6 of 2004

According to Bekink (2005) municipalities within South Africa are entitled to charge rates for the provision of services to the citizens. However, the rates charged should be fair as per the service rendered. They also have power exclude certain properties from rating.

Finally, the correct adherence and application to the suggested theoretical framework, will make sure that all the proposed plans of the municipality are sufficiently administered and managed, and hence able to reduce infrastructure backlogs still prevalent in many communities around the country.

2.4 Chapter Summary

This chapter managed to discuss the previous work done in the service delivery domain. It also discussed the types of service delivery modes used by municipalities at local government level in order to eradicate infrastructure backlogs. In addition, revenue funding and collection by local government authority (municipality) was discussed in light of making

sure that municipalities will be able to fund its projects in order to provide quality services to its people.

Chapter 3 – Research Methodology

3.1 Introduction

The current chapter explicates the research methodology used during the research study which was chosen to answer the research questions as stated in Chapter 1. A recap of the research question is as follows:

- Is there any relationship existing between funding and infrastructure backlog?
- Are municipalities spending aligned with the local developments needs and priorities?
- Do municipalities use the funds received and generated effectively and efficiently to eliminate infrastructure backlogs?
- What other factors besides funding could hinder progress of infrastructure backlogs?
- Which leadership qualities are needed for top management within the municipality in order to assist in eliminating infrastructure backlog?

The chapter begins by discussing the types of research methodologies that can be applied to research studies, and the justification of the selected research methodology used in this study. Also, it identifies how the participants were selected (sample) from the define frame (population) under consideration is discussed in detail. Validity and reliability of this study is discussed. The chapter ends by discussing ethical issues including anonymity and storage of data.

3.2 Types of research methods

Each research study should always contain either qualitative or quantitative (or both) research methods (Kumar, 2011). Coolidge (2006) states that qualitative research is a collection of data that reflects the quality or nature of a particular phenomenon in the form of a description. Furthermore, Coolidge (2006) describes quantitative research as a type of methodology that seeks to answer questions of how, where, who and how by trying to identify the relationship between specific variables. However, in this research study the research applied a mixture of both qualitative and quantitative research methodology sometimes called mixed method research to answer the research questions concerning this study. According to Kapoor (2016) quantitative method looks for one answer whilst qualitative method focuses on generating multiple answers.

3.3 Justification of the research methods

The research applied is a mixed method research strategy. The use of this research methodology was influenced by the need of generating a mixture of one or multiple answers. In addition, this was made possible due to the questionnaire structure which contained both closed-ended and open-ended questions. Closed-ended questions used a Likert-scale of 1 to 5, only allowing one answer to be selected by the participants. Open-ended questions allowed the study to generate multiple answers, as participants are able to express their opinions and views with limitations, hence generating a rich set of responses.

3.4 Population and Sample

Using a population in research is always the best thing to do to remove bias (Kumar, 2011). However, due to time constraints and expensive costs, a sample can be selected for a particular study and used to act as an entire population (Kumar, 2011). Hence, the subsection below looks at population and sampling in detail for this particular study.

3.4.1 Target population and sample

According to Banerjee and Chaudhury (2010) population is defined as all elements of interest under a particular study, and hence the population of this study is all South African urban municipalities. Furthermore, Banerjee and Chaudhury (2010) defined sample as a subset of a population, and ELM would be used as the sample framework for this study.

3.4.2 Sampling methods

According to Kumar (2011) sampling is a process of identifying and recruiting the participants to represent the entire or whole population. In simple terms, it is a procedure that is used for choosing a subset from a population to participate in the study. Sampling is normally preferred instead of the whole population because it is time consuming and expensive to use the whole population (Kumar, 2011). The sample is then used to represent all South African urban municipalities. The researcher used convenient sampling to gather data from the participants.

3.5 Data collection methods

The study was conducted at Emfuleni Local Municipality (ELM). It is a local municipality located in the Gauteng South region. ELM has various departments or units that are responsible for the entire provision of services to its local people (www.emfuleni.gov.za).

A structured questionnaire was used as an instrument for data collection in this research study. Questions in the questionnaire were compiled by the researcher using the existing literature centred on questions about local government funding and infrastructure backlogs. It consisted of both open-ended and closed-ended questions. Open-ended questions allowed participants to respond in their own words and capture participant's own ideas as it is narrated. Open-ended questions provided longer texts to the researcher, hence allowing more opportunities to discover new themes and relationships (Bernard & Ryan, 2010). On the other hand, closed-ended questions prevented more missing data as it allowed one answer compared to open-ended questions (Bernard & Ryan, 2010).

In recruiting the participants for this research study, the researcher used a convenience approach mixed with random selection in order to make sure all participants from at least supervisory role were well represented. This was made possible because the researcher did a self-administered data collection. After data collection, the researcher used statistical software called Statistical Package for Social Sciences (SPSS) to record and analyse quantitative data whilst NVivo software was used to generate themes from qualitative data. Hence, this allowed the researcher of this study in securing a more diverse and rich set of responses that could help in answering the research question, hence able to provide a solution for the research problem.

3.6 Validity and Reliability

Trochim (2006) defined validity as an approximate truth of inferences. Validity concerns in this research study were addressed by interviewing multiple participants from supervisory role or above within ELM, hence securing a richer set of responses. In addition, a well-constructed questionnaire after a comprehensive scrutinization of the previous work contributed towards validity of this study. Also, the explanatory statement sent to the participants before the questionnaire completion provided a solid basis for building trust and contributed immensely to validity of this study.

Yin (2014) defines reliability as consistency of the measures. Reliability concerns were determined by statistically by Cronbach alpha value. Any value of Cronbach alpha close to 1, it is regarded as reliable (Field, 2013). Moreover, the use of a theoretical framework: SDF and MFF provided the reliability in this study. As stated by Davison (2004), having a theoretical framework prevents the researcher from getting lost in a pool of rich and voluminous sea of data.

3.7 Ethics concerns, anonymity and storage of data

Cohen and Lynch (2014) states that all studies that involve the participation of people should apply and obtain ethical clearance before start of the study. The researcher applied for and obtained the ethics approval from North-West University Research Ethics Committee before start of the study. All data collection processes were done in accordance with the ethics code of conduct. Before the study, aims and objectives of the study were made clear to the participants to ensure highest level of ethical standards and integrity was met.

Prior to questionnaire completion, no collection of names was done. This was to make sure that identities of the participants remain anonymous. In addition, the researcher guaranteed participants that data collected was intended for use only in this study. Hence, no use of this data for other purposes.

Finally, storage of data was done in accordance with North West University regulations. Data collected would be kept in a safe for at least ten years in accordance with the research policy of North-West University and later destroyed permanently after elapse of that period.

3.8 Chapter Summary

This chapter discussed types of research methodologies and the justification of the preferred research methodology. Also, data collection methods, validity and reliability of the study were discussed. Finally, ethical concerns were discussed centred on anonymity and storage of data, in order to make sure participants' rights are not violated.

Chapter 4 – Findings and Discussions

4.1 Introduction

The main aim of this chapter is to present the research findings of the study on local government funding and infrastructure backlogs. Research findings on local government funding and infrastructure backlogs were statistically analysed using Statistical Package for the Social Sciences (SPSS) version 23 as well as use of NVivo for thematic analyses. Results of this study were presented in form of tables, figures and themes.

4.2 Demographics

4.2.1 Participants Gender

Figure 2 shows that 17 (53.13%) of the participants were male and 15 (46.88%) were female. It indicates that the difference between participants used in this study based on gender was very small. Hence, male and female participants were almost of equal proportion.

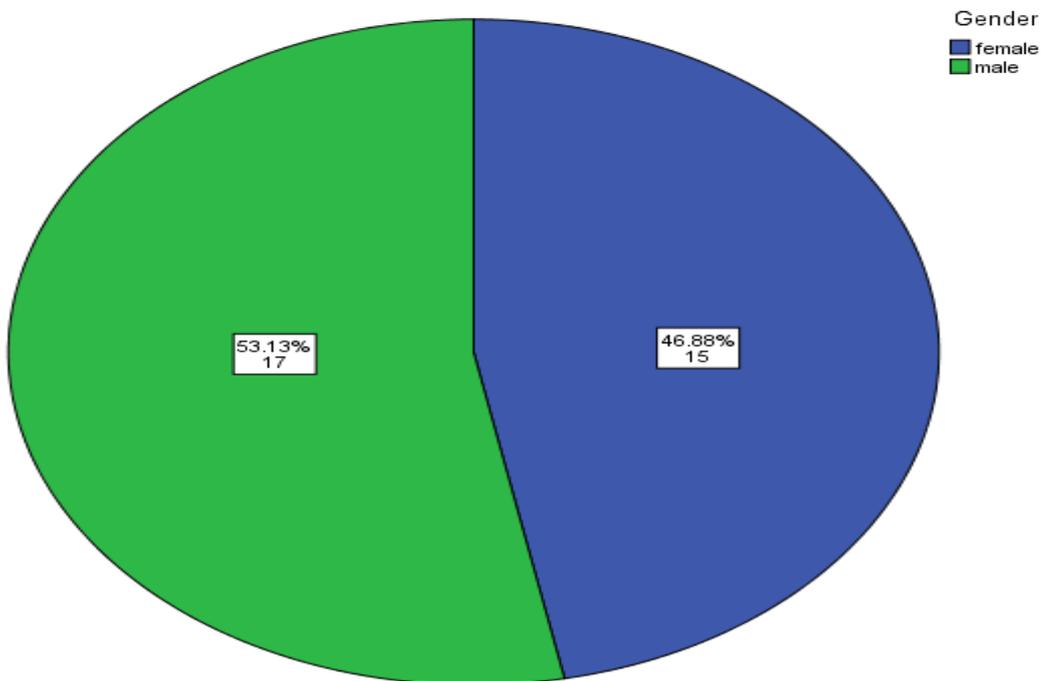


Figure 2: Pie chart representing participants based on gender

4.2.2 Participants Age Group

Table 1 shows that out of the 32 participants, 19 (59.40%) were aged between 20 and 40 years old, 13 (40.60%) were aged between 40 and 60 years old. No participant was recorded for age groups of less than 20 years old and above 60 years old.

Table 1: Statistical Distribution of Participants Age Group

Age Group (Years)	Frequency	Percentage
Less than 20	0	0.00
Between 20 and 40	19	59.40
Between 40 and 60	13	40.60
Above 60	0	0.00

4.2.3 Participants Job Position Category

This question was posed to participants in order to capture if they were part of decision makers or not. Supervisory category (56.25%) contributed the highest proportion of the participants, whereas management category contributed about 40.63% and executive category contributed 3.13% (see Figure 3). This shows that all the participants used in this study were part of the decision-makers, hence providing a great opportunity in generation of rich responses for analysis.

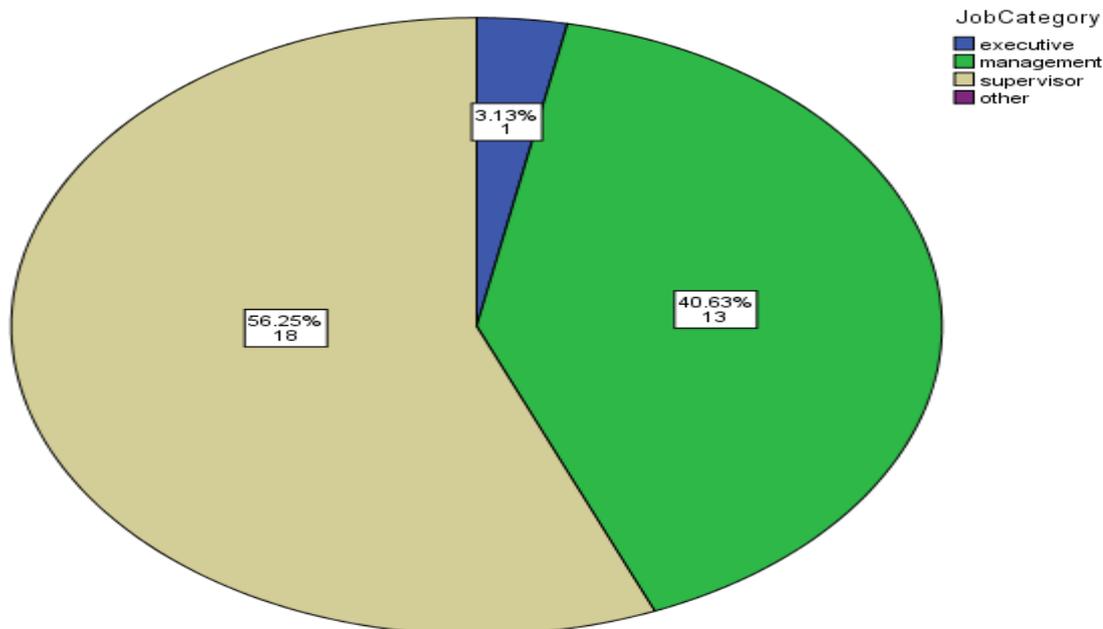


Figure 3: Pie chart representing participants based on job position category

4.2.4 Participants Work Experience

This question asked participants to get an idea of how long they had been employed within the municipality. This is vital for this study as the more the number of years working inside the municipality the more that the employee is likely to have rich information about the issues affecting the municipality. Hence, generation of rich responses which will be relevant to the study and help in municipals future. Figure 4 shows that the mean working year experience is 2 (mean = 2.38). This represents participants having a municipal working experience of between 1 and 5 years. In addition, the distribution is almost symmetrical and unimodal (one mode). Finally, the mode is 3 (the highest bar as shown in Figure 4) and this shows that majority of people were having a municipal working experience of between 6 and 10 years. Hence, this shows the participants used in this study can generate useful and rich responses.

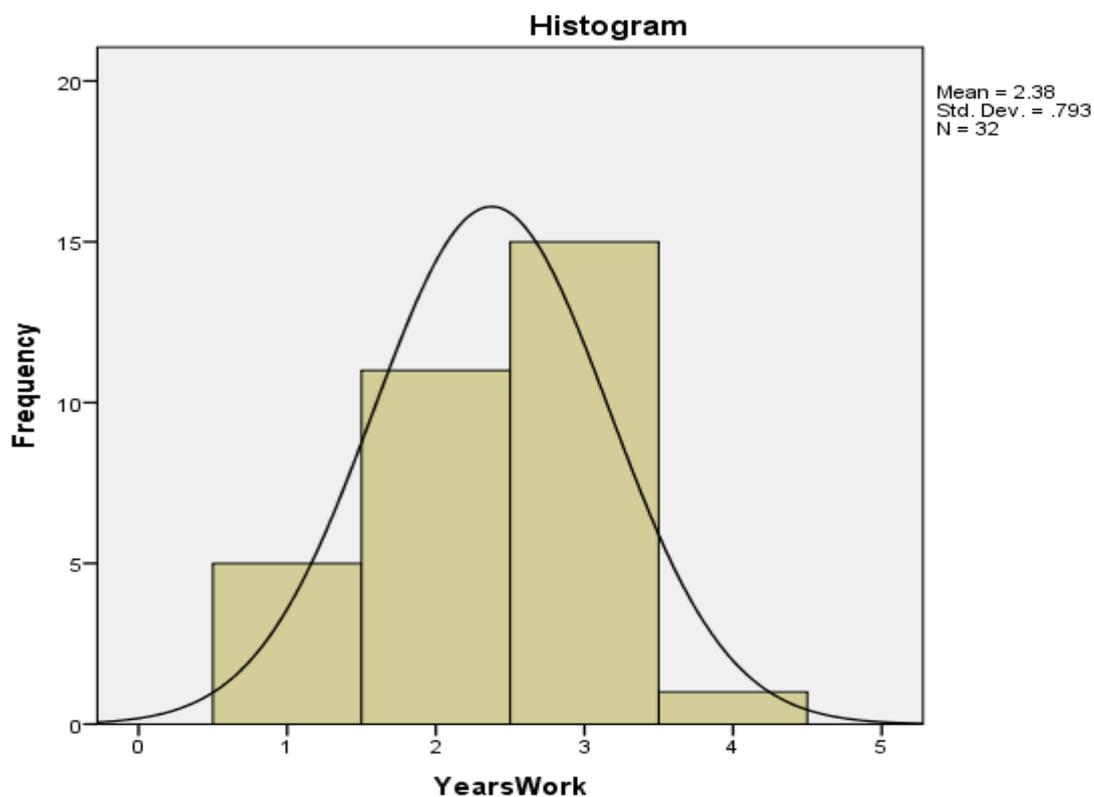


Figure 4: Histogram representing participants based on municipal working experience

(Note: 1 = less than a year; 2 = between 1 and 5 years; 3 = between 6 and 10 years; 4 = more than 10 years).

4.2.5 Participants Highest Level of Education

Majority of the participants had at least an undergraduate degree as their highest qualification of learning. None among the participants were having matric as their highest qualification (see Table 2). However, participants with at least postgraduate were below half i.e. 50%, and hence it can be argued that this study had few participants who can be regarded as extremely learned.

Table 2: Statistical Distribution of Participants Highest Level of Education

<i>Qualification</i>	<i>Frequency</i>	<i>Percentage</i>
Undergraduate degree	21	65.60
Honours degree	5	15.60
Master's degree	4	12.50
PhD	2	6.30
Matric	0	0.00

From the above discussed demographics, the study shows an almost equal representation between gender, majority of participants having more municipal work experience and majority of participants being holders of at least an undergraduate degree.

4.3 Response rate of the study

Thirty-five (35) questionnaires were distributed within the ELM, of which thirty-two (32) were completed and returned. The response rate of this research study was 91.43%. Fincham (2008) states that according to the American Journal of Pharmaceutical Education, a response rate of at least 60.00% is acceptable for a research study. Accordingly, it could be argued that this study managed to achieve a response rate that is within the acceptable range.

4.4 Analysis of Research Instrument

4.4.1 Reliability

The researcher developed a questionnaire after a thorough scrutiny of various materials related to local government funding and infrastructure backlogs. In order to determine the reliability of the questionnaire, a reliability test was carried out. This is to check if individual items on a questionnaire are measuring characteristics of same constructs. Field (2013) states that any Cronbach's alpha value more than 0.7 is deemed to be adequately reliable. The Cronbach's alpha value for this study was obtained as 0.732, hence adequately reliable (see Table 3).

Table 3: Reliability Test

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	Number of Items
0.732	0.486	19

4.4.2 Descriptive Statistics

In this section participants were asked to give their general opinions about funding towards infrastructure eradication. Six questions were asked and their responses were analysed using descriptive statistics.

1. Is the overall funding to the municipality enough to provide quality services?

This question asked participants to get an overall idea on whether funds received from different sectors were enough to cater for all the municipal needs in order to eradicate infrastructure backlogs. Participants stated that they disagree (mean = 2.11) with the notion that the overall funding towards municipalities was sufficient in order to cater for all the municipal needs. Hence, municipal was still faced with a dilemma of infrastructure backlogs within the areas. Table 4 sums these responses.

Table 4: Statistical Distribution of overall funding

Sr.	Overall funding	Mean	Median	Mode	Std. deviation
1	Is the overall funding to the municipality enough to provide quality services?	2.11	2.17	1	0.810

Note: 1 = strongly disagree, 2 = disagree, 3 = neither disagree nor agree, 4 = agree, 5 = strongly disagree

2. Are the proposed municipal investment plans receiving adequate support from all stakeholders?

This question sought from the participants an idea on whether municipal infrastructure plans were getting enough support from all players that make local government functions viable. Table 5 shows that participants disagreed (mean = 2.33) with the notion that the proposed municipal investment plans were having adequate support from all the stakeholders.

Table 5: Statistical Distribution of proposed municipal investment plans

Sr.	Proposed municipal investment plans	Mean	Median	Mode	Std. deviation
1	Are the proposed municipal investment plans receiving adequate support from all stakeholders?	2.33	2.33	1	0.880

Note: 1 = strongly disagree, 2 = disagree, 3 = neither disagree nor agree, 4 = agree, 5 = strongly disagree

3. Do you receive funds from the private sector for other projects not listed in your development plans?

Participants were asked whether the private sector contributed funds towards projects not on municipal long-term plans. Participants stated that they disagree (mean = 2.38) with the sentiment that private sector were providing funding towards projects not listed municipal development. See Table 6

Table 6: Statistical Distribution of private sector funding towards projects not on municipal plans

Sr.	Private sector funding towards projects not on municipal plans	Mean	Median	Mode	Std. deviation
1	Do you receive funds from the private sector for other projects not listed in your development plans?	2.38	2.00	3	1.129

Note: 1 = strongly disagree, 2 = disagree, 3 = neither disagree nor agree, 4 = agree, 5 = strongly disagree

4. Is the municipality adequately capacitated to execute its operations?

This question asked participants if they thought that they were adequately capacitated in order to have an idea whether municipals were adequately resourced to perform their functions of providing quality service. Participants stated that they disagree (mean = 2.41) with sentiment of municipals being adequately resourced to execute their operations (see Table 7).

Table 7: Statistical Distribution of municipal capacitation

Sr.	Municipal capacitation	Mean	Median	Mode	Std. deviation
1	Is the municipality adequately capacitated to execute its operations?	2.41	2.00	2	1.103

Note: 1 = strongly disagree, 2 = disagree, 3 = neither disagree nor agree, 4 = agree, 5 = strongly disagree

5. Is the municipality providing sufficient training to its employees?

This question was asked participants to depict whether municipals employees were receiving sufficient to help them in delivering effective services. Participants reported that they disagree (mean = 2.36) with sentiment of the provision of sufficient training to assist them with doing their jobs properly (see Table 8).

Table 8: Statistical Distribution of municipal employee training

Sr.	Municipal employee training	Mean	Median	Mode	Std. deviation
1	Is the municipality providing sufficient training to its employees?	2.36	2.00	4	1.318

Note: 1 = strongly disagree, 2 = disagree, 3 = neither disagree nor agree, 4 = agree, 5 = strongly disagree

6. Which infrastructure do you think the municipality should give preference on their investment proposed plans?

This question was asked participants to rank the infrastructure in terms of their highest priorities. Table 9 shows that participants reported that water, sanitation and electricity were very important whereas roads and other infrastructure such as hospitals and schools were very little important. However, the magnitude of water is bigger than that of sanitation and electricity implying water is the one with the highest prioritization, followed by sanitation and electricity. Roads and other infrastructure such as hospitals and schools are ranked lowest respectively.

Table 9: Statistical Distribution of infrastructure prioritization

Sr.	Infrastructure type	Mean	Median	Mode	Std. deviation
1	Water	3.86	4.00	5	1.274
2	Sanitation	3.67	4.00	3	0.884
3	Electricity	3.60	3.00	3	1.037
4	Roads	2.14	2.00	2	0.743
5	Other e.g. hospitals, schools	1.83	1.00	1	1.649

Note: 1 = not important at all, 2 = very little important, 3 = somewhat important, 4 = very important, 5 = critically important

4.4.3 Regression Analysis

In this section regression analysis was used to test whether a relationship existed between funding and investment projects in order to eliminate infrastructure backlogs. The following hypothesis was carried out and tested.

Step 1: Hypothesis Formulation

H_0 : A relationship does not exist between funding and infrastructure backlogs.

H_1 : A relationship exists between funding and infrastructure backlogs.

Step 2: p-value method

ANOVA TABLE

Model	Sum of Squares	Degree of freedom	Mean Square	F	Sig.
Regression	5.473	1	5.473	8.862	0.006
Residual	18.527	30	0.618		
Total	24.000	31			

Dependent Variable: Infrastructure Backlogs

Predictors: (Constant), Funding

The p value is 0.006 (Anova Table)

Note: Alpha ($\alpha = 0.05$)

Step 3: Decision Criteria

Reject H_0 if p-value < alpha.

0.006 < 0.05 (True)

Step 4: Conclusion

The null hypothesis (H_0) is rejected at 5% level of significance and conclude that there is enough evidence to suggest that a relationship exists between funding and infrastructure backlogs within the South African municipalities. Hence, infrastructure backlogs are affected by funding.

Furthermore, a correlation matrix and coefficient of determination outputs were generated to measure the strength and variation between the two variables.

Correlations

		Infrastructure Backlog	Funding
Pearson Correlation	Infrastructure backlog	1.000	0.478
	Funding	0.478	1.000
Sig. (1-tailed)	Infrastructure backlog	.	0.003
	Funding	0.003	.
N	Infrastructure backlog	32	32
	Funding	32	32

Correlation = $r = 0.478$. This shows that a weak positive correlation exists between funding and infrastructure backlog.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.478	0.228	0.202	0.786

Predictors: Funding

Coefficient of determination = $R^2 = 0.228 = 22.80\%$. This shows that 22.80% of the variation in infrastructure backlogs is explained by funding. The remaining 77.20% of the variation in infrastructure backlogs is unexplained by the model. Since the percentage explained by funding is very small, it means that there are other factors besides funding that also contributes towards infrastructure backlogs.

4.4.4 Themes

Themes were generated using similarities and differences among the opinions generated from participants using qualitative answered questions. Two themes were construed from for this study: factors and suggestions (Figure 5).

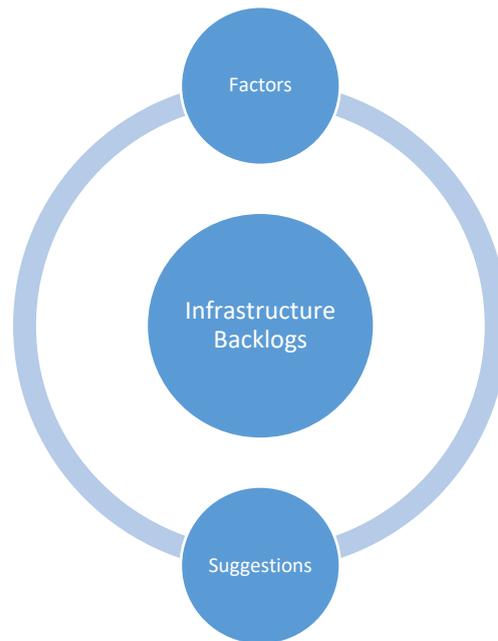


Figure 5: Graphical Representation of Thematic Analyses

(a) Factors

The theme factors were identified to represent other reasons besides funding that causes infrastructure backlogs within the municipality. Participants reported the following:

- ✓ Corruption,
- ✓ Nepotism,
- ✓ Lack of skilled employees,
- ✓ Lack of training for employees,
- ✓ Poor project planning and management,
- ✓ Overpricing by private companies providing services,
- ✓ Lack of strategic planning by local authorities' management personnel,
- ✓ Lack of competent technical staff within the municipalities,
- ✓ Lack of competent contractors to provide quality service,
- ✓ No community consultation,
- ✓ Disruptions of projects by community leaders in pursuit of personal interests,
- ✓ Lack of prioritization, and
- ✓ Bias in tender processes.

(b) Suggestions

The suggestions represent the views of the participants in order to assist in ending infrastructure backlogs within the municipalities. The following suggestions were reported:

- ✓ More involvement by national government,
- ✓ Prioritization of infrastructure during budget process,
- ✓ Tender processes to be undertaken publicly,
- ✓ Introducing efficient and streamlined supply chain processes,
- ✓ Employment of skilled and qualified personnel,
- ✓ Training of general employees and management personnel,
- ✓ Utilisation of internal staff to implement, repair and maintain infrastructure,
- ✓ Build internal capacity in engineering disciplines,
- ✓ Provide more funding,
- ✓ Extensive consultation with communities to understand their urgent and relevant needs, and
- ✓ Develop industries to create sustainable development for local communities.

4.5 Major Findings of the Study

- The study found that male and female were almost equal in proportional representation.
- Majority of the participants were aged between 20 to 40 years old.
- All the participants were in the supervisory role or above.
- Most of the participants were employed within the municipality for a period of between 6 to 10 years.
- Few participants were holders of at least postgraduate qualification.
- Majority of participants disagreed with the notion that the overall funding towards municipalities was sufficient.
- Participants in this study disagreed with the statement that the proposed municipal investment plans were receiving adequate support from all the stakeholders.
- Few participants agreed with the notion of private sector contributing resources towards projects not on the municipal plans.
- Majority of participants disagreed with the sentiments that municipalities were capacitated to execute their operations at their best levels.
- Participants stated a lack of training on employees within municipalities to improve provision of services.
- An infrastructure prioritization was suggested for ELM, as this depend on the place.
- A weak positive relationship was found to exist between funding and infrastructure backlogs.
- Factors such as corruption, nepotism, unskilled workers were also contributing towards failure by municipalities in eradicating infrastructure backlogs.

- The study provided suggestions on how municipalities could eliminate infrastructure backlogs.

4.6 Chapter Summary

This chapter presented the research findings. Data analysis was performed on quantitative data questions. Themes were created from qualitative data questions. All was done in order to answer the research questions formulated in Chapter 1, hence assisting in providing the solution to the problem statement of the current study.

Chapter 5 - Conclusion and Recommendations

5.1 Introduction

The aim of this chapter is to provide a conclusion, submit recommendations and suggest avenues for future studies. It starts by reviewing the theoretical frameworks used: SDF and MFF, which formed the theoretical basis of this study. Secondly, conclusions drawn from the findings are presented. Finally, the chapter ends by putting forward the possible recommendation for future studies.

5.2 Review of theoretical framework

Service Delivery Framework (SDF) and Municipal Financial Framework (MFF) were used to establish the findings of this study by answering the proposed research questions. The main aim of the theoretical frameworks was to guide the process of revenue collection, generation and usage in order to understand if they were aligned to the needs of the people at grassroots level.

5.3 Conclusion & Discussions

This study critically analysed opinions, relationship and causes on local government funding and infrastructure backlogs. In terms of how long a staff member has been employed within the municipality, most of them mentioned between 6 to 10 years. This shows that relevant responses were obtained from experienced employees, who have a better understanding about the municipality operations. In addition, few participants were reported as holders of postgraduate qualification. In this study, all participants were in a supervisory role or above, and hence they were part of decision-makers and training is necessary to them. However, this finding is not surprising as this study revealed training to be a major concern and suggested the need for training to both general employees and management personnel.

The majority of the participants disagreed with the notion that the overall funding towards municipalities was sufficient. This is consistent with the previous studies by Manyaka (2014), Thornhill (2012) and Scott (2008). In addition, a few agreed with the notion that private sector contributes resources towards projects not on municipal plans. This is because sometimes the private sector gives funds for a specific task to be completed and the municipality cannot use that funding to finance its proposed projects. This emerged as one of the causes for infrastructure backlogs (Managa, 2012).

A majority of the participants disagreed with the sentiments that municipalities were capacitated to execute operations at their best levels. This is not a surprising finding as infrastructure backlogs were still prevalent at this present day within municipalities. This is congruent with the stated suggestions on the theme selection for the need to build an internal capacity within the municipality.

Managa (2012) found that a lack of public participation was causing infrastructure backlogs within the municipalities in terms of public views not being considered. This study also found out that lack of consultations within local communities was part of the causes for infrastructure backlogs. This finding may explain the disruptions of projects by community leaders. This may as well answer the principal research questions: Are municipalities spending aligned with the local developments needs and priorities? The omission of local communities and their disruptions of projects shows that spending by municipalities may not be aligned with the needs and priorities of the community.

A majority of the participants in this study mentioned a lack of training, which in turn affects service delivery satisfaction levels by municipal office bearers. However, this finding is not surprising as this study revealed training as a major concern, and Pretorius and Schurink (2011) also called for the need of training to municipal employees.

An association between funding and infrastructure backlogs were reported as existing. This shows funding was a cause for infrastructure backlogs within municipalities. However, its coefficient of determination was low suggesting that there were other factors that contribute towards infrastructure backlogs. Hence, this study also obtained other factors besides funding as contributing towards infrastructure backlogs within municipalities. These results are supported by many previous studies done within the South African context such as Mashamaite (2014), Jili (2012), Madzivhandila and Asha (2012), Mottiar and Bond (2011), Alexander (2010), and Hough (2008).

Water infrastructure was reported as having the highest ranking and ELM should prioritize water services than all other infrastructure, in order to align themselves with the needs and priorities of their community. This is not a surprising finding as the government is advising people to use water wisely due scarcity (www.dwa.gov.za/).

Finally, the researcher of this study can conclude that funding is not the only factor that contributes to the persistence of infrastructure backlogs within the municipalities. This is

supported by the mentioning of various factors within this study as hindering the eradication of municipal infrastructure backlogs, even though funding is available but not beyond expectations. Hence, new ways of funding municipalities may need to be adopted or developed that matches with time.

5.4 Recommendations

This study recommends that ELM to involve community members in giving their input about service delivery. In addition, the study recommends ELM to use funding wisely on services that its people need the most in order to eradicate infrastructure backlogs. This study again supports and proposes the use of people-centred service delivery system (Batho Pele) as proposed in the previous work by Jili (2012). The study also recommends ELM to root out corruption and nepotism by employees. Tender bid system should be made public in encouraging transparent and good governance. Finally, ELM should embark on training of its internal staff to repair, maintain and build new infrastructure, hence reducing revenue expenditure costs.

5.5 Areas for further research

As for future research, it is considered that this study should be replicated at other local government municipalities within South Africa, preferably rural areas in order to establish if congruent results are obtained. In addition, a larger sample should be used in future as well as only quantitative methods and qualitative methods may be used to triangulate the findings of this research study.

5.5 Chapter summary

This chapter provided conclusion, recommendations and avenues for future studies. Service Delivery Framework and Municipal Financial Framework were reviewed and links to the findings of the study were established. Conclusions drawn from the findings were presented. The chapter finally closes by highlighting possible recommendations for future studies.

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APPENDIX A

QUESTIONNAIRE

**Title - Local government funding and the infrastructure backlogs: A case study of
Emfuleni Local Municipality**

By Rasempe Derrick Maaroganye
(26870479)

Supervisor: Professor J Meyer

Participation in the completion of this questionnaire is voluntary. By completing and returning this questionnaire means that you are agreeing for the researcher to use the data or information collected in completion of his research study. During completion of the questionnaire, you are entitled to quit any time, if you feel you are uncomfortable. However, the researcher of this study guarantees you that the publication of the results will be anonymous.

Demographic information

Gender

- Female
- Male

Age group

- < 20 years
- 20-40 years
- 40-60 years
- > 60 years

Job position category

- Executive
- Management
- Supervisor
- Other _____

Number of years working in the Municipality

- < a year
- 1-5 years
- 6-10 years
- > 10 years

Highest education level

- PhD
- Masters
- Honours
- Undergraduate
- Matric
- Other _____

General Questions

Q1. Is the funding received from National Government by your municipality enough to provide quality services?

- Strongly disagree
- Disagree
- Neither disagree nor agree (neutral)
- Agree
- Strongly agree

Q2. Is the funding received from private sector by your municipality enough to provide quality services?

- Strongly disagree
- Disagree
- Neither disagree nor agree (neutral)
- Agree
- Strongly agree

Q3. Is the revenue generated by the local authority i.e. your municipality enough to provide quality services?

- Strongly disagree
- Disagree
- Neither disagree nor agree (neutral)
- Agree
- Strongly agree

Q4. Are the projects proposed in your municipality plans receiving adequate support from National Government?

- Strongly disagree
- Disagree
- Neither disagree nor agree (neutral)
- Agree
- Strongly agree

Q5. Are the projects proposed in your municipality plans receiving adequate support from private sector?

- Strongly disagree
- Disagree
- Neither disagree nor agree (neutral)
- Agree
- Strongly agree

Q6. Are the projects proposed in your plans receiving adequate support from local authority?

- Strongly disagree
- Disagree
- Neither disagree nor agree (neutral)
- Agree
- Strongly agree

Q7. Do you receive funds from the private sector for other projects not listed in your development plans?

- Strongly disagree
- Disagree
- Neither disagree nor agree (neutral)
- Agree
- Strongly agree

Q8. Is the municipality adequately capacitated to execute its operations?

- Strongly disagree
- Disagree
- Neither disagree nor agree (neutral)
- Agree
- Strongly agree

Q9. Do you think your municipality is providing sufficient training (in-house or external) to its employees in order to help in delivering effective services?

- Strongly disagree
- Disagree
- Neither disagree nor agree (neutral)
- Agree
- Strongly agree

Q10. What do you consider to be the biggest factor (only one) that still causes infrastructure backlogs within municipalities?

Q11. What do you think are the other causes of infrastructure backlogs within your municipality? List as many as possible.

Q12. Which infrastructure do you think the municipality should give the most preference in order to provide quality service? Rank in order of highest importance (1=not important & 5=most important)

- Water
- Sanitation
- Electricity
- Roads
- Other _____

Q13. Do you have any suggestions on how infrastructure backlogs within the municipalities can be improved?

Thank you for your participation!!!

APPENDIX B

EDITING CERTIFICATE



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11 November 2016

TO
WHOM
IT MAY
CONCER
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CERTIFICATE OF EDITING

I, Muchativugwa Liberty Hove, confirm and certify that I have read and edited the entire mini-dissertation: Local government funding and infrastructure backlogs: A case study of Emfuleni Local Municipality by Rasempe Derrick Maaroganye, student number 26870479, submitted in partial fulfilment of the Master of Business Administration (MBA) requirements at the Mafikeng Campus of the North-West University.

Rasempe Derrick was supervised by Professor J Meyer of the North-West University.

I hold a PhD in English Language and Literature in English and am

APPENDIX C

CLEARANCE CERTIFICATE



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To whom it may concern

Permission to conduct research -Mr RD Maaroganve-MBA Student

This letter serves to introduce Mr RD Maaroganye who is presently a registered student for Master in Business Administration (MBA) programme at the NWU School of Business and Governance. He is conducting a research project on **"Municipal funding to address the infrastructure investment (Roads) backlog and maintenance: The case of Emfuleni Local Municipality"** towards a partial fulfillment of his MBA programme.

In this regard, your office is requested to afford him full co-operation to conduct this research. In particular, Mr RD Maaroganye requires permission to access information, data or even to distribute questionnaires.

Your cooperation will be highly appreciated.

IJf-1,
Research Unit



Accepted
[Signature]
20/4/2016