

APPLICATION OF THE BUDGETARY METRICS AND OUTCOMES-BASED LOGIC MODEL FOR  
CONTROLLING AND MONITORING PERFORMANCE IN CAPRICORN DISTRICT MUNICIPALITY  
(2014-2019)

by

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### **APPLICATION OF THE BUDGET AND OUTCOMES-BASED LOGIC MODEL FOR MONITORING AND CONTROLLING PERFORMANCE IN CAPRICORN DISTRICT MUNICIPALITY (2014-2019)**

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I declare that the above dissertation is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

I further declare that I submitted the dissertation to originality checking software and that it falls within the accepted requirements for originality.

I further declare that I have not previously submitted this work, or part of it, for examination at Unisa for another qualification or at any other higher education institution.



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## **DEDICATION**

This study is dedicated to Solomon Shepherd, Shamiso, Manuel, Michelle Sithole, Martha Gunguvo, Nehemiah, Joshua, Glory, Martha and Servious Hungwe

## **ABSTRACT**

This study investigates the application of the budgetary metrics and outcomes-based logic models (OBLM) for monitoring and controlling performance in Capricorn District Municipality from 2014 to 2019. The study is inspired by the fact that most municipalities failed to get clean audits during the study period and were subjected to crippling service delivery strikes by dissatisfied citizens. The study seeks to improve the overall performance of municipalities. The scope of the study covered an investigation of the influence of the New Public Management theory (NPM), the legislation on budgetary metrics and OBLM, the assessment of the municipal financial health, triple bottom line outcomes and management accounting practices. In addition, the suitability of the budgetary metrics and OBLM as management and control tools for CDM are assessed. Secondary data from the municipality and other sources, a qualitative gap analysis, quasi-statistical methods, financial ratios, and content analysis were used as methodological approaches in this study. The results of legislative tools such as NPM and the Public Finance Municipal Act no 1 of 1999 (PFMA) were influential in administration, while the Municipal Finance Management (MFMA) Act (2003) exhibited lower influences. Failure to stick to national governance by CDM led to weak municipal financial health, solvency problems, and poor service delivery as CDM failed to meet the expected triple bottom line outcomes. This is despite the fact that CDM continues to receive clean audits and, in the process, win management control awards. The study results and findings partially explain why there is a gap between clean audits and rising service delivery protests. Poor budgetary discipline, internal controls, recruitment policies, corruption and non-compliance with legislation led to poor performance. The study recommends areas of further research to improve municipal performance by finding better ways to apply the budgetary metric and OBLM and bridge the gap between audit findings and service delivery protests.

### **Key terms:**

Budgetary metrics; Outcomes-based logic model; Triple bottom line outcomes; Management and Sustainability Control; Legislation; New Public Management; Management accounting practices; Financial health; Root cause analysis; Service delivery

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## LIST OF ABBREVIATIONS

AGSA	Auditor General South Africa
BRICS	Britain, Russia, India, China, South Africa
CAPEX	Capital Expenditure
CDM	Capricorn District Municipality
CGMA	Chartered Global Management Accountant
COGTA	Cooperative Governance and Traditional Affairs
DDM	District Development Model
DEA	Department of Environmental Affairs
GDP	Gross Domestic Product
GINI RATIO	Gini- coefficient ratio
GRAP	Generally Recognised Accounting Practices
HDI	Human Development Index
IDP	Integrated Development Plan
ICT	Information and Communications Technology
LED	Local Economic Development
LEDC	Less Economically Developed Countries
LMIC	Low to Middle-Income Countries/Emerging Economies
MAPs	Management Accounting Practices
MEDC	More Economically Developed Countries
MFMA	Municipal Finance Management Act

MoF	Minister of Finance
MPAC	Municipal Public Accounts Committee
MSCs	Management and sustainability control systems
NGO	Non-governmental organisation
NPM	New public management
OBI	Open Budget Index
OBLM	Outcomes-based logic model
OECD	The Organisation for Economic Co-operation and Development
OPEX	Operating expenditure
PB	Public budgeting
PBB	Performance-based budgeting
PFMA	Public finance management Act
PPB	Planning-programming budgeting
PPP	Public-private partnerships
RDP	Reconstruction and development programmes
SALGA	South African local government association
SDBIP	Service delivery budget implementation plan
SEZ	special economic zone
RCA	Root Cause Analysis
SGPB	Strategic Planning controls, Governance Controls, Performance Controls and Behavioural controls
SOE	State-owned enterprises

SoLGF	State of Local Government Finances and Financial Management
STATS SA	Statistics South Africa
SWOT	Strength, weaknesses, opportunity, threats
TPM	Traditional Public Management
The USA	Unites States of America

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## CHAPTER 1

### BACKGROUND/ORIENTATION

#### 1.0 INTRODUCTION

This chapter discusses the background, problem statement, research questions and objectives. The scope of the study and the underlying assumptions are also discussed herein. The chapter ends with a summary to conclude the discussion.

This study explores the application of management tools, namely the outcomes-based logic model (OBLM) and budget in municipal administration. These performance measurement tools are applied at international and national levels to control and monitor performance. All municipality administrations have been influenced by new public management theory (NPM) and legislation (Silvestre, Marques, Dollery & Correia, 2020; Zimmer & Grabbe, 2020). Swart and Swanepoel (2019) echo the Open Budget Index (2020) findings that minimal compliance with legislative and NPM policies compromised control and monitoring. This raises the query investigated in this study on the influence legislation and New Public Management theory has had on Capricorn district municipality's application of the budget and OBLM (Naidoo, 2018).

The budget and OBLM are management and sustainability controls used in municipal administration to distribute triple bottom line outcomes to local, provincial, and national government spheres. Gibassier and Alcouffe (2018) affirm this, adding that effective management and sustainability control systems (MSC) should broaden the managerial perspective to encompass tripartite issues (economic, social, and environmental outcomes). A viable municipality should provide all tripartite service delivery to its citizens (State of Local Government Finances and Financial Management Affairs (SoLGA), 2020). While the USA and Chinese municipalities have successfully used the budget and OBLM for monitoring and control, South Africa suffers from poor financial health and weakened service delivery (Aaskoven, 2018; Auditor-General, 2019; Woo, 2020). This study seeks to resolve these issues and determine the root cause of CDM's maladministration.

## **1.1 BACKGROUND OF THE STUDY**

The burden of historical misnomers was carried over to the post-apartheid era when the African National Congress (ANC) took over governance in 1994 (Sithole, & Mathonsi, 2015).

The ANC attempted to restore the imbalance of welfare distribution by implementing initiatives to solve the socio-economic inequalities. The ANC used the municipal budgetary metrics and the outcomes-based logic model (service delivery tool) to redistribute civil rights to its citizens (Hou & Neely, 2018; Kruis, Speklé & Widener, 2016). The government amended legislation and set up national and district level objectives (Capricorn District Municipality, 2018, 2019; Hou et al., 2018). Budget and outcomes-based logic model (OBLM) monitoring and controlling were deemed contingent on achieving these objectives (Aaskoven, 2018).

Control requires directing an entity's activities towards strategic goals, while monitoring provides a system to reinforce and/or correct deviations through feedback mechanisms (Kruis, Speklé & Widener, 2016; Hou & Neely, 2018). Various countries, including the United States of America, China, Brazil and those in the Organisation for Economic Co-operation and Development (OCED), precisely New Zealand, Australia, the United Kingdom, have used the budget and OBLM for monitoring and controlling municipal expenditure and service delivery programme towards the achievement of strategic goals (Hood, 1995; Olson et al., 1998; Puttaswamy, 2014 & Aaskoven, 2018).

South African municipalities operated in chartered areas, but maladministration increased despite the abundance of research and empirical literature (AGSA, 2019). AGSA found that 250 (92%) municipalities were in bad financial health. About 26% had a poor financial position, and 106 municipalities had extensive liabilities. Audit reports (2018/19) highlighted poor budgetary control and indiscipline, which led to insolvency and ever-increasing unauthorised, irregular, fruitless and wasteful expenditure (Auditor general, 2016; 2017; 2018). About 90% of municipalities were implicated in corrupt activities and unfair procurement. Inadequate application of management accounting practices (MAPS) and project management plagued municipalities continued despite consultants' efforts (AGSA, 2018).



South Africa has 278 municipalities, comprising eight metropolitans, 44 district municipalities, and 226 local municipalities using budget and OBLM performance measurement tools (Limpopo Provincial Treasury, 2018).

Municipalities have two functionary organs: the political and administrative arms. Naidoo (2018) describes both arms as interdependent and intertwining. This study will only focus on the administrative arm. The study will look at one of the five district municipalities of Limpopo province, i.e., Capricorn District Municipality (CDM). CDM has four local municipalities: Lepelle-Nkumpi, Polokwane, Blouberg and Molemole after the disestablishment of the fifth municipality called Aganang (Capricorn district municipality, 2019).

The creditor relationship management in Limpopo province resulted in debts accruing to Eskom and water services providers valued at R1 and R2 billion, respectively. Irregular expenditure increased from R677 million to R1,5 billion (AGSA, 2019). Eight municipalities in Limpopo were non-compliant with key legislation leading to a R1,2 billion loss in the VBS Mutual Bank scandal (Syuroh, 2020). Similar patterns of maladministration existed in one of Limpopo's district municipalities (State of Local Government Finances and Financial Management Affairs (SoLGA), 2019). CDM's local municipality, Lepelle-Nkumpi was implicated in the VBS scandal, losing millions (CDM, 2019).

In terms of socio-economic development, CDM possessed high levels of inequalities and low standards of living. According to the South African multidimensional poverty index (SAMPI), CDM poverty levels are above the national level. The State of local government finances and financial management report (SoLGF) (2014) described the financial distress in CDM as consisting of poor cash, debt, and capital management. The National treasury (2017) confirmed this reporting on CDM's financial distress in 2014 and 2016.

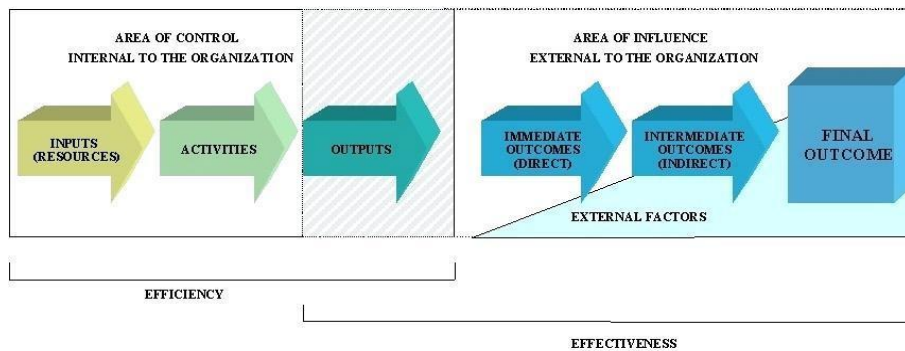
## PERFORMANCE EVALUATION TOOLS

The municipality uses various performance evaluation tools in this study specifically focusing on the outcomes-based logic model (OBLM) and budget.

Municipality budgets are presented in standardised formats to reflect the operational expenditure (OPEX), capital expenditure (CAPEX), the cash flow movements, financial position, and performance (Limpopo Provincial Treasury, 2018). Budgeted revenue and expenditure streams are drafted and revised upon approval by the mayor, councillors, Provincial and National Treasury before implementation (Capricorn district municipality, 2019). The line items in the budget reflected the triple bottom line concerns of the municipality (social, economic, and environmental allocations). Triple bottom line outcomes were reflected on the CDM website, independent government departments and data vendors. (Municipality, Centre, Boulevard, Cape & Africa, 2018).

The outcomes-based logic model (OBLM), a service delivery tool, was adopted in response to an electoral mandate to measure service delivery outcomes (Kamara, 2020). The OBLM is a tool to reverse the distributive inequalities created by apartheid and promote capital developments through service delivery programmes (CDM, 2019). An example of such a programme is the Municipal Infrastructure Grant (MIG) (AGSA (2019). National government objectives determined the nature of OBLM applications. In practice, the tool failed to yield desired outcomes within given timeframes which led the government then to increase the decentralisation of service delivery by rolling out the District Development Model (Maponya, 2016; Cooperative Governance and Traditional Affairs, 2018). The functionality of the OBLM is well summarised in Figure 1 below.

**Figure 1: Summary of OBLM**



Source: Holder (2015)

Figure 1 displays a series of internal processes, from the moment inputs (e.g., are invested into the programme until the outcomes. Examples of inputs include Resources, time, labour, and technology invested while outcomes are the economic development, living standards, and ecological preservation are achieved (Serowoky, George & Yarandi, 2015). Monitoring and controlling continue throughout the execution of activities. These internal activities are the strategies or events done by an entity, and these include process reviews, training, and campaigns done for value addition and processing inputs into outputs (Hood, 2015; Serowoky et al., 2015; Liang et al., 2018). The outputs would be, for instance, the number of training and campaigns carried out.

The overall success in implementation is gauged by the outcomes which are divided into short-term and long-term outcomes. Outcomes are visible in the community and are sometimes called “impact” (Hou and Neely, 2018). Short term outcomes include changes in skills, beliefs, and attitudes, while medium-term outcomes are changes noted in behaviour, policies, practices, and actions. Long-term outcomes refer to changes in the socio-economic and environment of a municipality, e.g., changes in mortality, improved living standards and preservation of natural resources (Liang et al., 2018). The assumption, therefore, is a project/programme devoid of long-term outcomes is a failed one.

The OBLM is a favourable performance measurement tool since internal investments, efficiency and outcomes can be effectively measured (P. Model and L. Model, 2018). Certain parameters, specifically the New Public Management (NPM) and legislation are critical to municipal applications of the OBLM (Baum, Delany-Crowe, MacDougall, Van Eyk, Lawless, Williams & Marmot, 2019). Both NPM and legislation affect the inputs, processes and activities applied to the OBLM (Baum et al., 2019).

## **NPM MODEL AND LEGISLATIVE INFLUENCE**

The NPM model, a transition from the bureaucratic Traditional Public Management (TPM) model, is gradually applied to all the 278 municipalities within South Africa (Naidoo, 2018; Rubric, 2017, Baun et al., 2019). The NPM is moderately new, and it imparts elements of fiscal decentralisation and outcomes-based management qualities rather than output management in municipal administration (Naidoo, 2018). Belle (2015) describes NPM as a framework that advocates for transparency, accountability, professionalism, performance measures, and agency problem regulation. The agency problem (self-seeking municipal managers) is countered with performance-related-pay schemes and disciplinary action. Ahyaruddin, Muhammad, Akbar and Rusdi (2016) credit NPM for budgetary discipline and the increased managerial autonomy, which led to public sector efficiency and effectiveness (Amusa & Mabugu, 2016).

Other scholars highlight NPM's positive impact on sustainability and strategic goal achievement which is visible in OECD countries like New Zealand, Australia, and Denmark (Baum et al., 2019; Aaskoven, 2018).

Legislation retained elements of TPM but embraced NPM as well (Naidoo, 2018). The Public Finance Municipal Act no 1 of 1999 (PFMA), for example, retained the bureaucratic elements of mayoral and councillor and National Treasury oversight (Naidoo, 2019). The Municipal Finance Management Act (MFMA) (2003) also governed budgetary allocation and service delivery. The municipal manager could not spend based on innovative spurs or personal judgment but focused on compliance with constitutional obligations and national objectives. The conditional grants system also regulated expenditure patterns. Payments outside the prescriptions of the law were gravely regarded as 'unauthorised expenditure' (MFMA circular 68).

It is important to particularly point out that the MFMA circular 19 of 2003 influenced the rigorous budget cycle management while MFMA section 18 advocated for diligent control over budgetary streams and budgetary discipline. Moreover, from 2019 onwards, Section P70.01 to P70.05 of MFMA stipulated the minimum competency levels for municipal managers, which fostered professionalism. Hou and Neely (2018) stated professionalism as a requirement for adequate controlling and monitoring activities. The PFMA's Section 27(3) referred to best practices in internal control and financial management principles, while Section 225 of the PFMA promoted transparency, accountability, and the standardisation of the Generally Recognised Accounting Practices (GRAP).

## **1.2 PROBLEM STATEMENT**

The South African municipal budget is aimed at attaining fair and equitable redistribution of social-economic and environmental welfare (Hou & Neely, 2018). However, this was not met due to budget indiscipline and poor project management which resulted in poor service delivery.

Municipalities became associated with poor working capital management and the implementation of internal controls (AGSA, 2018). As a result, South Africa had 112 insolvent municipalities. Municipal irregular, fruitless and wasteful expenditures increased from 50% to 75% from 2016 to 2017 (South African Local Government Association (SALGA), 2019). In 2018, poor debtor management led to debtor balances valued at R72.4 billion (AGSA, 2019).

Poor infrastructure development and maintenance of projects saw Limpopo province losing R341 million in water revenue (National Treasury, 2020). Weak internal control and monitoring led to incomplete service delivery projects (AGSA, 2018) only 33 out of the 257 (13%) municipalities in South Africa were functional, while the rest were incapable of reaching service delivery outcomes (AGSA, 2018; Naidoo, & Ramphal, 2018; AGSA, 2018). The World Bank Group (2018) cited South Africa as a country ridden with high inequalities and low intergenerational mobility.

In addition to budgetary and OBLM failures, the Auditor General highlighted poor management accounting practices and reporting systems.

AGSA identified budget indiscipline and poor delivery linking them to key governance laws (MFMA and PFMA) (AGSA, 2017). Management accounting practices (MAPs) and reporting allegedly decreased in quality due to poor recruitment policies (AGSA, 2018). Limpopo's municipalities lacked expertise which consequently led to qualified opinions. These opinions increased to 61%, with non-compliance to key legislation (PFMA and MFMA) being rated at 87% AGSA (2017).

Tyler (2017) propagated the importance of expertise in management accounting practices for quality disclosure and reporting. Authors del Rocío Moreno-Enguix, Gras-Gil, and Henández-Fernández (2019) captured positive relationships between management accounting practices and improved performance in local governments.

At the district level, CDM failed to improve service delivery which led to violent protests as citizens failed to receive their civil rights, i.e., the right to education, housing, employment, sanitation, and a healthy environment (Municipal IQ, 2016). Backlogs in service delivery accompanied by declining economic development increased inequalities, unemployment and decreased living standards in the district (National treasury, 2016; Municipal IQ, 2016; Maponya, 2016; Ramathwala, 2019; Matlala, 2019).

Over five years, CDM's environmental profile showed negative results from climate change and environmental degradation. This was despite investments made to ecological infrastructure (DEA, 2016). This failure to conserve biodiversity affected agronomy which contributed R1,66 billion to the economy. This became a concern since CDM's local municipalities, Molemole, Lepelle-Nkumpi, Blouberg and Polokwane, relied heavily on agriculture and agro-processing (CDM, 2020).

Swart and Swanepoel (2019) highlight that there are limited studies on PFMA and MFMA in municipal administration. Moreover, few studies explore the use of both the OBLM and budgetary metrics in municipal administration. The study resolves these issues encompassing NPM, management accounting practices and the triple bottom line outcomes arising from the administration. The study intends to establish the suitability of budgetary metrics and the OBLM to improve the controlling and monitoring in municipalities using CDM as a case study

### **1.3. RESEARCH AIM, OBJECTIVES AND QUESTIONS**

The following aims, objectives and questions are structured to address the issues highlighted in the problem statement.

#### **1.3.1 Research Aim**

This study aims to assess budgetary and OBLM application considering New Public Management, MSC theory and legislation considering the triple bottom line outcomes. The management accounting practices used in OBLM and budgetary metrics are assessed to gauge the expertise used in controlling and monitoring initiatives.

#### **1.3.2 Research Objectives**

Taking the above into consideration, the proposed study seeks to achieve the following objectives:

1. To investigate the influence of legislation (PFMA and MFMA) and the New Public Management theory on the budgetary metrics and OBLM applications in Capricorn District Municipality.
2. To determine the financial health situation in Capricorn District Municipality.
3. To assess the triple bottom line outcomes arising from the budgetary metrics and OBLM application in Capricorn District Municipality.
4. To assess the management accounting practices applied in the budgetary metrics and OBLM in Capricorn District Municipality.
5. To determine the suitability of the budgetary metrics and OBLM as tools for monitoring and controlling performance in Capricorn District Municipality.

### **1.3.3 Research Questions**

The research questions of this study are as follows:

1. What is the influence of legislation (PFMA and MFMA) and the New Public Management theory on the budgetary metrics and OBLM applications in Capricorn District Municipality?
2. What is the financial health situation in Capricorn District Municipality?
3. What are the triple bottom line outcomes arising from the budgetary metrics and OBLM application in Capricorn District Municipality?
4. What are the management accounting practices used in the application of the budgetary metrics and OBLM in Capricorn District Municipality?
5. How suitable are the budgetary metrics and OBLM for monitoring and controlling performance in Capricorn District Municipality?

### **1.4 DELINEATION AND LIMITATIONS**

- This study has several delineations and limitations. These include the following: Limpopo province has five district municipalities: Capricorn district municipality, Waterberg, Mopane, Vhembe, and Sekhukhune. The focus was paid to Capricorn District Municipality and its local municipalities.
- Only secondary data is used in this study.
- Three management and sustainability controls are used in this study, namely Simon's LOC (1995), Malmi and Brown's theory (2008) and Langfield-smith (1997). Only the formal controls are considered and available in the documentation.
- The PFMA and MFMA legislative elements discussed in this study related to budgetary metrics, the OBLM.
- The Chartered Global Management Accountant (CGMA) Technical Competency Framework (2019) is used. Only the technical skills are mentioned as they are classified into seven management accounting practices which are further subdivided into 32 areas.



- The study excludes the other four skills, namely business, digital, people and leadership skills.
- The political arm of the municipality is not addressed in this study. Only the administrative arm is analysed thereby restricting the study to the management accounting field and NPM theory.

## 1.5 DEFINITIONS OF TERMS AND CONCEPTS

The following definitions of key concepts used in this study are made to increase understandability:

**Application:** Yin (2014) defined it as the administration of the municipal budget and OBLM and budget.

**Control:** this refers to guiding, directing, and coordinating activities done by management to ensure the objectives and outcomes are met (Simon, 1995; Gond et al., 2012).

**Monitoring:** denotes the restricting, reviewing, recording, and reporting activities of management (Carlsson, 2017; Foster, 2017).

**Management accounting practices (MAPs):** these include the identification, measurement, analysis, interpretation, and reporting of information (CIMA, 2019). The 7 MAPs components assessed are derived from CGMA technical competency framework, which are further divided into 32 areas.

**Budgetary metrics:** this refers to the municipal budget elements considered of interest in this study, i.e., revenues streams, expenditure streams, and ratio analysis (Mpeta et al., 2018)

**The outcome-based Logic Model (OBLM):** otherwise called the 'logic model,' is a service performance measurement tool used to administer, control and monitor service delivery projects and programmes (Harris et al., 2018).

**Municipal financial health:** this is a probe into the municipal financial performance, financial position, cash management and budgetary implementation. This definition is from the State of Local Government Finances and Financial Management (SoLGF, 2020).

**Triple Bottom line:** this refers to the social, economic, and environmental outcomes resulting from budgetary and OBLM application. The outcomes are civil rights accruing to citizens: the right to education, shelter, employment, sanitation, and a healthy environment (SoLGF, 2020).

## **1.6 UNDERLYING ASSUMPTIONS**

Several conditions are assumed to be present when undertaking this study.

- The first assumption underpinning this study is the absence of turbulence in the external environment. In addition, the impact of inflation is discarded.
- The political and administration arms are perceived as divisible and separable. This allows for investigation into and management accounting practices, excluding political influence. The researcher also assumes that managers act objectively. Political budget cycles, coercion and biased policies motivated by the need for re-election are not discussed.
- The application of the budget and logic outcomes-based model is analysed regarding management and sustainability control systems theory (MSC), NPM and legislation (PFMA and MFMA).
- Public sector management operating at advanced and expert levels of proficiency using the CGMA framework are better able to monitor and control budgetary metrics and OBLM service delivery projects.
- Performance measurement tools, precisely the budget and OBLM, are suitable for monitoring and controlling performance when they possess all the controls mentioned in three theoretic frameworks: Simon's Lever of Control (LOC) (1994), Malmi and Brown's controls (1998) and Langfield-smith formal and informal controls theory (1997)

## **1.7 RESEARCH METHODOLOGY**

The theoretical framework, research question, aim, objective and paradigm guide the design of the research methodology (Yin, 2014).

According to Yin (2004; 2016), the research methodology denotes the researcher's procedures, tools, and processes to solve the research problems and objectives.

## **1.8. RESEARCH PARADIGM**

The research paradigm used in the study is the positivist approach. The positivist approach states that reality is derived from logic and facts that are quantifiable and statistically measurable (Yin, 2014). When data is qualitative Yin (2014) recommends the use of theory testing and empirical evidence to retain the positivism of a study (Yin, 2014). The application of the Yinian five-stage methodology presents a codified design and rigour that foster realism and eliminate constructed realities (Yin, 2014). This study ensures researcher independence, objectivity and eliminates the subjectivity of interpretation and judgment (Yin, 2014). This positivist research is objective, generalisable and repeatable (Braun & Dodge 2018).

### **1.8.1 Research Strategy**

The positivism paradigm is applied in a mixed-method case study research (MMCSR) according to the prescriptions from Yinian methodological processes (Yin, 2016). The MMCSR used in this study influences data collection, analysis, and interpretation. Both the qualitative and quantitative methods are used in a single case study of Capricorn District Municipality (CDM) (Yin, 2014). Qualitative research methods are strategies used to obtain theoretical or non-numerical. On the other hand, quantitative research utilises numerical data and statistics (Yin, 2013). The MMCSR uses both methods so that their cumulative strengths offset the individual weaknesses.

A deductive perspective is undertaken in this single case study embedded design. The embedded aspects of the case study allow for reporting, not only on the Capricorn district municipality holistically but on its four local municipalities as well.

The unit of analysis is the application of the budgetary metrics and OBLM to monitor and control performance in CDM.

## **Population**

A population is a collection of subjects targeted at addressing a specific scientific query (Creswell, 2014). There are 44 district municipalities in South Africa which are subdivided into a total of 226 local municipalities.

## **Sample Size**

Only one of the 44 district municipalities, namely the Capricorn district municipality, is referenced in this study. This district municipality and its four local municipalities (since the disestablishment of the fifth local municipality Aganang): Polokwane, Lepelle-Nkumpi, Blouberg and Molemole (CDM, 2019). The Capricorn district is selected as it is the capital district with the highest contribution to the Gross Domestic Product (GDP) in the rural province of Limpopo (CDM, 2019).

### **1.8.2 Sampling Strategy**

There are two broad classes of sampling: probability and non-probability sampling which are alternatively called random and non-random sampling, respectively. This MMCSR uses non-random sampling methods (Yin, 2014). Examples of non-random sampling strategies are purposive, convenience and quota sampling (Stewart, 2014). This study uses purposive sampling and purposive stratified samplings.

Purposive sampling is when elements of a population are selected to meet the needs of the researcher and resolve research questions, aim objectives and title (Yin, 2014). The Capricorn district municipality is deliberately selected as it is the business hub of Limpopo. Data collection from CDM is conveniently accessible and is structured to answer the research questions, objectives, and research paradigm.

Purposive Stratified sampling: The information is divided to reflect social, economic, and environmental outcomes relevant to this study.

### **1.8.3 Data Management Strategy**

#### **Nature of Data**

There are two types of data: primary and secondary data (Creswell, 2014). Primary data is collected through interviews and surveys, while secondary data originated from pre-existing third-party sources. The research makes use of secondary data collected from CDM, private data vendors, newspapers, and other government departments. Published documentation and articles from various websites are used (Yin, 2014).

The advantage of collecting secondary data from websites is that it is already cleaned, and audited, both internally and externally. Furthermore, the data is in electronic form, making it precise, reliable, and of high quality (CDM, 2019). In addition, the secondary data is stable, publicly accessible, and incorruptible during analysis (AG, 2018). It also enables the creation of a database and audit trail for verification by availing the exact names, details, and references of the researcher. All these advantages increase the external validity (generalisability), reliability and repeatability of this research (Yin, 2014).

#### **Data collection**

This study follows the processes prescribed by Yin (2014) for data collection and analysis. Document analysis is used, and it is derived from search engines such as google scholar and UNISA library provide the journals, conference papers and articles used in the study. Multiple sources of evidence include internally and externally generated information. Documents from government departments and websites, including but not limited to the National Treasury, South African Local Government Association (SALGA), DEFF, DEA, the Municipality Standing Committee on Public Accounts (SCOPA), and CoGTA, are used. This is not a new phenomenon as Swart, Swanepoel and Suruhal (2014) have also used documentation from various government departments in their qualitative analysis. External data from the Auditor General and newspapers ensure no bias.

Following these processes is data quality, which is increased through trustworthiness, validity, and reliability that comes with using contemporary, audited, and published data. The data is collected and stored in the self-made database to create a traceable audit trail of citable evidence (Yin, 2014). The data collection is structured to answer the research questions within the parameters of the defined problem statement and title (Harrison; Birks, Franklin & Mills, 2017; Elsayed et al., 2018).

### **Data analysis**

Data analysis procedures used are for both qualitative and quantitative data. Content analysis is applied to qualitative information and includes ordering, describing, and interpreting qualitative information to meet the research's aim, objectives, and title (Mirgorodskaya et al., 2017). This study uses theoretic replication, qualitative gap analysis and checklist approaches to analyse the qualitative information. Documented practices are assessed by the theory, namely NPM, PFMA, MFMA, MSC and CGMA in a process called theoretic replication. The data analysis processes used in this study are prescribed by Yin (2014), who asserts that they add quality to case studies by increasing rigour, reliability, validity, integrity, logic, and clarity. Stewart (2014), another scholar, endorses this notion.

The quantitative information in this study is analysed using descriptive statistics. Ratio analysis prescribed for the public sector (MFMA circular 71), relative frequency and quasi-statistical methods is applied to give numeric conclusions to the study. The results from the analysis thereof are presented using visualisation tools such as charts, linear graphs, and bar graphs. Furthermore, Maxwell and Chmiel (2014), alongside Yin (2016), inform that these methods increase readability, credibility, trustworthiness, and integrity. Precisely, Microsoft Excel and SSPS statistical packages were used. Lastly, the research synthesised all the findings in the five research objectives in unison in a Root Cause Analysis (RCA) (Smith, 2019).

## 1.9 SIGNIFICANCE OF THE STUDY

This study seeks to improve budgetary and OBLM applications for efficient and effective performance monitoring and control. The research is relevant to researchers, community members and municipal managers. According to several scholars, a study is made significant if it contributes to any of these five issues: generalisability, relevance, breadth, rigour, and novelty (Elsayed et al., 2018; Harrison et al., 2017; Yin, 2014; Mills, 2014).

**Generalisability:** this relates to the ability to generalisable methods and techniques beyond the population under study (Harrison et al., 2017). This study is classified under the positivist paradigm and therefore possesses generalisable components (Mills, 2014). The statistical techniques, including the Yinian methodology, empirical literature, and the use of policy documentation, e.g., PFMA and MFMA and CGMA, add analytical generalisability (Yin, 2014). Therefore, these findings can be applied to district, local, metropolitan municipalities and internationally.

**Relevance:** this attribute illustrates how the research impacts society and the economy (Harrison et al., 2017). The study empowers municipal stakeholders with techniques and information to analyse budget analysis and service delivery, participate in reforms, and enforce accountability mandated by the PFMA and MFMA. Gaps in municipal administration are exposed, making this study a tool for improving municipal operations.

**Breath:** This relates to the results being applicable beyond the original topic (Yin, 2014). The budget and OBLM discussed in this study can be used in programmes or projects usable in NGOs, educational and scientific studies, not only in municipalities. Moreover, the studies of policy evaluation and comparative analysis are used internationally, which can be adopted from this study. Yinian methodology also makes this study applicable, repeatable, and trustworthy for adaptation by different researchers (Yin, 2016).

**Rigour:** This qualification reflects the decisiveness of a study (Mills, 2014). While other studies are speculative, a quantitative positivist research paradigm that employs numerical data tends to be factual, increasing this study's rigour. The qualitative section of the study also possesses rigour by applying Yin's case study methodology (Harrison et al., 2017). The extensive use of empirical literature throughout this study makes it rigorous (Yin, 2016).

**Novelty:** relates to new and different methods applied to a study (Braun et al., 2018). The OBLM and budgetary metrics in municipality literature are explored in Pakistan (Hanif & Jabeen, 2016), referencing Sweden and America. It has, however, not been done in detail in a South African context or at the district level. Additionally, limited research on PFMA and MFMA has been done alongside NPM precisely regarding budgeting and service delivery. Unlike other studies on performance measures, this researcher proceeds to analyse how the municipality reports its activities. The quality of documentation and level of proficiency applied to it are determined. The outcomes from administering the budget and OBLM are also evaluated. This study is comprehensive since it analyses the performance measures, discusses the quality of reports of their administration and evaluates the outcomes derived from implementing the performance measures.

## **1.10 CHAPTER OVERVIEW**

This study takes the form of six detailed chapters, including this introductory chapter. Precisely, chapter 1 provides an overview of the problem under study, study objectives, and proposed methodology to achieve these objectives. Chapter 2 provides a theoretical framework guiding this study. Precisely, chapter 2 contains a detailed discussion of the Management and Sustainability Control Systems theory, the theory by Malmi and Brown (2008), and Simon's LOC. This chapter also provides an in-depth discussion of the relevant legislation (PFMA and MFMA) that affects Budget and OBLM application for control and monitoring. Chapter 3 focuses on reviewing the past empirical literature on the various issues arising from the research questions, empirical literature, and legislation.

In contrast, Chapter 4 discusses the research design, method, and data collection methods employed to answer the proposed research questions, aims and objectives.



Chapter 5 deals with the presentation and analysis of the data gathered. In this chapter, the results analysed were evaluated to evaluate results, determining patterns, relationships, and theoretical implications. The final Chapter 6 summarises the results obtained for each research question. This final chapter contains conclusions and recommendations regarding OBLM and budget applications for control and monitoring. The recommendations made in this chapter are based on the limitations encountered while conducting this study.

## CHAPTER TWO

### THEORETIC FOUNDATION

#### 2.0 INTRODUCTION

Chapter two addresses the theoretical foundations addressing the research objectives. The main theories discussed in this chapter are the New Public management theory (NPM), the Management and Sustainability Control systems theory (MSCs) and the legislative framework (PFMA and MFMA). These have influenced applying the logic model and budget in the Capricorn District. Their extent of influence is yet to be determined. The theoretical frameworks are determinant factors that affect the legitimacy, effectiveness, and efficiency of the budget and OBLM applications (Tan, 2020). Table 2.1 below summarises the chapter layout and delineates the scope description and its significance to the study.

**Table 2.1: Layout of Chapter 2**

Section	Scope of description	Significance to study
I	It discusses the New Public Management theory (NPM) and differentiates it from the preceding Traditional Public Management (TPM) theory	NPM is contrasted with TPM, and South Africa's transition towards NPM is highlighted. Attributes of NPM that influence administration is discussed.
II	Addresses legislation (MFMA and PFMA) governing the application of the performance measurement tools (budget and OBLM) in municipal administration	Discusses the elements of PFMA and MFMA applicable to administrative practices which are used to address research objective 1
II	Deals with basic definitions and MSC theory, MSC theory viz: <ul style="list-style-type: none"> <li>➤ Malmi and Brown's theory</li> <li>➤ Simons Lever of control (LOC)</li> <li>➤ Langfield-smith's Formal and informal controls theory</li> <li>➤ The Chartered Global Management Accounting Competency (CGMA) Framework (2019)</li> </ul>	The deployment of MSC theory in budgetary and OBLM administration is discussed. Effectiveness and efficiency in administration are expected when theory is correctly applied.

## **2.1 SECTION I: NEW PUBLIC MANAGEMENT THEORY**

### **Comparison of Traditional and New Public Management Theory**

The municipality is divided into two arms, the political and administrative arms. This study does not address the political arm since it is limited to the administration of management accounting practices. Naidoo (2019) elaborates on the New Public Management theory (NPM) that influences municipal administration. The NPM brought about efficiency, transparency, effectiveness, competitiveness, and accountability at the national level which the Traditional Public management (TPM) framework failed to do (Rubakula, 2014).

As far as Kajimbwa (2013) and Hood (1995) are concerned, NPM is the marriage of two divergent ideas. The first idea is new institutional economics, and the second is managerialism. New institutional economics combines the transaction fee concept that delivers market mechanisms into politics (Baum, Delany-Crowe, MacDougall, Van Eyk, Lawless, Williams & Marmot, 2019). Tan (2020) deliberates that under NPM, market mechanisms of 'high-demand and high supply' determined the municipality's choice of goods and services to be rendered. Under NPM's influence, service provision was consultative. Competitors also placed their bids for tenders, which increased the quality and pricing policies for the willing and capable buyers. Naidoo and Ramphal (2018) both recommended the NPM as a model most advantageous to the public sector.

According to Hood, managerialism, the second idea, required managing agents to eliminate the 'agency problem.' In this case, the agents are the municipal managers who seek to amplify their interest at the expense of the municipality and its stakeholders (Tan, 2020). This phenomenon is derived from the agency theory (Baum et al., 2019). Managerialism tried to mitigate this agency problem using performance-based incentive systems and bureaucracy.

TPM advocated for bureaucracy in administration, inflexibility, and top-down hierarchical communication (Casady, Eriksson, Levitt & Scott, 2020). TPM viewed the government as a parent, dictating the demand and supply functions in the market.

The government determines the type and price of goods and services. Minimal to low-level consultation of citizens was made (Naidoo, 2019). TPM was entirely rule-based and restrictive on creativity and innovation. Municipalities often offered poor and low-quality goods and services in this non-competitive environment. High unemployment rates, inflation, and service inefficiency plagued the public sector while remuneration remained unrelated to performance (Naidoo, 2019).

Administration under NPM differs from TPM in various areas (Alsharari, Dixon & Youssef, 2015). NPM delegated decision-making powers and authority to lower-level management and focused on outcomes-based management, which is the antithesis of TPM, which focuses on input and output management. Among the nuances introduced by NPM are desegregation of duties, elimination of bureaucracies and synergy replacing the silo-effect of TPM's departmentalism (Casady et., 2020). Alsharari et al. (2015) captured the growing need for NPM to address the inadequacies and limitations of the Traditional Public Management (TPM) theory as municipalities grew in complexity. Greater autonomy and delegation required managerial competency and compliance with financial management techniques. Cadre deployment in TPM was replaced (Alsharari et al., 2015).

TPM was arguably suitable for developing countries, while NPM seemed appropriate for developed countries (Hood, 1995; Schick, 1998). Developed countries are mostly classified as least economically developed (LEDC) and low to middle income (LMIC), as are new/young democracies (Tshombe and Dassah, 2017). Having had a history of colonialism, they possessed limited expertise in administration and required bureaucracy to ensure managers remained accountable to the government and constitution (Tshombe & Dassah, 2017; Schick, 1998; Kajimbwa, 2013 & Casady et al., 2020). The reversal of injustices and inequalities created by apartheid and colonialism had to be addressed by redistributing socio-economic benefits to the previously disadvantaged groups (Casady et al., 2020). This nullified the role of supply and demand mechanisms in service delivery which would sustain inequalities created by colonialism (Naidoo, 2019). The government intervention and indigent policies would foster social equity (Casady et al., 2020; Alsharari et al., 2015; Rubakula, 2014 & Puttaswamy, 2014).

Rubakula (2014), Naidoo (2019) and van Buuren et al. (2020) stated that NPM guidelines influenced municipal administration in terms of policy implementation, the focus and measurement criterion, quality oversight, government role, budgetary improvements, participation, privatisation, and organisational structure and governance. These influences are summarised in Table 2.2 below compares TPM and NPM attributes.

**Table 2.2: Comparison and Contrast of NPM And TPM Attributes**

ELEMENTS	TPM	NPM
<b>Focus and measurement criterion</b>	<ul style="list-style-type: none"> <li>•Compliance with legislation</li> <li>•Citizens and the community prioritised</li> <li>•Restoration of historical injustices</li> <li>•Conformity to procedures, rules and processes is regarded as positive</li> <li>•Inputs and outputs used to measure performance</li> <li>•It is mostly qualitative with a focus on socio-economic issues</li> </ul>	<ul style="list-style-type: none"> <li>•Improving services</li> <li>•Clients, suppliers, and micro-relationships</li> <li>•Cost-cutting, efficiency, and effectiveness</li> <li>•Hybrid performance indicators and outcomes-based management systems are applied to the budget and OBLM</li> <li>•The triple bottom line is applied to determine performance.</li> </ul>
<b>Quality oversight</b>	<ul style="list-style-type: none"> <li>•Bulk provision of service provision</li> <li>•Quality is given little consideration</li> <li>•Delays in delivery, inefficiency, wastage, task duplication</li> <li>•Government determines deliverables</li> </ul>	<ul style="list-style-type: none"> <li>•Legitimate service delivery,</li> <li>•reduce lead time in delivery</li> <li>•Efficiency, effectiveness, and competitive quality</li> <li>•Zero defect and re-engineering processes</li> <li>•The local government can determine deliverables</li> </ul>
<b>Government role</b>	<ul style="list-style-type: none"> <li>•Paternalistic and bureaucratic</li> <li>•Administrative and political arms are operated as a single unit</li> <li>•Financial management compromised for political ambition</li> </ul>	<ul style="list-style-type: none"> <li>•The political arm is separated from the administration</li> <li>•Political leadership is concerned with political goals and policies, while the administrative arm focuses on financial management.</li> <li>•NPM governs the administrative arm.</li> </ul>
<b>Budgetary improvements</b>	<ul style="list-style-type: none"> <li>•Stable and aligned to legislation</li> <li>•Incremental and line-item budgeting is commonplace</li> <li>•Huge budget deficits are permissible. Administrators focused on compliance with regulations. No scope for creativity effectiveness and efficiency</li> <li>•The government determines the distribution of resources</li> <li>•Budgetary processes measured inputs and outputs management</li> <li>•It is sometimes irrational if it is aligned with the political mandate for purposes of re-elected</li> <li>•Follows due processes stipulated in legislation</li> <li>•Political privilege over resources</li> </ul>	<ul style="list-style-type: none"> <li>•Closer to private-sector financial instruments</li> <li>•Efficiency cost-cutting and balancing budgets (reduction of deficits)</li> <li>•New budget conventions which include outcome-based management, accrual accounting and cash management</li> <li>•Aligned budgeting with service delivery programmes</li> <li>•Contract-price budgeting/tendering</li> <li>•Managers and stakeholders have more discretion to determine allocations</li> <li>•Disciplined and parsimony,</li> <li>•Logical alignment with financial management</li> <li>•Equitable</li> </ul>

<b>Participation by stakeholders</b>	<ul style="list-style-type: none"> <li>•Low or negligible or none</li> <li>•Government makes all decisions</li> <li>•Customers have little or no access to municipal financial statement</li> </ul>	<ul style="list-style-type: none"> <li>•A highly consultative process that includes citizens in budget setting</li> <li>•Stakeholders influence goods and services offered and hold management accountable</li> <li>•Financial statements are published on websites</li> </ul>
<b>Privatisation</b>	<ul style="list-style-type: none"> <li>•Nationalisation and state-owned enterprises (SOEs) offer services to stakeholders. The government outsources specialist jobs but engages in most service delivery.</li> </ul>	<ul style="list-style-type: none"> <li>•Increase in private sector practices</li> <li>•Competition for tenders, subcontracting and outsourcing</li> <li>•Increasing Public-private partnerships (PPP)</li> </ul>
<b>Organisational structure and governance</b>	<ul style="list-style-type: none"> <li>•Focus is on organised structure, policies, and process</li> <li>•Paternalistic and bureaucratic</li> <li>•Administrative and political arms are operated as a single unit</li> <li>•Financial management compromised for political ambition</li> <li>•Focus on hierarchical structure and departmentalism leading to the 'silo-effect'</li> <li>• It is a centralised, inward-looking, bureaucratic and autocratic</li> <li>•Bureaucratic and legalistic, requiring knowledge of rules and compliance</li> <li>•Recruiting cadres who act on the approval of political leaders leads to external politics influencing internal systems, evaluation, and budgetary allocations.</li> <li>•Accountability is more geared towards compliance with political affiliation, not management</li> <li>•Rowing the ship perspective</li> <li>•The state handles all tasks</li> <li>•Social equity, public policy and design are key strategies</li> </ul>	<ul style="list-style-type: none"> <li>•Focus on performance, decentralisation and inter-organisational cooperation, coordination, delegation and outward-looking</li> <li>•Political leadership is concerned with political goals and policies, while the administrative arm focuses on financial management.</li> <li>•NPM governs the operations of the administrative arm.</li> <li>•Participatory leadership styles allow, consultants, volunteers, lobbying organisations, and NGOs to make contributions.</li> <li>•Professional and competent management</li> <li>•Adoption of managerial practices used in the private sector</li> <li>•Entrepreneurial outlook, creativity, and increased autonomy</li> <li>•Private sector style and performance appraisal systems are introduced</li> <li>•Steering the ship perspective</li> <li>•Lean state</li> <li>•Privatisation and marketisation of operations</li> <li>•Career development</li> <li>•Entrepreneurialism</li> </ul>

Source: Researcher's construction

## **2.2 SECTION II: LEGISLATIONS INFLUENCING BUDGETARY AND OBLM APPLICATIONS**

### **The Constitution of South Africa 1994**

The South African constitution of 1994 is the supreme law in South Africa, and extracts affect municipalities' legal foundation and administration (The Presidency, 2007). Section 151 of the Constitution Systems Act advises on municipal administration, stakeholder participation and the equitable redistribution of services and civil rights.

The budgeting systems and outcomes-based logic model are the municipal tools used to achieve these constitutional goals with the aid of the Public Finance Management Act of 1999 (PFMA) and the Municipality Finance Management Act 56 of 2003 (MFMA).

### **2.2.1 MFMA Influence on Budgetary and OBLM Application**

The Constitution and NPM theory have continuously influenced MFMA leading to amendments being made over the years. MFMA has been instrumental in promulgating concepts of decentralisation at the district and local government levels. The MFMA, in essence, defined and segregated the roles and functions of mayors, councillors, and municipal managers. The MFMA posits that the manager decides financial and supply chain management without the executive mayor (MFMA regulation 36). Section 53 MFMA required audits in service delivery agreements to curb the agency problem i.e., politicians and municipal managers seeking self-interest, and overriding financial management principles.

The MFMA framework facilitates municipal oversight, accountability, and good governance (National Treasury, 2019). South Africa retained levels of bureaucracy, characteristic of TPM, to reduce autonomy and collusion. Managers reported to councillors, mayors, and the Provincial and National Treasury. Additionally, the managerial term of office was restricted to five years. Section 52-56 of the MFMA insisted on mayoral and National Treasury approval of budget adjustments, huge cash disbursements and loans before managers could implement it.

The MFMA propagates performance evaluation in municipal administration. NPM replaced incremental budgeting with outcomes-based budgeting (National Treasury, 2019). Section 1 MFMA and Section 53 (1) (c) (iii) and 53(b), required municipalities to use the Service Delivery Implementation Plan (SDBIP) to align budgetary and service delivery outcomes with the Integrated Development Plan (IDP) objectives. Section 71 increased municipal financial health by recommending financial ratios and budgetary metrics that evaluated financial performance, position, budget implementation and cash management. MFMA Circular 68 aided the regulation of unauthorised, irregular, fruitless and wasteful expenditure.

MFMA stimulated transparency and stakeholder participation management. Community participation and involvement in the budgeting process where required. The municipal performance had to be available in the public domain and open to public scrutiny (Section 75 of the MFMA). Audit findings were published for stakeholder probing. Stakeholder consultation, feedback and feed-forward forums were created at local, district and provincial levels.

MFMA advised recruitment strategies that sought to employ professionals. This reiterated NPM sentiments. The MFMA's Minimum Competency requirements of 2007 circular 60, regulations 15 and 18, guided recruitment. Competent managers were expected to provide quality reporting, documentation, and financial management as stated in Sections 121 and 127 of the MFMA. Section 83 promoted competency monitoring systems in the municipality. However, in practice, the auditor general found that municipalities had incompetent managers who failed to comply with accounting and reporting standards (AGSA, 2019). An exemption to regulations 15 and 18, section 117(1) (b), passed in 2017 by Pravin Gordhan, retained unqualified staff giving them 18 months to meet the competency levels. A subsequent increase in fraudulent qualifications by up to 640 public sector workers (Businessstech, 2015; Cassiem, 2021).

MFMA Section 17 developed document submission and disclosure policies. Section 121 informed the quality, procedure of preparation and submission of reports. The contents of the public sector budget and its supporting documents were progressively changed to improve the budgeting system, implementation, auditing, and reporting. Section 88 and 72 of MFMA enriched this system by introducing multi-year and mid-year performance assessments.

### **2.2.2 PFMA Influence on Budgetary and OBLM Applications**

The second legislative framework analysed in this study is the Public Finance Management Act 1 of 1999 (PFMA). The PFMA promoted economic reforms that responded to the growth in complexity and size of municipalities. NPM attributes were visible in these amendments.



The key objectives of the PFMA are to:

- Inform the modernisation of the financial management system
- Facilitate the timely provision of correct quality information disclosure
- Eliminate corruption and wastage of public resources
- Ensure efficiency and accountability by senior managers

PFMA herein is discussed, in light of these key objectives. The PFMA determined the choice of accounting practices, expenditure classification and standardisation. The Municipal Standard Chart of Accounts (mSCOA) was the vessel used to ensure the standardisation of financial management principles across all 257 municipalities (National Treasury, 2018). Standardisation ensured comparability and improvement of controlling, monitoring, reporting, governance, and transparency in municipal operations (National Treasury, 2018).

Chapter 5 and Section 215 of the PFMA recommended acceptable budget implementation to eliminate debt. The PFMA grew in importance as it advocated for the Generally Accepted Accounting Practice (GAAP) and the accrual basis policy. The Accounting Standards Board in PFMA Chapter 11 highlighted the accounting standards to be used in the municipalities. The framework on budgetary submissions and reporting guidelines was strengthened by the Reporting of Public Entity Act and Exchequer Acts.

The outcomes-based management approach and detailed classification of revenue and expenditure were introduced to budgeting. The PFMA, like MFMA, required multi-year projections of expenditure and sought to mitigate irregular, unauthorised, fruitless, and wasteful expenditures (PFMA Section 1 and 34).

PFMA sections 38 and 39 aided budgetary planning, control, and performance evaluation. Budgetary revisions and adjustments require the approval and consultations of the provincial and national assembly. Variances were published which eventually prompted debates on policies and priorities.

Political administration and policy debates sometimes push political agendas ahead of sound financial management motives (Belle, 2015). Section 39 of the PFMA focused on budgetary control and discipline to prevent overspending and under-collection of revenue. Internal and external audits were required to promote corporate governance, internal control, and risk management in budgeting processes.

Chapter 10, Section 100, and 216 of the PFMA enriched accountability and disciplinary measures that countered adverse managerial practices. Consequences for mismanagement included withdrawing funds, imposed sanctions, fines, imprisonment, and suspension of guilty parties. External stakeholders (citizens, professionals, lobbyists, engineers, specialists, analysts, and National Treasury) assisted in holding municipalities accountable. Private companies solved some gaps in financial management as part of their social responsibility (CDM, 2018).

The PFMA emphasised the need for the best value, quality, and efficient services. Section 217 promoted equitable service and resource distribution with fairness, and justice. Service delivery programmes influenced by community participation become tailor-made, effective, and efficient (Naidoo, 2019). These concerns affect the nature and type of budgetary allocations and service delivery provided in each municipality. They, in essence, become the underlying objectives behind municipal operations.

## **2.3 SECTION III: MANAGEMENT AND SUSTAINABILITY CONTROLS**

### **2.3.1 Definition of Concepts**

#### **Monitoring**

Monitoring consists of systematic and routine processes to improve performance results (Hanif & Jabeen, 2016). Information from implemented programmes and data is collected for forecasting and decision-making processes (Mleke & Dida, 2020). Hanif et al. (2016) elaborate on how monitoring assists input and output tracking. Ivanov, Klymenko and Savostianenko (2020) concur with Hanif et al. (2016) that monitoring is critical for steering decisions and organisational learning. Scholar Mleke et al. (2020) concede with Ivanov et al. (2020) in professing that monitoring clarified objectives and could not exist independently without evaluation.

The evaluation process includes reporting progress, variance analysis and recommending performance reforms (Ivanov et al., 2020). Evaluation involves systematic assessments to ensure efficiency and effectiveness. Monitoring and evaluation are synergistic concepts in nature and function (Mleke et al., 2020 & Ivanon et al., 2020).

## **Management**

The managers employ planning, leading, directing, organising, and controlling techniques stipulated by Henri Fayol (Hatchuel & Segrestin, 2019). It would encompass operations management, finance, organisational behaviour, human resource, and strategy management from a management accounting perspective.

## **Control**

Control is used to ensure that goals are achieved and coordinated within timeframes and performance standards (Hatchuel & Segrestin, 2019; Fischer, 1995; Uzuegbu & Nnadozie, 2015). Uzuegbu and Nnadozie (2015) cite Henry Fayol's (1961) definition of control which included ensuring that plans are achieved, corrective action is taken, periodic evaluation, error checking, managing weaknesses and deviation from original plans. It includes the use of corrective and preventative measures (Kruis, Speklé, & Widener, 2016; Hou & Neely, 2018).

## **Management Control**

Crutzen, Zvezdov and Schaltegger (2017) define management control as the power and authority vested in a position that allows the holder to use devices and systems to ensure that operations, behaviour, and decisions meet organisational objectives. Feedback and feedforward mechanisms are used to implement organisational rules, discipline and rewards, appraisal in line with the organisational structure, and employment contracts (Göstl, 2020). Aaskoven (2018) defines management control as an itinerary process of guiding an organisation according to internal and external changes. It comprises performance evaluation and strategic planning (Kruis et al., 2016; Hou & Neely, 2018; Aaskoven, 2018). Budgets, costing, variance analysis, performance and non-financial measures are found in management control.

## **System**

A system is a set of interacting components with sub-systems requiring management control. A system is characterised by inputs, processes, and outputs (CIMA, 2018).

## **Management Control Systems (MCS)**

MCS is a management tool that ensures pre-set objectives are achieved. Hou and Neely (2018) and Carlsson (2018) philosophies that these measurement systems control and monitor human behaviour, material flow and business units. With the aid of MCS, managers can document objectives, strategies, policies, and performance for decision-making purposes. MCSs traditionally aligned the organisational and behavioural structure with financial and economic goals (Gond et al., 2012). Otley (1999) emphasised its contribution to financial/economic performance, and over time, MCSs were deployed with social-based controls. The contribution of MCSs goes beyond increasing operational efficiency to behavioural management. Simon (1995; 2000) defined MCS as formal procedures and information-based routines used to alter/ reorient behaviour patterns in an entity to achieve both existing and new strategies. Authors van der Kolk, van Veen-Dirks and terBogt's (2020) also describe MCS as directing and guiding behavioural towards achieving goals and strategies. It incorporates employee cooperation, creativeness, and development for the benefit of an entity (Gond, Grubnic, Herzig, & Moon, 2012; Carlsson et al., 2017).

MCSs transcend operational efficiencies and are a strategic management tool. Pilonato (2020) cited Antony (1965) and Malmi & Brown (2008) in demonstrating that MCSs could be used at both the operational and strategic levels. Otley (1999) highlighted the use of MCSs in strategic management. CIMA (2018) expanded the definition to include tools that increase adaptability to retain a competitive advantage. Pilonato and Monfardini (2020) expanded the definition of MSC with the aid of Gond et al. (2012) to include non-financial and sustainability goals.

MCSs which included sustainability control systems (SCS), are referred to as Management and Sustainability controls (MSCs). Sustainability considers air, water quality, biodiversity management and climate change in business evaluation.

### 2.3.2 Theoretical Framework

Theoretic triangulation uses more than one theory in research to interpret a phenomenon (Yin, 2014). This study discusses four theories, Malmi, and Brown’s theory, and lastly, Simon’s LOC will be discussed, Langfield smith formal and informal control and lastly, the CGMA competency framework.

Malmi and Brown’s theory over time was adapted to include sustainability controls. Figure 2.1 below shows the original MCS theory without adaptation. It essentially showed how five controls are needed for organisational effectiveness.

**Figure 2.1: Malmi and Brown Theory**

• <b>Malmi and Brown (2008)</b>					
<b>Cultural Controls</b>					
Clans		Values		Symbols	
<b>Planning</b>		<b>Cybernetic Controls</b>			<b>Reward and Compensation</b>
Long Range Planning	Action Planning	Budgets	Performance Measurement Systems including Financial Measurement Systems, Non-Financial Measurement Systems and Hybrid Systems		
<b>Administrative Controls</b>					
Governance Structure		Organization Structure		Policies and Procedures	

Source: Malmi and Brown (2008)

Table 2.3 below summarises Malmi and Brown's theory as an MSC (MCS with SCS), which is important as the study will include non-financial and sustainability issues (social and environmental issues). The six controls discussed in the table are sustainability, planning, cultural, cybernetic, administrative controls, last of all, rewards and compensation controls.

**Table 2.3: Core Elements of Malmi and Brown (2008)**

CONTROLS	SUMMARY DESCRIPTION	MAIN REFERENCES
<b>Sustainability</b>	Identifies social and environmental responsibility. Sustainable development is managed with controls	Gond et al. (2012)
<b>Planning controls</b>	<ul style="list-style-type: none"> <li>•They identify, align goals and influence goal congruence</li> <li>•Formal controls</li> <li>•Defines expected performance indicators</li> <li>•Planning is divided into action and long-range planning. And directs and controls activities and behaviour</li> <li>•Provides standards of performance and achievement.</li> <li>•Supports Ex-ante decisions</li> </ul>	<ul style="list-style-type: none"> <li>•Kruis et al. (2016)</li> <li>•Gibassier &amp; Alcouffe, (2018)</li> <li>•Malmi &amp; Brown, (2008)</li> </ul>
<b>Cybernetic controls</b>	<ul style="list-style-type: none"> <li>•These are financial measures and non-financial, budgets and hybrids</li> <li>•Formal controls</li> <li>•They seek to ensure the desired outcomes are met</li> <li>•They are linked to behaviour control targets and decision support.</li> <li>•This makes cybernetic systems transcend the role of information systems.</li> <li>• These tools are all connected to accountability, planning, and monitoring controlling deviation from pre-set targets. Cybernetic controls are diagnostically or interactively</li> </ul>	<ul style="list-style-type: none"> <li>•Kruis et al. (2016)</li> <li>•Gibassier &amp; Alcouffe, (2018)</li> <li>•Mansour (2017)</li> <li>•Malmi &amp; Brown's (2008)</li> <li>•Carlsson et al. (2017)</li> </ul>
<b>Reward and compensation controls</b>	<ul style="list-style-type: none"> <li>•That investigates the rewards of employees and managers to motivate and regulate behaviour towards goals.</li> <li>•Formal controls</li> <li>• This incentivising system is based on the rewards perceived intrinsic and extrinsic nature.</li> <li>•Rewards are tied to the cybernetic controls they are referred to as performance-related pay systems.</li> <li>•Not all rewards are linked to cybernetics because of retaining employees and satisfaction and identifying training needs.</li> <li>•Poor performance results in discipline, the withdrawal of benefits, sanctions, firing and fines.</li> </ul>	<ul style="list-style-type: none"> <li>•Mansour (2017)</li> <li>•Langfield-Smith (1998)</li> <li>•Malmi &amp; Brown (2008)</li> </ul>
<b>Cultural controls</b>	<ul style="list-style-type: none"> <li>•These regulate the behaviour and decisions of employees so that they meet strategies and goals.</li> <li>•Cultural controls define the expectations, values, philosophy, and experience gained in an entity.</li> <li>•Some are informal while others are a formal code of conduct.</li> <li>• They are slow to change and are divided into value-based, symbol-based and clan controls.</li> </ul>	<ul style="list-style-type: none"> <li>•Malmi and Brown (2008)</li> </ul>
<b>Value-based controls</b>	<ul style="list-style-type: none"> <li>•Comply with the definition of belief systems.</li> <li>•Formally controls and reinforced systematically to give value to the vision and mission statement.</li> <li>•It is aligned with business strategy. These values are attained by the deliberate recruitment of employees with similar values, socialising and explicating these values.</li> </ul>	<ul style="list-style-type: none"> <li>•Gibassier and Alcouffe (2018)</li> <li>•Simon (1995)</li> </ul>

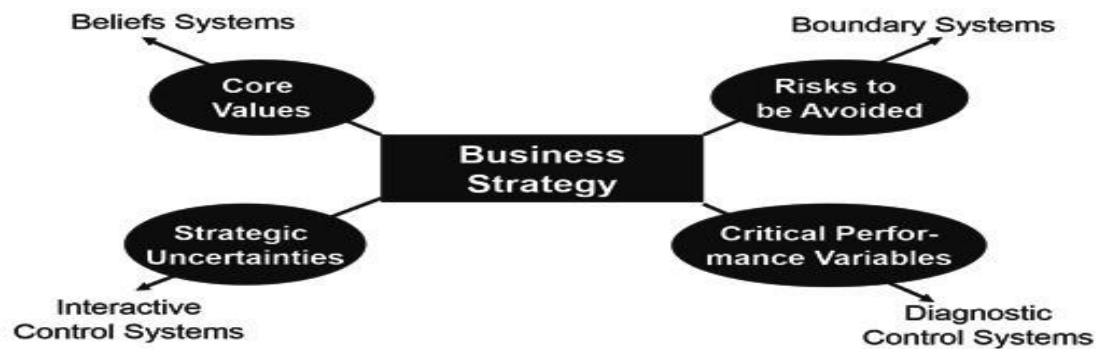
<b>Symbol-based control</b>	<ul style="list-style-type: none"> <li>• Defines these as visual expressions that create a culture and dress code, and office design are relevant examples.</li> <li>• Informal controls enable the development of a type of culture.</li> <li>• An open space office for example would promote interaction and sharing of ideas than a closed space design, uniforms, and logos.</li> </ul>	<ul style="list-style-type: none"> <li>• Malmi and Brown (2008)</li> <li>• Schein (1997)</li> </ul>
<b>Clan control based</b>	<ul style="list-style-type: none"> <li>• The definition is built on shared norms, beliefs, attitudes, and values</li> <li>• These are informal controls and deal with social mechanisms that drive behaviour, performance, and attitudes.</li> <li>• The notion of driving this theory is that an entity exists in sub-cultures attained through socialisation processes.</li> <li>• Largely informal and is birthed out of stories, ceremonies and rituals existing between employees.</li> </ul>	<ul style="list-style-type: none"> <li>• Ouchi (1979)</li> <li>• Malmi &amp; Brown (2008)</li> </ul>
<b>Administration controls</b>	<ul style="list-style-type: none"> <li>• They monitor and direct the interpersonal relationships within an organization.</li> <li>• The policies, procedures, and the general codes of conduct</li> <li>• Are formal control systems written, documented and easily measurable.</li> <li>• The three groups of administrative control systems that direct behaviour are the organisational structure, governance structure and lastly the policies and procedures.</li> </ul>	<ul style="list-style-type: none"> <li>• Langfield-smith (1998)</li> <li>• Carlsson (2017)</li> <li>• Gond et al., (2012)</li> <li>• Carlsson et al. (2017).</li> </ul>
<b>Governance structure</b>	<ul style="list-style-type: none"> <li>• This is a formal line of authority and accountability.</li> <li>• Top management and the Board of directors influence governance.</li> <li>• The governance structure is divisible into centralised and decentralised and variations along that continuum.</li> <li>• An attribute of administrative control is designed to impact the board's composition and structure through formal communication lines, formal authority, and accountability.</li> </ul>	<ul style="list-style-type: none"> <li>• Malmi and Brown, 2008)</li> <li>• Gibassier and Alcouffe (2018)</li> </ul>
<b>Organisational structure</b>	<ul style="list-style-type: none"> <li>• This is divisible into functional, divisional and matrix.</li> <li>• It is a formal control</li> <li>• It includes entity board structures and board composition, project teams and management teams.</li> <li>• Defines the lines of authority and accountability as well as power distribution.</li> </ul>	<ul style="list-style-type: none"> <li>• Malmi and Brown (2008)</li> </ul>
<b>Policies and procedure</b>	<ul style="list-style-type: none"> <li>• It has a bureaucratic approach that directs human behaviour</li> <li>• They are behavioural constraints and pre-action reviews that determine the future course of action</li> <li>• These bureaucratic measures exist as highlighted by the author's opinions and definitions of policies and procedures.</li> </ul>	<ul style="list-style-type: none"> <li>• Merchant and Van der Stede (2003)</li> <li>• Malmi &amp; Brown (2008)</li> <li>• Kruis et al. (2016)</li> <li>• Gibassier &amp; Alcouffe (2018)</li> </ul>

Source: Researcher's construction

## Simon's Levers of Control (LOC)

Simon refers to four levers' controls: the belief, boundary, interactive and diagnostic controls critical to organisational efficiency and effectiveness. The levers of control for the traditional Simons LOC theory are depicted in Figure 2.2 below:

**Figure 2.2: Simon's Levers of Control (LOC)**



Source: Simon (1995)

Table 2.4 below expands on this diagram inclusive of sustainability controls implemented to address the environmental and social responsibilities of the entity.

**Table 2.4: Core Elements of Simon's Levers of Control (1995)**

CONTROL	SUMMARY DESCRIPTION	MAIN REFERENCES
<b>Sustainability</b>	•'Green integration' into management controls	•Gond et al (2012)
<b>Belief system</b>	<ul style="list-style-type: none"> <li>•Communicates the core values meant to inspire employees.</li> <li>•Formal controls are documented such as the vision, mission, and statements of intent. Sustainability issues are infused into these</li> <li>•They influence the business strategy.</li> <li>•Belief and interactive controls are considered positive because they motivate employees to comply with the vision mission and core values</li> </ul>	•Gibassier et al. (2018)
<b>Boundaries</b>	<ul style="list-style-type: none"> <li>•Set limits, restrictive and considered negative</li> <li>•Formal controls</li> <li>•Codes of conduct/guidelines are attached</li> <li>•They limit the employee's opportunities for malpractice and fraudulent behaviour</li> <li>•Includes risk management and sustainability practices</li> <li>•Inflexible and there is no feedback or corrective action involved and is a single loop learning system</li> </ul>	<ul style="list-style-type: none"> <li>•Simon (1995)</li> <li>•Mansour (2017)</li> <li>•Gibassier et al. (2018)</li> </ul>



	<ul style="list-style-type: none"> <li>•Budgets, procedures, and policies</li> <li>•Is focused on error detection within the confines of established policies</li> </ul>	
<b>Diagnostic control systems</b>	<ul style="list-style-type: none"> <li>•Formal controls</li> <li>• They are negative or restrictive</li> <li>•Are feedback/feedforward mechanisms to promote organisational learning</li> <li>•Examples of these systems are the budgets, variances analysis performance valuation systems including sustainability</li> <li>•Ability to correct deviations or variances</li> <li>•(Holistic and dynamic).</li> <li>•Are positive when used as a basis for rewarding managers (when integrated with interactive controls take on the form of motivators), allowing feedback</li> </ul>	<ul style="list-style-type: none"> <li>•Carlsson et al. (2017)</li> <li>•Simon (1995)</li> <li>•Crutzen, Zvesdov and Schaltegger (2017)</li> <li>•Mansor (2017)</li> </ul>
<b>Interactive control</b>	<ul style="list-style-type: none"> <li>•Strategic levers to focus the attention of the management</li> <li>•Participation and input are required. This would lead to new strategies emerging, including sustainability</li> <li>•Stimulates organisational dialogue and learning).</li> <li>•Stand-alone interactive systems give rise to the personal engagement of managers in systems control.</li> <li>•Accentuates double-loop learning, which is a system that focuses on error detection, and questioning existing policies and goals.</li> <li>•Flexibility through modifying and developing strategic plans in response to the current environmental needs</li> <li>•Examples: project planning, profit planning, intelligence, and human development systems</li> <li>•Diagnostics allow for the comparison of actual performance against pre-set targets. employee participation</li> <li>•Belief and interactive controls as positive or enabling</li> </ul>	<ul style="list-style-type: none"> <li>•Simon (1990, 1991, 1995, 2000)</li> <li>•Carlsson et al. (2017)</li> <li>•Curis et al. (2015)</li> <li>•Mundy (2013)</li> <li>•Rodrigue et al. (2013)</li> <li>•Gond et al. (2012)</li> <li>•Tesser and Otley (2012)</li> </ul>

Source: Researcher's construction

### Langfield-Smith's Formal and Informal Controls

Langfield-Smith's (1997) contribution facilitates the division of MCSs into either formal or informal controls. The historical perspective of Langfield-Smith is applied to Malmi and Brown's (2008) and Simon's (1995) (LOC) theory. Chenhall and Moers (2015) describe MCS as a set of informal and formal controls.

Van der Kolk et al. (2020) prescribe informal controls as an ancillary measure used to instil values, culture, and belief systems. Informal controls are based on an unwritten entity's culture, based on verbally communication (Antony, 1989). The scope of this classification included cultural norms, clan controls and values systems (Crutzen et al., 2017) which Malmi and brown mention in their study.

According to Langfield-Smith (1997), formal controls consist of vision, mission, long-range plans, administrative controls, performance evaluation, official rules, procedures, reward systems and budgeting. Cultural controls are excluded from this classification.

### **SGPB Controls: Synthesis of Simon's LOC, Langfield-Smith, Malmi, and Brown's Theory**

These two major MSCs, Simons LOC and Malmi and Brown guide control system theories available in the field of Management accounting. LOC's diagnostic controls and Malmi and Brown's (2008) cybernetics have similar functionalities, including performance, financial, non-financial, sustainability, and hybridised measurement instruments. Both cybernetic controls and diagnostic controls involve the use of feedback, performance outcomes measures, monitoring and controlling mechanisms (Gibassier et al., 2018). Diagnostic and cybernetics reveal performance strengths, weaknesses and allow for feedback (Kruis et al., 2016; Gibassier et al., 2018). In this study, the cybernetic and diagnostic controls are used to determine municipal health (Kruis et al., 2016).

Beliefs and boundaries in Simons LOC are to Malmi and Browns administrative, governance controls and policies and procedures controls. These formal controls in Langfield-Smith's literature are written documented rules, routines, and standard and performance procedures.

In Malmi and Brown's case (2008), culture, values, symbols, and clan controls are similar to belief systems controls which are mostly informal. The similarity with traits of interactive controls and rewards and compensation controls are noted.

Table 2.5 below depicts the intersecting components of the three theories which are summarised as strategic planning controls, governance controls, performance management controls and behavioural controls (SGPB controls).

**Table 2.5: Researcher’s SGPB Controls**

<b>Researcher’s (SGPB) Model</b>	<b>Simon’s LOC (1995), Malmi &amp; Brown (2008) and Langfield-smith's theory (1998)</b>
<b>Strategic planning controls</b>	<p>Consists of Simons LOC’s Belief system: vision statement, strategic intent long-range plans including sustainable issues and Malmi and brown’s Planning control: long term plan. They are formal controls.</p> <ul style="list-style-type: none"> <li>•These formal controls determine the system and organisational design, the vision, mission, and long-term plans inclusive of environmental sustainability initiatives.</li> </ul>
<b>Governance controls</b>	<p>Integrates Malmi and Brown’s Administrative controls, organisational structure governance and policies, legislation (formal) and LOC’s Boundary controls: limitations, rules, policies, legislation, and Langfield-smith: all these are formal controls</p> <ul style="list-style-type: none"> <li>•Includes formal internal and external controls relating to laws, policies, auditing committees, risk management, and other bureaucracies that restrict and guide activities.</li> </ul>
<b>Performance management controls</b>	<p>Combination of LOC’s Diagnostic controls; Interactive control performance evaluation, appraisal and Malmi and Brown’s Cybernetic controls; Rewards and compensation controls. These can be classified under Langfield-smith formal controls.</p> <ul style="list-style-type: none"> <li>•These include performance evaluation and appraisal, career development, termination, feedback and forward processes, corrective action and motivational incentives.it consists of formal controls</li> </ul>
<b>Behavioural controls</b>	<p>It consists of LOC’s Belief systems: values, attitudes, culture (informal) and Malmi and Brown’s Clan, symbol, cultural controls (informal), and Langfield-smith consists of both formal and informal controls.</p> <ul style="list-style-type: none"> <li>•Beliefs and values, cultures, attitudes, and symbols impact human behaviour. The external environment also plays a part in this influence. It consists of formal and informal controls.</li> </ul>

Source: Researcher’s construction

### **Chartered Global Management Accounting Technical Competency Framework (2019)**

Management accounting practices (MAPs) have increased relevancy in municipal administration with the introduction of Municipal Regulation on Standard Charts of Accounts (mSCOA)-costing segment in July 2017. mSCOA has a costing segment that facilitates cost accounting, application, and methodologies (considering GRAP and MFMA) (National Treasury, 2020). The Chartered Global Management Accounting Technical Competency Framework (CGMA) (2019) applies to private and public sector evaluations. The CGMA is divided into technical, people, business, and leadership skills (CGMA, 2019). The technical skills provide the seven MAPs areas, namely: Financial accounting and reporting; Cost accounting and management; Business planning; Management reporting and analysis; Corporate finance and treasury management; Risk management and internal control; Accounting information systems and lastly, Tax strategy, planning, and compliance are assessed in this study.

## **2.4 SUMMARY OF CHAPTER**

This chapter discusses the main theories applied to the study. These theories include New Public Management (NPM), the management and sustainability controls (MSC), and the legislation (PFMA and MFMA) that influence budgetary metrics and OBLM applications. The MAPs used in CDM derived from the CGMA technical competency framework are also discussed. Chapter 3 will discuss the empirical evidence on domestic and international applications of the budgetary metrics, OBLM and NPM. The intention is to conduct a comparative analysis of applications that can enhance CDM administration.

## CHAPTER 3

### EMPIRICAL LITERATURE REVIEW

#### 3.0 INTRODUCTION

An empirical literature review involves direct or indirect observation of documented patterns and behaviour in a practical environment (Weber, Christiansen, Indefrey, & Hagoorta, 2019). It describes experiences that can be analysed quantitatively or qualitatively. This chapter makes practical observations of the influence of New Public Management (NPM) on budgetary metrics and OBLM applications in the three economic blocks (Knowlton & Philips, 2013; Khodachek, 2016). The economic blocks are the more economically developed countries (MEDC), the low to middle-income countries/emerging economies (LMIC), and the less economically developed countries (LEDC) (Andika, Nurasa, Karlina, Candradewini, 2018).

A comparative analysis of municipal budgetary and OBLM applications in 3 BRICS countries (Brazil, China, and South Africa) and the USA shows the universality of both tools for socio-economic and environmental (triple bottom line) development. The outcomes of these distributive efforts are determined using relevant indicators (Funck & Karlsson, 2019). Table 3.1 below summarises the layout of Chapter 3.

**Table 3.1: Layout of Chapter 3**

	Scope description: Empirical Analysis	Significance to study
3.1	AN INTERNATIONAL AND DOMESTIC PERSPECTIVE ON NPM ADOPTION ACROSS LMIC, LEDC, AND MEDC	Assists in answering research questions and the aim of the study. Observed application of NPM in different environments and the South African context
3.2	COMPARING AND CONTRASTING MUNICIPALITY BUDGETS ON AN INTERNATIONAL SCALE	Contrast application with the international environment to see areas of differences
3.3	THE OUTCOMES-BASED LOGIC MODEL Application of the OBLM in a global context vs application in CDM	Contrast CDM application with the international environment to see areas of differences

### 3.1 AN INTERNATIONAL AND DOMESTIC PERSPECTIVE ON NPM INFLUENCE

NPM influence is analysed across the same elements in the previous chapter, i.e., focus and measurement criterion, quality oversight, government role, budgetary improvements, participation, privatisation, and organisational structure and governance. This chapter does not analyse TPM as previously but only NPM influence across three economic blocks (MEDC, LMIC and LEDC). This is shown in Table 3.2 below:

**Table 3.2: A Comparison of NPM influence across three economic blocks**

Element	LEDC (largely TPM) •E.g., Kenya, Zimbabwe, Ghana, Bangladesh, Uganda, Chile, Thailand, Philippines	LMIC (middle ground) E.g., Malaysian, Singapore, South Africa, Brazil	MEDC (full NPM) E.g., USA, OECD, China
<p><b>Focus and measurement criterion:</b></p> <ul style="list-style-type: none"> <li>•Management accounting systems</li> <li>• Outcomes-based management</li> <li>•Entrepreneurship</li> <li>•Performance criterion: triple bottom line outcomes</li> </ul>	<ul style="list-style-type: none"> <li>•Legislation, policies, and bureaucracy are dominant through low involvement by citizens</li> <li>•Restoration of historical injustices above economic development</li> <li>•The government dictates deliverables.</li> <li>• Sustainability issues are not covered in depth</li> <li>•Limited technology</li> <li>•Input and Output management styles</li> <li>•Compliance and entrepreneurialism</li> <li>•focus is mostly on socio-economic development (Hamid et al., 2020; Silvestre et al.,2020. Olufemi et.al, 2010; Schick, 1998; Puttaswamy, 2014).</li> </ul>	<ul style="list-style-type: none"> <li>•Legislation and MSC are applied</li> <li>•Citizens are clients who are prioritised.</li> <li>•Restoration of historical injustices and economic development initiatives</li> <li>•Civil service is chosen over patronage</li> <li>•The government determines deliverables with input from stakeholders</li> <li>•Outcomes-based management is adopted</li> <li>•Each district municipality has a tailor-made strategy</li> <li>•Introduction of technology and sustainability (smart city)</li> <li>•Compliance and low levels of entrepreneurialism</li> <li>•focus on social, and economic with consideration of environmental outcomes (Steccolini, 2019; COGTA, 2020; Silvestre, Marques, Dollery &amp; Correia, 2020)</li> </ul>	<ul style="list-style-type: none"> <li>•Management and sustainability control (MSC)</li> <li>•Clients, suppliers, and micro-relationships</li> <li>•Cost-cutting, efficiency, and effectiveness</li> <li>•Market mechanisms of supply and demand influence service provision</li> <li>•Managers are autonomous Delivery that is quick, dependable, and timeous is required.</li> <li>•More concern with sustainability</li> <li>•Outcomes-based management is well applied</li> <li>•High levels of entrepreneurialism are noted</li> <li>•Wide-scale use of technology</li> <li>•environmental issues are highly prioritised as are economic and social outcomes (Hamid et al., 2020. (Zimmer &amp; Grabbe, 2020).</li> </ul>
<p><b>Quality oversight</b></p>	<ul style="list-style-type: none"> <li>•Bulk provision of low-quality services</li> <li>•Inefficiency, wastage</li> <li>•Duplication of tasks</li> </ul>	<ul style="list-style-type: none"> <li>•Some services are under government administration and price setting</li> </ul>	<ul style="list-style-type: none"> <li>•Legitimate high-quality, quick, Efficiency and effective service delivery</li> </ul>

<ul style="list-style-type: none"> <li>•Legitimacy in service delivery</li> <li>•Re-engineering of business processes</li> <li>•Contracting professionals</li> </ul>	<ul style="list-style-type: none"> <li>•High corruption</li> <li>•Bureaucracy</li> <li>•Cadre deployment and politics overtake financial management principles</li> <li>•External politics influence internal systems performance evaluation and budgetary allocations</li> <li>•Accountability is geared towards political affiliation (Funck &amp; Karlsson, 2020)</li> </ul>	<ul style="list-style-type: none"> <li>•Delays in delivery and low quality where the government retains control</li> <li>•Areas of a private-public partnership led to increased efficiency and effectiveness in service delivery</li> <li>•Cadre deployment is present through increased oversight from independent groups, e.g., NGOs</li> <li>•Accountability and performance appraisals exist (Yeboah-Assiamah 2019; Funck &amp; Karlsson, 2020)</li> </ul>	<ul style="list-style-type: none"> <li>•Competitive quality and zero-defect policy</li> <li>•Re-engineering processes and continuous improvement through entrepreneurialism, Creative and use of the private sector style</li> <li>•Performance appraisal systems</li> <li>•Professional and competent management (Alsharari, Dixon &amp; Youssef, 2015; Aaskoven, 2018; Baum et al. 2019; Migorodskaya, 2017)</li> </ul>
<p><b>Government role</b></p>	<ul style="list-style-type: none"> <li>•Paternalistic</li> <li>•The administrative and political arm is operated as a single unit under political dictates</li> <li>•Financial management compromised for political ambition (Funck &amp; Karlsson, 2020)</li> </ul>	<ul style="list-style-type: none"> <li>•Political attempts separation from administration but separation is not complete</li> <li>•Semi-decentralisation and increased delegation and deconcentrating (Funck &amp; Karlsson, 2020)</li> </ul>	<ul style="list-style-type: none"> <li>•The political arm is separated from the administration</li> <li>•Political leadership is concerned with political goals and policies.</li> <li>•NPM governs the administrative arm. (Yeboah-Assiamah, 2019; Funck &amp; Karlsson, 2020)</li> </ul>
<p><b>Budgetary improvement</b></p> <ul style="list-style-type: none"> <li>•Closer to private-sector financial instruments</li> <li>• Outcome-based to increase effectiveness and efficiency</li> <li>• Resource distribution and utilisation: Disciplined and parsimony</li> </ul> <p>Resource distribution and utilisation: Disciplined and parsimony</p>	<ul style="list-style-type: none"> <li>•Stable and aligned to legislation</li> <li>•Incremental budgeting</li> <li>•Huge budget deficits permissible</li> <li>Budgetary processes measured inputs and later outputs only</li> <li>•Administrators focused on compliance with regulations. No scope for creativity, effectiveness, and efficiency</li> <li>•The government determines resource allocation</li> <li>•Budgeting deficits are ever-increasing, and corruption</li> <li>•As mandated by the ruling party: political privilege over resources</li> </ul>	<ul style="list-style-type: none"> <li>•Budgets still do not balance</li> <li>•High expenditure patterns above the ceiling</li> <li>•Budget Auditing and capping</li> <li>•Performance budgeting</li> <li>•Accrual accounting</li> <li>•Increasing technology</li> <li>•Limited scope for creativity</li> <li>•Focus on compliance with legislation, constitution</li> <li>•Growing scope for creativity</li> <li>•Citizen’s participation in some areas, most are decided in parliament</li> <li>•Continuous upgrade of financial systems over time</li> <li>•Private-public partnership (PPE) introduced</li> <li>•Logical according to financial management</li> <li>•Political budget cycles still exist, and anti-corruption measures increase</li> </ul>	<ul style="list-style-type: none"> <li>•Closer to private-sector performance budgeting</li> <li>•balancing of budgets encouraged</li> <li>•Efficiency, cost-cutting, and balancing budgets (reduction of deficits)</li> <li>•Outcome-based management in budgeting and accrual accounting, cash management</li> <li>•Contract-price budgeting</li> <li>• Improved financial systems</li> <li>•Flexible though compliance with legislation is measured</li> <li>•Managers have more discretion to determine allocations</li> <li>•Citizens increased participate</li> <li>•Disciplined, parsimony,</li> <li>•Logical aligned with financial management though the affluent have the most benefits</li> </ul>

	<ul style="list-style-type: none"> <li>•Corruption and political budget cycles are rampant (Dassah, 2017. Steccolini, 2019)</li> </ul>	(Steccolini, 2019; Funck & Karlsson, 2019)	(Steccolini, 2019; Zimmer & Grabbe, 2020; Funck & Karlsson, 2019; Steccolini, 2019; Zimmer & Grabbe, 2020)
<b>Participation by public</b>	<ul style="list-style-type: none"> <li>•Low or negligible or none</li> <li>•The government makes all decisions</li> <li>•Customers have limited to no access to municipal financial statement</li> <li>•Some information displayed on websites (Silvestre, Marques, Dollery &amp; Correia, 2020)</li> </ul>	<ul style="list-style-type: none"> <li>•Ever-increasing participation</li> <li>•The government makes major decisions and delegates lesser decision</li> <li>•Websites with selected financial information</li> <li>•NGOs and private companies assist in holding municipalities accountable (Govender and Reddy 2019; Zimmer &amp; Grabbe, 2020)</li> </ul>	<ul style="list-style-type: none"> <li>•High involvement of the citizen in budget setting and service delivery</li> <li>•The community can hold management accountable</li> <li>•Publishing of financial statements (Alsharari et al., 2015; Aaskoven, 2018; Baum et al., 2019; Hamid, Haming, Semmaila &amp; Bijang, 2020)</li> </ul>
<b>Privatization Development strategies and procedures</b>	<ul style="list-style-type: none"> <li>•Nationalisation</li> <li>• Attempted to privatise are hindered by corruption and loss of employment (Kenya, Ghana, and Indonesia)</li> <li>•Social equity</li> <li>•Public policy and design</li> <li>•Procedural compliance and accountability are key (Silvestre et al., 2020; Hamid et al.,2020)</li> </ul>	<ul style="list-style-type: none"> <li>•Indigent policies and PPE</li> <li>•Basic services such as water and electricity were privatised but still under government administration</li> <li>•Social equity with groups pushing towards privatization</li> <li>•Other political factions push towards nationalisation and increased privatisation (Silvestre et al., 2020; Hamid et al., 2020; Zimmer &amp; Grabbe, 2020)</li> </ul>	<ul style="list-style-type: none"> <li>•Increase in private sector practices and reduced public sectorial practices</li> <li>•Competition for tenders</li> <li>• A high number of PPP</li> <li>•Privatization</li> <li>•Marketization</li> <li>•Quality assurance</li> <li>•Employability</li> </ul> <p>(Zimmer &amp; Grabbe, 2020)</p>
<b>Organizational structure and governance</b>	<ul style="list-style-type: none"> <li>•The focus is on organized structure, policies, and process</li> <li>•The focus is on the hierarchical structure</li> <li>•Centralisation of activities in an inward-looking organization</li> <li>•Bureaucracy and autocratic management (Hamid, Haming, Semmaila &amp; Bijang, 2020)</li> </ul>	<ul style="list-style-type: none"> <li>•Focus on policies and structure</li> <li>•Inclusion of some stakeholders</li> <li>•Political hierarchy still exists</li> <li>•Participatory management though limited (Singapore is way ahead since making giving autonomy to land, housing, public works, and inland revenue agencies) (Silvestre, Marques, Dollery &amp; Correia, 2020)</li> </ul>	<ul style="list-style-type: none"> <li>•Focus on performance, decentralisation, departmentalisation, inter-organizational cooperation, and coordination</li> <li>•Inclusion of varied stakeholders</li> <li>•Reduced political hierarchy</li> <li>•Outward looking organizations</li> <li>•Participatory management (Steccolini, 2019; Zimmer &amp; Grabbe, 2020)</li> </ul>

Source: Researcher's model



## **3.2 NPM INFLUENCE IN SOUTH AFRICAN MUNICIPAL ADMINISTRATION**

Different environmental factors led to the tailored adoption of New Public Management used in municipal administration (Hood, 1995; Dollery & Correia, 2020). Since NPM implementation is not uniform, an investigation into its influence in South Africa becomes necessary. This investigation is further narrowed down to the district level. Yeboah-Assiamah, Asamoah, and Adams (2019) examined NPM's influence on South African legislation (MFMA and PFMA) and municipal administrative reforms.

### **3.2.1 Political History and NPM**

The globalisation and colonial independence theories led South Africa's public management division into two phases, apartheid rule and post-independence (Yeboah-Assiamah et al., 2019). The apartheid rule was predominately under the influence of Traditional Public Management (TPM), racial discrimination, and inequitable distribution of resources (Naidoo, 2019). The apartheid-era led to the majority suffering due to large inequalities and low intergenerational mobility (World Bank, 2018). The post-independence era is largely influenced by NPM elements such as transparency, accountability, stakeholder participation and equitable redistribution of wealth in municipalities.

Naidoo (2019) postulates that imperialist countries that matured in self-governance experienced the disadvantage of continuing with the TPM theory. Growing municipalities incurred inefficiencies and complexities that NPM practices could solve. NPM sought to improve efficiencies by adopting private sector practices into public management (Weber, Christiansen, Indefrey & Hagoorta, 2019).

The former colonies and new democracies did not have experience in self-governance. This study classified these new democracies into two, those that maintained good relationships with former colonialists (e.g., Malaysia, Singapore, and South Africa) and those that engaged in the scorched earth policy (e.g., Zimbabwe, Uganda, and Mozambique) (Dassah, 2017). The countries that maintained good relationships with colonialists gained institutional knowledge on NPM and municipal administration. (Yeboah-Assiamah et al., 2019, Naidoo, 2018).

Countries engaged in scorched earth policies were left to explore self-governance (Silvestre, Marques, Dollery & Correia, 2020). Attempts to radically adopt NPM led to weak and collapsing governance because they had not mastered the basics of TPM theory (Hood, 1995; Govender et al., 2019; Dassah, 2017).

A colonial history led former colonies to engage in redistributive efforts for the majority of previously disadvantaged. The opportunity cost was economic development (Govender & Reddy, 2019; S & P global ratings, 2019). South Africa's indigent policies and price-fixing are a bid to avail civil rights to its citizens, i.e., housing, electrification, clean water, sanitation, health facilities etc. (Ataguba, 2020, Naidoo, 2019; CDM, 2018).

### **3.2.2 Privatisation and Progressive Decentralisation**

Govender et al. (2019) described the South African municipality administration as striving for privatisation and marketization. Failures in State-Owned Enterprises (SOE) such as South African Airways, Transnet, Eskom, and Denel etc. (Commission of state capture inquiry, 2019; Naidoo, 2019; Gilman et al., 2019; Wu, 2020) promoted the growth of public-private partnership (PPP). China, however, succeeded in running SOEs in what Lin, Lu, Zhang, and Zheng (2020) call Chinese Puzzles. Complete privatization in South Africa was not possible since the government sought to protect the interest of the previously disadvantaged majority. However, though expected to increase efficiency and reduce lead times, PPP was plagued with corruption and collusion in 90% of municipalities (Naidoo & Ramphal, 2018; AGSA, 2019).

Decentralisation increased through the District Development Model (DDM) (CoGTA, 2020). The DDM increased the decentralisation of decision making and service delivery to the district level (CoGTA, 2020). The aim was to foster economic development, reduce urbanisation and decrease response time to service delivery complaints. The model aimed to decrease unemployment and grow local businesses. The conditional grant system, upon which district municipalities were dependent, only availed funds to meet national government objectives (National Treasury, 2019). This limited the independence of district municipalities and warranted Naidoo's (2019) opinion that South Africa is a semi-decentralisation state.

NPM increased the autonomy of municipal managers. South Africa retained TPM elements as Treasuries (national and provincial), mayors and councillors (constituting the political arm) vetted decisions made by the municipal managers (administrative arm) (Naidoo, 2019; Prichard 2018). Molyneaux and Head (2019) discussed the risks of cadre deployment in LMIC and LEDCs (young democracies) as ruling parties to secure control. Securing votes took precedents over financial management principles. Populist ideas and grants were increased for elections. This phenomenon is called a political budget cycle (Carvalan, Cox, and Orsorio, 2018).

### **3.2.3 Performance Management Systems**

NPM required competent management due to their increased autonomy. An effective performance management system was required to curb the agency problem (self-seeking employees) (Naidoo, 2018). The Auditor-General (2018) reported that performance-based incentive systems in municipalities were dubious since budgetary indiscipline was met with increased remuneration. In 2016/2017, the irregular and wasteful expenditure increased by 50% (R16 billion) and in 2018 by 75% (R28.4 billion) (Auditor-general, 2018). Despite malperformance, the GoGTA Minister Dr Zweli Mkhize (2019) awarded municipal managers a 5,4% increase, R200 000 in bonuses and fringe benefits way above the presidential salary (CoGTA, 2019).

The World Bank (2018) and AGSA (2019) reported weak administrative competency in South African municipalities. Cadre deployment in municipalities led to poor internal control systems and corporate governance, which led to insolvency (Thornhill, 2008; SALGA, 2018; Naidoo, 2019; Auditor-General's report, 2019).

### **3.2.4 The PBB from A Domestic Perspective**

Post-independence South Africa adopted performance and outcome-based budgeting to improve the monitoring and controlling of municipal performance (Tran & Noguchi, 2020). Performance-based budget (PBB) and planning-programming budgeting (PPB) were influenced by NPM theory allowing outcomes-based management, stakeholder participation, bottom-up approach, strategic planning and systematic rationalisation, and performance management (Zhao & Ho, 2019).

The PBB's outcomes-based management initiatives are well displayed in South Africa. The budgetary allocations are linked with service delivery programme outcomes in the Service Delivery and Budget Implementation Plan (SDBIP) to assess successes and failures. This is a requirement of MFMA Act, 56 of 2003. MFMA Section 2 allowed stakeholder participation and bottom-up communication in a budget set. Luft and Shield's (2014) hypothesised that budgetary discipline increased proportionally to stakeholder participation.

Réka, Ştefan and Daniel (2014) define the municipal budget as a strategic planning and management tool to administer social justice. The South African constitution and the PFMA 1999 (Act No. 1 of 1999) (as amended by Act No. 29 of 1999) facilitated the community's equitable distribution of civil rights. The aim was to decrease income inequality and unemployment and increase economic development, education, health, and delivery of household services (IDP, 2020). The recruitment framework required managers' incentives to be tied to achieving these outcomes.

### **3.3 MUNICIPALITY BUDGETS ON AN INTERNATIONAL SCALE**

A well-built perspective of the municipal budgetary application in different locations, i.e., 3 BRICS members (China, Brazil, and SA) and the USA as control, are discussed. Brazil and South Africa are emerging economies in the LMIDCs, while China and the USA are in the MEDCs (Andhika et al., 2018; Samuelsson, Andersén, Ljungkvist & Jansson, 2016). An analysis of the municipal budget in different geographic contexts assists in bridging gaps and upgrading administration practices.

#### **Comparing and Contrasting International Municipal Budgeting Applications**

The municipal budget has an overarching value as a strategic planning and management tool in China, Brazil, the USA, and South Africa (Kota, 2020). This section makes budgetary comparisons on the following key areas: stakeholder participation, accounting information systems (AIS), independent fiscal institutions (IFI), budget cycles and legislatorial and audit oversight, budget revenue streams and political climates.

Stakeholder participation in budget processes was applied across the four countries: China, Brazil, the USA, and South Africa. Similar methods were used to engage the public. These included open calls, neighbourhood meetings, and annual conventions for laymen and professional stakeholders (Gilman & Wampler, 2019). Brazilian participation ratings were at 17%, the USA at 22%, South Africa at 24% and China at 6% (OBI, 2019). Social media and government websites made the information publicly accessible (Tran and Noguchi, 2020). Neighbourhood-level meetings increased community representation (Naidoo, 2019; Gilman & Wampler, 2019).

China's approach was unique as it employed the Beijing, Yanjing, and Shanghai models to encourage participation. Zhao and Ho (2019) describe how the government set up the agenda for community discussions in the Shanghai model. The Beijing model consisted of five communities and 60 delegates who went door to door to raise queries and cast votes, while the Yanjing model only involved higher-level officials, e.g., delegates, village leaders and government staff (Zhao et al., 2019). The OBI (2019) gave China a 0% rating in participation while Chinese scholars wrote about an existing stakeholder engagement process.

The PBB has increased efficiency with accounting information systems (AIS). South Africa, for instance, has used the Basic accounting software (BAS), Vulindlela Information systems and mSCOA operations systems to assist in its financial management (National Treasury, 2020). Brazil has an iterative management information system (MIS) and enterprise resource planning systems (ERP) that allows feedforward and feedback processes (Gilman & Wampler 2019; Khan, Roy Chowdhury, Meghani, Hashmani, Borghi & Liverani, 2020). The USA and China's e-budgeting remained highly advanced in e-budgeting initiatives, accrual systems and mid-term expenditure framework (MTEF) (Gilman & Wampler, 2019; Wu, 202; James, Beazley, Rosato & Penn, 2019).

Independent Fiscal Institutions (IFI) were set up to audit municipal operations and influence budget expenditure (OBI, 2019). In Brazil, the IFI is called 'the Conselho de Gestão Fiscal,' while in South Africa is called the Parliamentary Budget Office. The USA calls it the Congressional Budget Office. Chinese National People's Congress runs most programmes and does not have an IFI (Tran & Noguchi, 2020; OBI, 2019).

There are similarities in budget cycle processes from planning, preparation, review, approval, and adoption to execution (Busanelli de Aquino, Caperchione, Lopes Cardoso, & Steccolini, 2020; Ho, 2019; Chen, He & Liu, 2020). Expenditure classification into Capital and Operating expenditure (CAPEX and OPEX) are observed in all countries.

Chinese legislative oversight was done by the Ministry of Finance (MoF), while the Budgetary oversight was done by the National audit committee (Wu, 2020; Tran & Noguchi, 2020) while other countries prioritise parliamentary decisions and citizens' input (Dimitrijevska-Markoski & French, 2019). Legislators approve the budgets (OBI, 2019), while the legislation controls budgetary allocations. The OBI (2019) rated Brazil's governance, i.e., the budgetary and legislative oversight, at 83%. The USA's rating was 83%, while South Africa was ranked at 87% (OBI, 2019). This rating is inconsistent with the World Bank (2019) and S & P Global rating (2018), which cited South Africa as having weak public administration governance and downgraded it to junk status. China's legislative and audit oversight was rated 31%, yet it possesses the fastest-growing municipalities (Wu, 2020).

Budget revenue streams are sourced in different ways. While the USA and Brazil decentralise revenue collection allowing local municipalities to collect income taxes, South Africa does not. Brazilian municipalities were allowed to raise income locally using a system of clientelism, political enfranchisement and 'Imposto Sobre Service Tax' (ISS) (Aquino, Caperchione, Cardoso & Steccolini, 2020; Ho, 2019; Wu, 2020). China allowed local/district municipalities to set up Special economic zones (SEZ) that allowed investors to generate revenue, and this strategy is also noted in South Africa. South Africa remained centralised, and district municipalities depended on national government transfers rather than on collecting local taxes (Gilman & Wampler 2019; National treasury, 2020).

Differing political climates influenced budget priorities (Zhao & Ho, 2019; Woo, 2020). The USA practised slavery, and its budgets sought to compensate a minority while South Africa and Brazil sought to compensate the majority who suffered under colonialism. This affected budgetary allocations (Gilman et al., 2019).

The USA had a federal system where matured opposition parties debated policies and expenditures, which led to innovation and competitiveness.

New democracies were largely influenced by a dominant ruling party and its policies (Gilman et al., 2019; Silvestre et al., 2020; Naidoo, 2019). China's one-party state focused on national development (social modernisation) in budgetary applications (Wu, 2020; Chen, He and Liu, 2020).

South Africa monitors and evaluates municipal health using section 71 of the MFMA, cash flow ratios; analysing expenditure (MFMA circular 68), OPEX and CAPEX; revenue streams (funding); and the management accounting practices (MAPS) used in the application of the budgetary metrics and OBLM to determine municipal performance.

Financial ratios (MFMA Circular 71) also assess municipal performance. Aquino et al. (2019) postulate that ratios analyses would assist in controlling and monitoring municipal health and Local Economic Development (LED). Cash flow ratios posed as reliable indicators since they excluded non-cash flow items, unlike the acid test and current ratio (Boisjoly, Conine & McDonald, 2020). GRAP 2 of the PFMA required the use of the direct method for cash flows presentation (Deon van der Westhuizen 2018; Mazzarol & Reboud, 2020).

### **Expenditure patterns (MFMA circular 68)**

Fiscal discipline is determined by assessing how a municipality managed three categories of expenses listed in MFMA circular 68 (Kumar, 2020):

- I. Unauthorised expenditure: spending outside of municipal functions and budgeting
- II. Irregular expenditure: spending against laws, policies, and legislation.
- III. Fruitless and wasteful expenditure: avoidable spending that is 'in vain.'

## **OPEX and CAPEX Relationship Analysis**

Expenditure in municipalities is classified as either capital expenditure (CAPEX) or operational expenditure (OPEX). CAPEX is spent on service delivery programmes, non-current assets, and infrastructural development. Olofin (2020) speculates local economic and environmental development and household service delivery increase proportionally to CAPEX spending. Rahmawati and Intan (2020) elaborate that CAPEX increased the Gross Domestic Product (GDP), decreased the Gini ratio and unemployment. On the other hand, OPEX reflected the administrative/operational costs of running the municipality (Andriputra et al., 2015). OPEX, when managed, led to process improvements while CAPEX led to socio-economic and environmental development (Ramos et al., 2020; OECD, 2017).

## **Revenue Streams: CAPEX and OPEX funding**

Funding CAPEX and OPEX require strategic planning. Andriputra et al. (2015) stated that healthy municipalities could raise their funds (internally generated funds) to pay for OPEX and CAPEX. Private-public partnerships, special economic zones (SEZ) and collection of local taxes were strategies used to raise these funds besides waiting for national government transfers.

## **Management Accounting Practices (MAPs)**

De Salles et al. (2016), Van Eyk et al. (2017), Van Melle et al. (2019) and Donatella (2020) and are all in agreement that MAPs lead to high-quality reporting of budgetary allocations, which increases organisational effectiveness. CDM's MAPs were evaluated using the CGMA framework to determine the expertise applied to each of MAP's seven categories (CGMA framework, 2019).



### **3.4 THE OUTCOMES-BASED LOGIC MODEL**

#### **3.4.1 Causality of Programme Evaluation**

A programme is an instrument used to organise activities toward achieving an entity's objectives. These activities include budgetary and non-budgetary activities (Nadeem et al., 2019). Programme implementation is done by executing projects and special operations. Government municipal programmes are designed to meet the needs of the citizens. Programme evaluation is a necessary step that ensures effectiveness and success in administration. Systematic tests and reviews were employed throughout implementation, sometimes leading to strategic revision (Van Eyk, Harris, Baum, Delany-Crowe, Lawless, & Macdougall, 2017).

Good methodological practices lead to programmes attaining desired outcomes (Nadeem et al., 2019). Thukral (2019) concluded that a programme's effectiveness is evident when planned and desired outcomes tally. Thukral (2019) motivates the use of variance analysis and benchmarking techniques to determine programme effectiveness. This evaluation process also assists in defining whether the outcomes were directly attributable to the programme.

Kamara (2020) assessed the importance of controlling and monitoring activities in service delivery. Evaluation of Kamara (2020)'s opinion resulted in programme improvement, accountability, decision making, and established casual relationships. A cause-and-effect relationship among inputs, activities, outputs, and outcomes could be effectively managed. Technology would assist the evaluation process in line with risk management procedures (Tse and Warner, 2020; Van Eyk, 2017).

The OBLM assisted in clarifying the objectives of an entity using an iterative approach to development (McAndrew et al., 2020). The OBLM was modified in response to external and internal factors such as stakeholders' cultures, expertise, scope, organisational dynamics, and processes (Coole et al., 2020). Stakeholder participation increased satisfaction and the feasibility of the model (Thukral and Rana, 2019). Model et al. (2019) stress the need for continuous improvement and quality management. Tse et al. (2020) advise that the tool be used with the SWOT analysis. The UK explored such a strategy in its OBLM applications (Rahmawati & Intan, 2020; Coole et al., 2020).

### **3.4.2 Terminology and Characteristics of The Logic Model**

P. Model and L. Model (2019) philosophies that the logic model essentially displays the relationships between inputs, processes, outputs, and outcomes and can be depicted as a horizontal pipeline or a pyramid. The logic model has a variety of names in academic literature based on its functionality as a results-based social navigating tool. Thukral (2019) uses the term 'Fuzzy Logic Model' to apply the tool to health programmes. Alfonsin, McLeod, Loder and DiPietro (2019) note the various other names used for the tool, including log frame, outcomes-based logic model, causation chain, theoretic underpinning, conceptual map, Theory of Change mental map. Hudson (2019) assures readers that all these names refer to the same tool. Contrary to this assertion, Model et al. (2019) argue that differences arise based on the intended use.

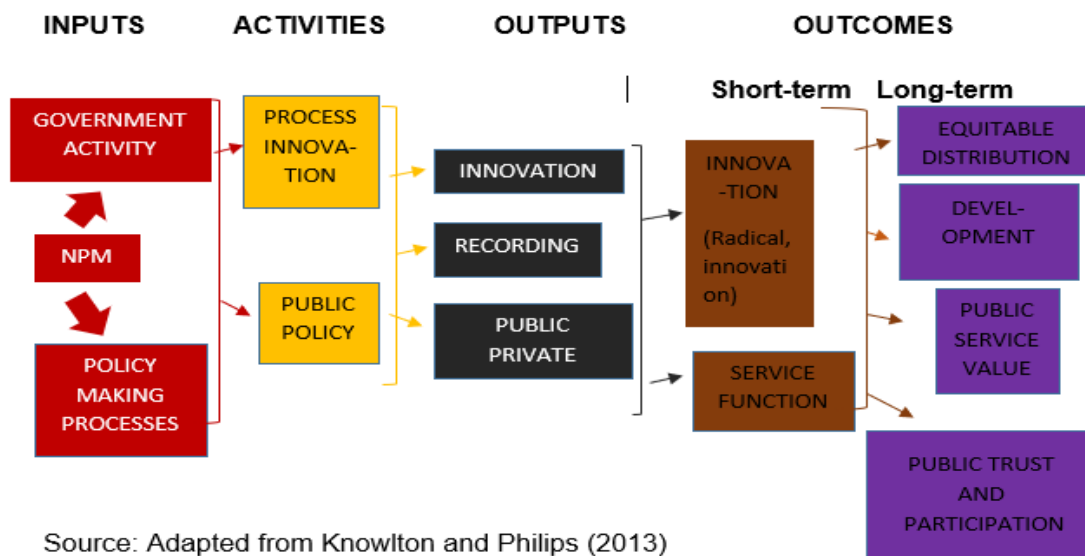
The term used in this study is the outcomes-based logic model (OBLM) developed by WK Kellogg Foundation, 2004. The OBLM is used to control and monitor service delivery outcomes and is hinged on the principles of outcomes-based management (Nadeem et al., 2019). It is a relevant, conventional, multi-disciplinary tool for controlling and monitoring socio-economic and environmental programmes (Garon & Paris, 2019; Nadeem et al., 2019).

### **3.4.3 The Outcomes-Based Logic Model and NPM**

Outcomes-based management also affected the service delivery monitoring and controlling (Govender and Reddy, 2019). NPM influenced the government's policies and processes, which led to innovative and private-public partnerships (PPP) in service delivery (Steccolini, 2019; Zimmer & Grabbe, 2020). The level of innovation was characteristically higher in MEDCs than in LEDCs. The short-term outcomes of NPM in OBLM applications were radical innovation in service delivery, while the long-term included equitable distribution, economic development and increased public participation and service value (Knowlton & Philips, 2013; Anttiroiko, Bailey, & Valkama, 2011).

Figure 3.1 below shows the OBLM applied in an NPM context.

**Figure 3.1: Outcome based model and NPM**



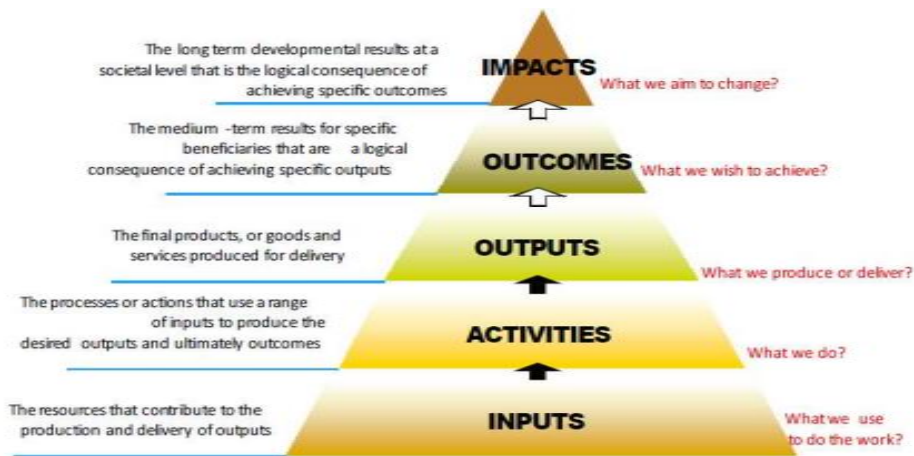
### 3.4.4 Triple Bottom Line Outcomes arising from OBLM Applications

The OBLM can be applied to control and monitor triple bottom line outcomes, i.e., the social, economic, and environmental (Lierler, 2019). Bowen, Walker and Holdsworth (2019) reckon correct application of the OBLM improved the quality of human life. A municipality is considered viable when it can provide efficient and effective services to its citizens (Limpopo Provincial treasury, 2019).

The Brazilian government used the OBLM to deliver socio-economic outcomes such as improved health, education, spatial and infrastructural developments (Alfonsin et al., 2019). The OECD countries provided housing during their Rural Development Programmes (RDPs) from 2014 to 2020 (Coole, Baker, McDaid & Drummond, 2020; Naidoo, 2018). Gomez-Conde, Lunkes and Rosa (2019) highlight its use in environmental sustainability projects. Taylor (2019) agrees similarly uses the tool for environmental waste disposal programmes, agricultural and land reform projects, resource conservation and rural pollution management. Furthermore, the World Health Organisation (WHO) used the model as an environmental risk analysis tool to manage natural disasters. Australia used this WHO model to implement its water conservation projects (Kolekar, Bardhan, Hazra & Chakrabarty, 2019).

CDM uses the OBLM for similar programmes, and the tool is presented in a pyramid structure in Figure 3.2 below:

**Figure 3.2: CDM Outcomes-Based Logic Model**



Source: National Treasury (2010)

CDM has used the tool to achieve the 14 outcomes of the National Development Plan (NDP) 2030 and its internal strategies. (National Treasury, 2019). The tool assists in providing education, shelter provision, employment, mortality rates, infrastructure development, and environmental conservation (Mouton, 2010; McAndrew & Kaskutas, 2020). CDM's and MPAC Annual Oversight report from 2014 to 2019 stated that the municipality had failed to complete projects and provide service delivery despite its unqualified audits over the five years (CDM, 2019).

### **Environmental Sustainability Outcomes**

The long-term impact of environmental degradation affects the socio-economic performance of a municipality (DEA, 2020). For instance, climate change leads to veld fires which destroy infrastructure and human health and also lead to the loss of life. A threatened ecosystem would decrease the quality and quantity of raw materials ruining agro-businesses and farming. Unemployment, poverty, droughts, and decreased income from tourism which weakens the economic development of a municipality, would result (DEA, 2020).

Economic development indicators measure economic outcomes arising from the budgetary metrics and OBLM.

The indicators used in this study are the Human development index, Multiple Dimensional Poverty Index (SAMPI), Gross domestic product, Gini coefficient and Household Service Delivery Statistics (McAndrew & Kaskutas, 2020). Local municipal activities cumulatively impact provincial and, lastly, national outcomes (Olofin, 2020). The success of the singular unit (local/ district/provincial municipality) when unified cumulatively leads to national development (Gamalerio, 2020). Using Olofin and Gamalerio's logic, it can be concluded that the correct application of the budget and OBLM in CDM will have a bearing on provincial and national outcomes.

### **Improved living standards using /Human Development Index**

The Human Development Index (HDI) measures the improvement in the quality of human life (McAndrew et al., 2020). Scherbov and Gietel-Basten (2020) point out that it captures human progress by aggregating socio-economic development and its impact on human beings (i.e., life expectancy, income distribution, and education level). Education improves the level of human development. A high HDI is pre-eminent in viable municipalities and reflects economic and social development (Adiputra et al., 2015; Lilly, 2015; Scherbov et al., 2020).

### **Multiple Dimensional Poverty Index (SAMPI)**

The South African Multiple Dimensional Poverty Index (SAMPI) headcount measures the multiple variants of deficiencies experienced by a population. The higher the figure, the higher the levels of poverty. South Africa has the highest poverty levels compared to Britain and China (World Bank, 2020). The SAMPI considers health, education and living standards in its calculations.

### **Gini-ratio**

The Gini coefficient ratio measures a country's income and wealth inequalities (Kollamparambil, 2020). The inequalities in wealth distribution highlight areas where the government can make redistributive efforts to benefit the marginalised (Kollamparambil, 2020).

## Gross Domestic Product

Gross Domestic Product (GDP) measures the economic value produced by each activity in a district, province, or country (Rahmawati & Intan, 2020). Rahmawati et al. (2020) elaborate that increasing infrastructural development and CAPEX directed towards mining, agriculture, tourism, textile, and other sectors increases GDP. Increasing employment in CDM is expected to increase consumption which raises GDP. Okun's law thus hypothesises that a relationship between Unemployment and GDP exists and must be managed (Rahmawati & Intan, 2020).

Table 3.3 below shows economic development indices in the 3 BRICS countries and the USA. The USA, Brazil, and China are yielded better socio-economic outcomes (education, poverty reduction, socio-economic sustainability, and health). South Africa has the lowest socio-economic stability and education years and the highest inequalities.

**Table 3.3: Economic Development Indexes in 2019**

SOCIO-ECONOMIC BENEFITS	BRAZIL	CHINA	SOUTH AFRICA	USA
HDI	0.761	0.758	0.705	0.920
GINI INDEX: Inequality and 1 being perfect inequality	0.449	0.467	0.625	0.485
GDP	1,893 billion	13,52 trillion	359 billion	22,32 trillion
SOCIO-ECONOMIC SUSTAINABILITY	64.1	n/a	51.2	96.4
EDUCATION: Years of schooling	15.4	13.9	13.7	16.3
MULTI-DIMENSIONAL POVERTY: Multidimensional poverty, head count %	3.8	3.9	6.3	n/a

Source: Adapted from World Bank (2018)

### **3.5 CHAPTER SUMMARY**

Chapter 3 discusses practical applications of the budgetary metrics and OBLM under the influence of NPM. The chapter highlights that a healthy and viable municipality should render civil rights (triple bottom line outcomes) to its community members. The Chapter focuses on the monitoring and evaluation of budgets. Economic development indices and household delivery statistics are recommended as tools to assess service delivery outcomes arising from municipal operations. Chapter 4 discusses the research methodology suitable for answering each research objective and solving the research problem highlighted in this study

## CHAPTER 4

### RESEARCH METHODOLOGY

#### 4.0. INTRODUCTION

This chapter details the research design, paradigm, data collection, and analysis used to answer the research objectives of this study. The methodological process presents a concise pathway guiding the formulation of research questions, data collection, and analysis procedures. This is aimed to resolve the research objectives and problems found in CDM. This methodological process is structured to address each of the following research objectives previously mentioned in Chapter 1.

The research objectives discussed are:

1. To investigate the influence of legislation (PFMA and MFMA) and the New Public Management theory on the budgetary metrics and OBLM applications in Capricorn District Municipality.
2. To determine CDM's financial health situation in Capricorn District Municipality.
3. To assess the triple bottom line outcomes arising from the budgetary metrics and OBLM application in Capricorn District Municipality.
4. To assess the management accounting practices applied in the budgetary metrics and OBLM in Capricorn District Municipality.
5. To determine the suitability of the budgetary metrics and OBLM as tools for monitoring and controlling performance in Capricorn District Municipality.

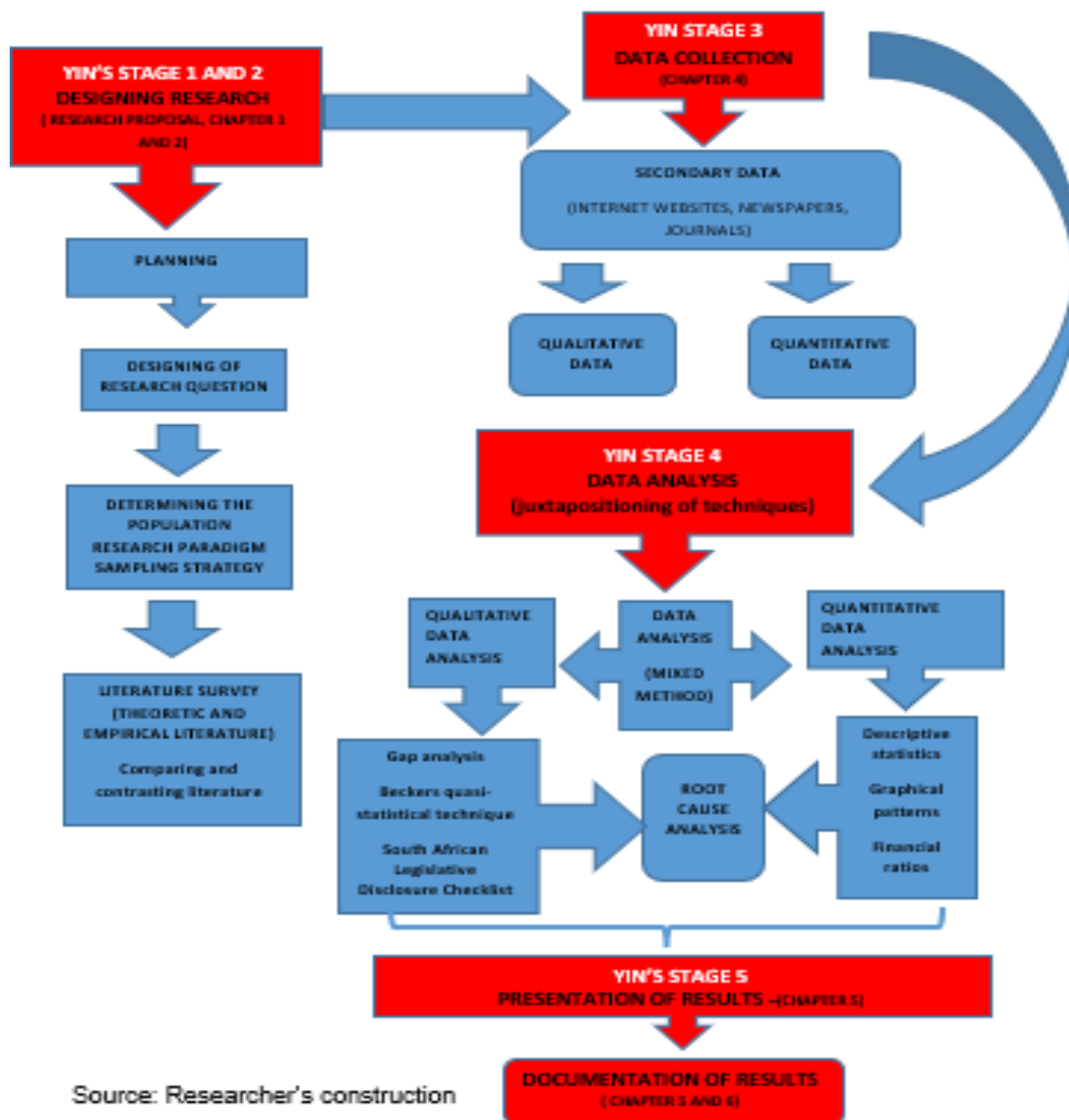
This study follows Yin's five stages to add consistency, cohesiveness, structure, and rigour to the methodological process (Yin,2014; Yazan,2014). The five stages prescribed by Yin (2014) are:

1. Research questions formulation
2. Research propositions formulation
3. Determining units of analysis
4. Data analysis linking the data to the research proposition: multiple sources of data evidence and analysis are used
5. Establishing criteria to interpret data



The application of the Yinian methodology is illustrated in Figure 4.1 below:

Figure 4.1 APPLICATION OF THE YINIAN METHODOLOGICAL PROCESS



#### 4.1 RESEARCH DESIGN CASE STUDY APPROACH

Merriam, Yin, and Stake prescribe the content, procedures, and a guiding roadmap for case study research (Yazan, 2015). Merriam and Stake's definitions of case studies are restricted to mere observations of events and processes, which differs from Yin's perspective (Yazan, 2015). Yinian definitions and mixed-methods single case study research design (MMSCR) are adopted in this study (Yin, 2004; 2014; 2016). Figure 4.1 is influenced by the Yinian perspective.

Table 4.1 below justifies using the Yinian case study approach and its suitability to address performance and programme evaluation in this study (Yin, 2014).

**Table 4.1 Justification for using Yin’s case study design and methodology**

TRAITS	YIN CASES STUDY DESIGN AND METHODOLOGY	WHY ITS SUITABLE FOR THIS STUDY
<b>Case study definition</b>	“Contemporary phenomenon within a real-life context” (Yin, 2014)	Empirical data 2014-2019 from CDM is used in this study
<b>Data gathering</b>	Qualitative and quantitative (mixed method) evidence is used	Mixed-method research with both qualitative and quantitative used in the study
<b>Epistemology</b>	Positivist leaning	Positivist
<b>Design</b>	Allows for single embedded	the study on Capricorn district municipality with a brief reference to its local municipalities
<b>Data gathering</b>	Documentation, archival records, newspapers	Documentation, archival records, and newspapers are used in this study
<b>Data analysis</b>	categorising, tabulation, categorization Literal and theoretic replication	(Categorising, tabulation, categorization) Literal and theoretic replication, gap analysis, contrasting and comparing literature
<b>Validity</b>	Construct (internal, external) reliability	Construct (internal, external) reliability

Source: Researcher’s construction

### **Deductive Research**

This study is a deductive approach that uses pre-existing theory to analyse mixed (qualitative and quantitative) data (Yin, 2016). Specifically, legislative framework, management sustainability and control theory, New Public Management, and the Chartered Global Management Accounting (CGMA) technical competency framework form a basis from which propositions are made in this study. Empirical evidence and descriptive statistics are used to confirm and or refute these existing theories.

## 4.2 RESEARCH METHODS

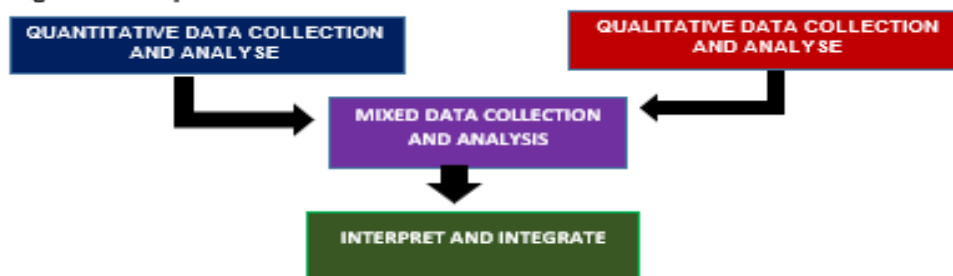
Research is classifiable as quantitative, qualitative, or mixed-method design (Mills, 2014). Qualitative research methods are strategies used to collect and analyse non-quantitative or non-numerical data (Harrison, 2017). The qualitative method is more useful for testing concepts and experiences. It is an abductive evolving, emergent, and flexible design (Yin, 2014). On the other hand, quantitative research involves numerical data, statistics, hypothesis testing, and theory testing (Yin, 2014).

The researcher uses the mixed method, which is a combination of qualitative and quantitative methods. Descriptive statistics, quasi-statistical methods, and content analysis are included herein (Mays & Pope, 2020). Results from the mixed methods are corroborated and increase generalisability, reliability, and credibility. The bias of using a single method is eliminated (Yin, 2016). This study is a qualitative-dominated mixed-method case study.

## 4.3 SEQUENTIAL TRANSFORMATION

The researcher uses sequential transformation to organise and present information by collecting and analysing qualitative data separately from the quantitative data and then interpreting results in unison (Mays & Pope, 2020). Sequential triangulation in this study involves the use of mixed methods and various data analyses to corroborate and cross-validate the findings (Creswell, 2014; Smith 2019). Mixed data results and findings from all five objectives are interpreted in unison with the root cause analysis (RCA). The format of the sequential transformation processes used in this study is depicted in Figure 4.2 below:

Figure 4.2 Sequential transformative



Source: Researcher's construction

## **4.4 RESEARCH PARADIGM**

### **Positivism In Mixed-Method Case Study Research (MMCSR)**

Roth and Mehta (2020) recommended a combination of interpretivism, constructivist, and positivist paradigms for MMCSRs. Lee (1991) discussed positivist-interpretivism as appropriate for MMCSRs, but Yin (2014) advocates for a purely positivist outlook. Yin's perspective and methodological processes are used in this study, making it purely positivist instead of positivist-interpretivism (Yin, 2014).

Yin's five stages used in this research eliminate subjectivity and personal interpretation in the data collection, analysis, and interpretation. Subjective judgments and constructed realities are replaced with logic, quantifiable facts, and theory testing (Yin, 2014). Theory testing and quasi-statistics applied to qualitative information (theoretic replication and pattern matching) increase objectivity. Descriptive statistical analysis is applied to quantitative information to increase the repeatability of the study (Davies et al., 2020; Yin, 2014; 2018). Furthermore, the researcher makes use of empirical evidence that makes this study deductive. Yin's methodology ensures the researcher's position (axiology) remains unbiased and independent; epistemology purports realism, while epistemology is objectivist (Primecz, 2020; Roth et al., 2020). All these elements are characteristic of the positivist paradigm (Yin, 2014).

## **4.5 POPULATION AND SAMPLING**

### **4.5.1 Population**

A population is a collection of elements from which the researcher makes inferences (Yin, 2014). In this study, the population is the 44 district municipalities in South Africa subdivided into 226 local municipalities.

### **4.5.2 Sampling**

Sampling is the process of selecting a subset which can be analysed to represent the population (Yin, 2014). A case study is performed on one district municipality, Capricorn District. A discussion of the sampling method is not common in qualitative case studies, but this study is a mixed-method case study and thus requires sampling (Yin, 2014; Onwuegbuzie & Collins; 2007).

Onwuegbuzie and Collins (2007) recommended various typologies suitable for mixed-method case studies, which echo those suggested by Yin (2014)

### **Sampling methods**

Sampling approaches include non-probability sampling and probability sampling. Examples of non-probability/ non-random sampling strategies are purposive, convenience, and quota sampling (Stewart, 2014). Random sampling or probability sampling strategies that involve selecting elements by chance include stratified, cluster, and systematic random sampling (Stewart, 2014; Yin, 2014). Onwuegbuzie and Collins (2007) and Yin (2014) conclude that both probability and non-probability sampling are relevant to mixed-method studies.

The typology of sampling methods relevant to this study from those recommended by Onwuegbuzie and Collins (2007) is purposive and stratified sampling.

### **Purposive sampling**

Purposive sampling involves the intentional selection of elements in a population (Yin, 2014). CDM is selected because published and audited information is easily accessible to the researcher. Moreover, CDM is the highest contributor to Limpopo's Gross Domestic Product. It is the capital district and economic hub of the rural province of Limpopo and is conveniently located near the researcher. CDM, therefore, gives an insightful representation of the province, allowing generalisable information on budgets and the OBLM applications to be obtained and applied at the national level.

### **Stratified sampling**

Stratified sampling is used as heterogeneous subgroups of data from CDM and is classified into environmental, social, and economic subgroups for evaluation (Onwuegbuzie & Collins 2007; Creswell, 2014). From these three divisions, elements of each group are randomly selected. For instance, social would include household service delivery, e.g., sanitation, education, and housing. The economic group would address the Gross Domestic Product (GDP), Human Development Index (HDI) and Gini ratio in the district. The environmental outcomes are assessed using the district's air quality, biodiversity, and climate change.

### **4.5.3 Sample Size**

The sample size refers to the observations or participants used in a study (Creswell,2014). This case study focuses on Capricorn District Municipality (CDM) in Limpopo province and occasionally refers to its four local municipalities, namely Polokwane, Lepelle-Nkumpi, Blouberg and Molemole (CDM, 2019). This makes it a single embedded case study design.

### **4.5.4 Unit of Analysis**

Yin (2016) defines the unit of analysis as the focus of investigation in this study. The unit of analysis, in this case, is the Capricorn District Municipality (CDM). Specifically, the application of the budget and OBLM performance evaluation tool for monitoring and controlling operations in CDM is the focus of this investigation.

## **4.6 DATA MANAGEMENT**

### **4.6.1 Nature of Data**

There are two types of data: primary and secondary data (Creswell,2014). Primary data is obtained by the researcher through interviews and surveys, while secondary data is obtained from pre-existing documented sources.

The researcher uses only the secondary data extracted and collected from third parties (Yin, 2014; Yazan, 2015). This study uses secondary data sources from documentation, journal and newspaper articles, and municipality websites (Yin, 2014; Yazan, 2015). The advantage of collecting this kind of data from websites is that it has already been cleaned and audited (both internally and externally) (Manzoor, 2020). Audited secondary data is more precise since professionals verify it, making it reliable and of high-quality (Manzoor, 2020).

#### **4.6.2 Data Collection**

Data in this study is collected from multiple sources in the public domain. This data triangulation is done for each research question, as Yin (2004; 2014) emphasised. The data collection started at the beginning of the study, and the researcher commences data collection after the Research Ethical Clearance from UNISA approves the methodological processes in this study.

Multiple data sources are used in this study, including government documentation, archival records, and independent websites. Only stable, publicly accessible, and incorruptible data is extracted (Yin, 2014; Manzoor, 2020). Authentic, reprehensible, and credible data is collected. The researcher enters the exact names, details, and references into the database. This data is affordable and flexible for any other use (Manzoor, 2020).

The internally generated and externally sourced data from various government departments are used. Independent data vendors also provide information. The following are some data sources: CDM website, the National and Provincial Treasury, Limpopo socio-economic review, Department of Environmental Affairs, SALGA, CoGTA, newspaper articles, global Insight, IHS Markit Regional results, Municipal IQ, and published journals. Diversifying data sources allows cross-analysis of information and reduces the risk of political bias and influence found in government documentation (Pritchard, 2014). Legislative documents (PFMA and MFMA) are also used to provide structural meaning, and interpretation and to create a basis for analysis (Flick, 2011; Yin, 2014; Yazan, 2015).

#### **4.6.3 Data Analysis**

Method and data triangulation is applied to the study. Method triangulation applies qualitative and quantitative analysis methods in mixed-method studies (Yazan, 2015). Yin (2016a) describes data triangulation as multiple sources and analysis techniques used in a study.

Yin (2016b) describes the data analysis stage and describes it as follows:

“It consists of examining, categorizing, tabulating, testing, or otherwise recombining both quantitative and qualitative evidence to address the initial propositions of a study” (p. 109)

Each research objective has multiple data analysis techniques, and the rationale for using these techniques is discussed. The following section details the data analysis per research objectives.

## **RESEARCH OBJECTIVE ONE**

*To investigate the influence of legislation (PFMA and MFMA) and the New Public Management theory on the budgetary metrics and OBLM applications in Capricorn District Municipality.*

Content analysis is used to investigate the influence of PFMA, MFMA, and NPM on the application of performance evaluation tools. Three data analysis methods are used for the research objective:

- i. Qualitative Gap analysis: qualitative analysis to determine the gap between 16 NPM elements and actual documented practices in CDM (Techera & Troniak, 2009).
- ii. Becker's quasi-statistical technique on 14 NPM elements.
- iii. The South African Legislative Disclosure Checklist, as prescribed by the Public Sector Division of the South African Institute of Chartered Accountants (SAICA, 2020), determines the legislative elements used to assess CDM's administration. A quasi-statistical analysis is also applied to the results (Maxwell & Chmiel, 2014)

### **The rationale for using these three methods**

Document analysis in the qualitative gap analysis. Greener (2011) and Kumar (2014) prescribe document analysis as relevant for crisis management. Béland and Howlett (2016) concur with this opinion and prescribe document analysis to resolve maladministration in municipalities. In response to these assertions, the researcher analyses CDM's documents in a bid to resolve the financial crises and maladministration in the municipality.



Such a crisis occurred when municipal managers ignored the MFMA in the VBS scandal, which led to millions of rands in losses (SoLGA, 2015; Viljoen,2019).

The qualitative gap analysis allows for differences between expected (NPM and legislation) and actual practice to be highlighted (Techera & Troniak, 2009). This gives a standpoint from which the researcher can infer recommendations and solutions. Legislative frameworks (PFMA and MFMA) are used as a checklist against which documented practices in CDM are analysed. Becker's quasi-statistical methods are applied to the results, and the following descriptors are used: "full influence," "partially influence," "absence of influenced," and "non-applicable" (N/A). Relative frequency is calculated on these descriptors (Maxwell & Chmiel, 2014).

## **RESEARCH OBJECTIVE TWO**

*To determine the financial health situation in Capricorn District Municipality.*

The municipality's financial health is defined in terms of financial performance, financial position, budget implementation, and cash management (SoLGA, 2020). The financial health of CDM is analysed in the following ways:

- 1) Expenditure streams
- 2) Revenue streams
- 3) MFMA circular 68 expenditures
- 4) Cashflow ratios
- 5) Environmental Sustainability Ratio
- 6) MFMA Circular 71 ratios

### **The rationale for using these techniques**

Revenue streams and expenditure patterns are analysed using graphs to demonstrate patterns and relationships. OPEX and CAPEX are analysed using bar graphs, linear graphs, and combo graphs to increase data readability, understandability, and integrity.

Cashflow ratios analyse cash management from operating, financing, and investment activities in the municipality (Sengupta, Atri, Venkatesh, Sinha, and Arun, 2013).

The liquidity and solvency management in CDM is determined so that recommendations to mitigate financial distress can be made (SoLGA, 2019).

MFMA Circular 71 provides uniform ratios and norms for municipalities. These are used in this study for purposes of construct validity. The ratios are applied to 3 municipal budgets: operating, capital, and cash budgets.

Microsoft Excel and SSPS statistical packages are used for statistical analysis and graphical presentation of findings. Data analysis procedures are applied to each budget published on the CDM website, their elements analysed, and the rationale discussed in Table 4.2 below:

**Table 4.2: Strategy for Analysing the Financial Health in Capricorn District Municipality**

CDM BUDGETS ANALYSED	ELEMENT ANALYSED (2014-2019) AND RATIONALE Expenditure patterns and financial performance
<p><b>Budgeted Financial position</b></p> <p>(Revenue and expenditure; Statement of financial position)</p>	<p>This will show the following:</p> <ol style="list-style-type: none"> <li>1.How revenue and expenditure are controlled and managed</li> <li>2.Revenue streams: Sources of OPEX and CAPEX funding</li> <li>3.Patterns in OPEX and CAPEX</li> <li>4.Changes in MFMA circular No 68 expenses: Irregular, unauthorised, fruitless, and wasteful expenditure patterns</li> <li>5.Financial ratios (MFMA circular 71) Show the application of budget for controlling and monitoring: To assess the state of CDM's performance</li> </ol>
<p><b>Budgeted performance</b></p> <p>Statement of comprehensive income (SOCI)</p>	<p>Operating expenditure (OPEX) and capital expenditure (CAPEX) are analysed. Information from this statement is also used for MFMA circular 71 calculations.</p>
<p><b>Budgeted cash flow statement (CFS)</b></p>	<p>Analyses cash from financing activities, operating activities, and investment activities. The 7 Cash flow Ratios used in the study are listed below: Cash flow coverage ratio, non-current liability coverage ratio; Current liability coverage ratio; Operating cash flow; Asset efficiency ratio; Cash generating power ratio, and lastly, External financing ratio.</p>

Source: Researcher's construction

### **RESEARCH OBJECTIVE THREE**

*To assess the triple bottom line outcomes arising from the budgetary metrics and OBLM application in Capricorn District Municipality.*

The triple bottom line outcomes are the social, economic, and environmental outcomes that benefit the community as a result of CDM administration of the budget and OBLM. The social outcomes in this study refer to household service delivery statistics, education, water, sanitation, housing etc. (SoLGA, 2020). The economic outcomes relate to unemployment, poverty levels, infrastructural development, GDP, Gini ratios etc. (CDM,2020). The environmental outcomes are the air quality; natural resource conservation and preservation; water quality, services, and management; waste recycling and disposal; biodiversity management and climate change (CDM, 2020; South African Waste Information Centre (SAWIC) 2021). It is important to note that socio-economic welfare such as human health, food availability and agronomics thrive when environmental sustainability is practised.

### **RESEARCH OBJECTIVE FOUR**

*To assess the management accounting practices applied in the budgetary metrics and OBLM in Capricorn District Municipality.*

Management accounting practices (MAPs) assist in controlling and monitoring, and these influence budgetary and OBLM applications. MAPs lead to organizational learning and effective and efficient achievement of strategies. This study utilizes MAPs that are relevant to the public sector from the Chartered Global Management Accounting Technical Competency Framework (CGMA) (2019).

The CGMA framework has four groups of skills: business, technical, people and leadership skills. This study will only focus on technical skills, categorising MAPs into seven key competencies subdivided into 32 areas. The checklist format from the World Bank Group (2017) is adapted into a colour assessment checklist to assess CDM's application of these MAPs. The proficiency applied to each MAP is determined and guided by the CGMA schedule. The framework has four levels of proficiency: foundational, intermediate, advanced, and expert level.

This theoretic replication (theory-testing method) adds generalizability, rigour, accuracy, construct validity and an unbiased outlook to the study (Yin, 2014).

## **RESEARCH OBJECTIVE FIVE**

*To determine the suitability of the budgetary metrics and OBLM as tools for monitoring and controlling performance in Capricorn District Municipality.*

This objective seeks to determine how effective the OBLM and budget are for controlling and monitoring. Reference is made to findings in Chapter 3 empirical evidence which demonstrate the application of the OBLM and budget as monitoring and controlling tools. Also, the suitability of the tools is assessed by analysing the presence of control systems from the three theories, Simon's LOC, Malmi and Brown and Langfield-Smith, which the researcher synthesised into Strategic Planning controls, Governance controls, Performance evaluation controls and Behavioural controls (SGPB controls) in Chapter 2. The underlying assumption is that a suitable monitoring and controlling tool will possess all SGPB controls.

## **ROOT CAUSE ANALYSIS**

This qualitative approach synthesises all the information obtained from all the research objectives. A holistic evaluation of CDM is carried out to find the root cause of CDM's maladministration. This use of a qualitative root cause analysis in municipal analysis is not a new phenomenon. This approach has been used by SALGA (2018) and AGSA (2019). This analysis will assist in prescribing solutions to both the main and minor problems.

## **4.7 CREDIBILITY, VALIDITY, AND RELIABILITY**

### **4.7.1 Terminology Applicable to MMCSR**

Qualitative and quantitative research have different terminology ascribed to them to ascertain the credibility of the research design, data collection, and data analysis procedures (Hennink et al., 2020).

Quantitative research is associated with the following terms and concepts: construct, external generalisability, internal and external validity, and reliability.

These are usable for quantitative research, where the research outputs are referred to as 'results. (Hennink et al., 2020; O'Cathain, 2020).

Qualitative research uses terms such as trustworthiness/true value, consistency, internal validity, analytic generalisability and applicability and the outputs of such research are called 'findings' (Yin, 2014; Manzoor; 2020 & Hennink et al., 2020; O'Cathain, 2020).

This MMCSR study possesses both qualitative and quantitative elements making all these terms appropriate when analysing three core elements of this study, i.e., the research design, data collection and data analysis processes.

#### **4.7.2 Credibility of Research Design**

The researcher used Yin's five stages methodology inception to the conclusion making the research (Yin, 2014; Yazan, 2015). Yinian research design allows for the logical replication of steps taken in this study. Using codified designs increases the repeatability, uniformity, validity, trustworthiness, and robustness of this study.

This study makes use of existing theoretic frameworks and checklist formats from international bodies, which increase the construct validity and generalisability of the study (Yin, 2013). The use of various theories is called theoretic triangulation. The theoretic frameworks used in this study are the NPM, MSC, CGMA competency frameworks, the MFMA and PFMA, whilst the checklist formats are from the World Bank Group and SAICA. Yazan (2015) concedes that these systematic processes add validity and relevance to a study.

#### **4.7.3 Credibility of Data Collection**

The researcher uses multiple sources of evidence from internal and external sources to increase the validity and trustworthiness of the findings (Carter, Bryant-Lukosius, DiCenso, Blythe, & Neville, 2014). Swart, Swanepoel and Surujal (2014) used information from different government departments to cross-reference information and eliminate bias.

This study uses a similar format of cross-validating information from various government departments and private data vendors. Verified information from CoGTA, SALGA, CDM website, STATS SA, Southern African Protected Areas database (SAPAD), South African Conservative Areas database (SACAD), Department of Environment and Agriculture (DEA) South African Waste Information Centre (SAWIC), IHS Global Insight and Municipal IQ is cross-referenced.

This data/source triangulation ensures trustworthiness, reliability, and the true value of information, generalisability, and repeatability (Yin,2016a). The researcher also uses empirical evidence to add value and the quality of external validity (analytical generalisation) (Yin,2002; Edmonds & Kennedy, 2012). Figure 4.3 below summarises the source triangulation used in this study:

**Figure 4.3: Source Triangulation**



Source: Researcher's construction

#### **4.7.4 Credibility of Data Analysis**

The researcher employs methodological, theoretic, and investigator triangulation in data analysis procedures to add to the credibility, internal validity, and trustworthiness of the study (Yazan,2015).

Methodological triangulation involves the use of qualitative and quantitative methods inherent to mixed-method studies. Mixed method research facilitates methodological triangulation in this study (Yin, 2004, 2009, and 2016). The strengths of all these methods ensure the study is replicable, applicable, trustworthy, and has true value (Carter et al., 2014).

Theoretic triangulation in this study assists in verifying findings and, in this case, three theories, the Simons LOC, Malmi and Brown theory and Langfield-Smith theory, legislation, CGMA and NPM theory are used (Carter et al., 2014).

The researcher adheres to these theories and uses measurement procedures consistent with the theories.

For instance, the MFMA theory informs ratio analysis and interpretation, ensuring construct validity, generalizability, and objectivity of findings (Yin, 2014; Yazan, 2015).

Investigator triangulation in this study is achieved through peer debriefing. The supervisor and peers cross-checked the results and findings of this study. Recalculations produced similar and comparable results, which ensured consistency, and replicability in this study. Furthermore, the researcher invited peers to evaluate the decision-making processes to ensure researcher independence, transparency, and trustworthiness (Yin, 2014; Yazan, 2015).

Triangulation fosters consistency; construct validity by eliminating myopic perspectives constructs of mono-methods and mono-operational bias (Yin, 2016). The methodological, theoretic and investigator triangulation used in this study to eliminate novelty disruption, construct confounding and reactive self-reporting (Carter et al., 2014).

#### **4.8 ETHICAL CONSIDERATIONS**

The ethical conditions needed in this study were verified by the University of South Africa, which issued an ethics approval needed to continue this study. This study uses secondary data. The exclusion of participants in this study eliminated the need to get permission from respondents and privacy. Secondary data is highly ethical as public sector data is available in the public domain and does not get corrupted when the researcher downloads it. The researcher also uses audited information guaranteeing its trustworthiness. Data from third parties and various departments reduce researcher bias. Peer debriefing and theory testing methods increase reliability while eliminating construct confounding and subjective interpretation (Jol & Stommel, 2016).

Transparency and objectivity of research procedures are assured by self-constructed databases available as audit trails, and referencing is done to avoid plagiarism (Houghton, Casey, Shaw & Murphy, 2010).

#### **4.9 SUMMARY OF CHAPTER**

Chapter 4 defines the research methodology that influences research design, data collection, analysis, and interpretation techniques. Each research objective is addressed individually. Chapter 5 continues with this layout and presents the findings and results of the study per research objective.



## CHAPTER 5

### DATA ANALYSIS RESEARCH FINDINGS AND RESULTS

#### 5.0 INTRODUCTION

This chapter is applied O'Cathain's (2020) approach to present findings and results for each research objective. The O'Cathain approach derives findings from quantitative data analysis and results from qualitative data analysis.

The research objectives discussed are:

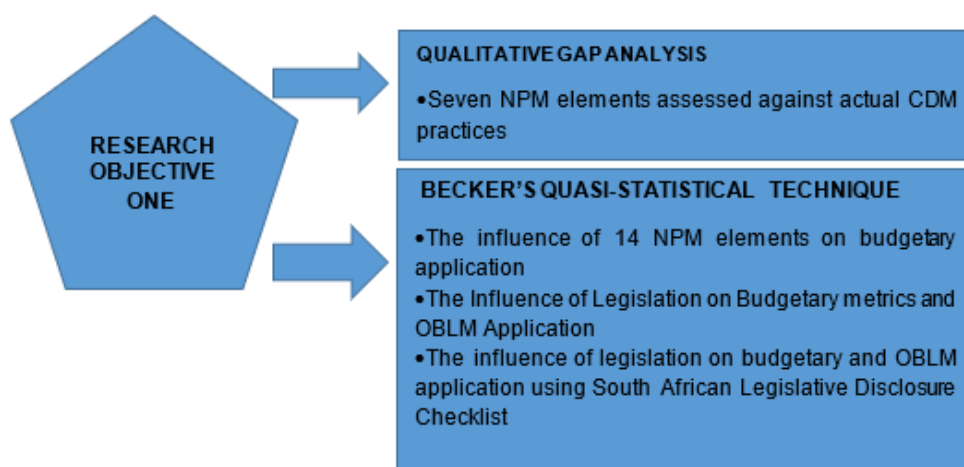
1. To investigate the influence of legislation (PFMA and MFMA) and the New Public Management theory on the budgetary metrics and OBLM applications in Capricorn District Municipality.
2. To determine the financial health situation in the Capricorn District Municipality.
3. To assess the triple bottom line outcomes arising from the budgetary metrics and OBLM application in Capricorn District Municipality.
4. To assess the management accounting practices applied in the budgetary metrics and OBLM in the Capricorn District Municipality.
5. To determine the suitability of the budgetary metrics and OBLM for monitoring and controlling performance in Capricorn District Municipality.

#### 5.1 RESEARCH OBJECTIVE ONE

*To investigate the influence of the New Public Management theory and legislation (PFMA and MFMA) on the budgetary metrics and OBLM applications in Capricorn District Municipality.*

This research objective seeks to understand how CDM applied NPM and legislation in budgetary metrics and OBLM applications. Figure 5.1.1 below shows the layout of the results and findings for research objective one.

**Figure 5.1.1: Layout of Discussion**



Source: Researcher's construction

### **5.1.1. Qualitative Gap Analysis**

#### **Seven NPM Elements Assessed Against Actual CDM Practices**

The gap analysis consists of the seven key New Public Management (NPM) theory elements discussed in Chapter 3, i.e., focus and measurement criterion, quality oversight, government role, budgetary improvements, participation, privatisation, and organisational structure and governance. These elements are examined against the documented practices in CDM. The theory is compared against the actual practice in this study, referred to as theoretic replication (Yin, 2016). This is done to establish gaps between actual and expected practices.

González (2009), Iliopoulos and Zadik (2021) used the statistical gap analysis approach to compare actual practice with existing theories. While statistical approaches are not applied in this study, a qualitative approach based on secondary data analysis is used. This approach was also used by Christmas and de Visser, Jaap (2009), and Techera and Troniak (2009). Recently, Bang (2021) used a similar approach to examine legislative frameworks against actual responses to disaster management. Therefore, the NPM theory shall be analysed against CDM's actual practices as documented on their websites in this research.

Table 5.1.1 below presents the qualitative gap analysis where the seven NPM elements are discussed against actual documented practices. The documents used in this content analysis are from the CDM website and independent sources such as Auditor-General South Africa (AGSA), Cooperative Governance and Traditional Affairs (COGTA) (CoGTA), Department of Planning, Monitoring and Evaluation (DPME), Department of Agriculture and Education (DAE), Statistic South Africa (STATS SA), Municipal IQ, South Africa Local Government Association (SALGA), National and Provincial Treasury, and newspaper articles. Reference is occasionally made to CDM’s local municipalities Lepelle-Nkumpi, Blouberg and Molemole.

**Table 5.1.1: Seven NPM elements assessed against actual CDM practices**

NPM ATTRIBUTES	DOCUMENTED PRACTICES IN CDM
<p><b>The focus of NPM and measurement criterion</b></p> <ul style="list-style-type: none"> <li>•Compliance with management systems and accounting standards</li> <li>•Outcomes management over outputs orientation</li> <li>• Entrepreneurship and innovation</li> <li>•Performance criterion: triple bottom line outcomes</li> </ul>	<ul style="list-style-type: none"> <li>•AGSA reports non-compliance with the Generally Recognised Accounting Practices (GRAP) and management systems in 2017-2019. This has been the case with Polokwane and Lepelle-Nkumpi, CDM’s local municipality. On the other hand, CDM itself received a clean audit on its financial governance (AGSA, 2019). There is inconsistent application of management control systems and economic management techniques, and indicators to monitor, control, and evaluate service delivery outcomes (DPME, 2016). Outcomes nine of NDP highlight the need for efficiency effectiveness, transparency accountability in tendering, supply chain, procurement, and financial management. CDM requires more effort to achieve these standards (DPME, 2018; AGSA, 2017).</li> <li>• Outcomes and performance-based measures replaced output management. Despite this, the measurement system experienced large negative variances in outcomes (Rubakula, 2014).</li> <li>•No scope for entrepreneurialism and innovation outside of the scope of the legislation and national objectives (Naidoo, 2019).</li> <li>• CDM’s measurement systems are clearly defined with weak follow up strategies since the same problematic issues are repeated over the years (AGSA, 2018). Comparable environmental and social progress measures lag as countries update their indicators (S &amp; P Global Ratings, 2019; Kenane, 2018).</li> <li>•Triple bottom line applied: social, economic, and environmental goals are made in line with the sustainable development goals (SDGs) and the 14 National development outcomes. Quantitative and qualitative, and sustainability measures are used, and the DPME (2018), Department of Environment Affairs (DEA, 2018) and the Municipal Public accounts committee (MPAC) assist in regulating.</li> <li>•The limited engagement of social scientists led to minimal social progress and environmental indicators that are internationally</li> </ul>

	<p>comparable, especially related to carbon emission and endangered species preservation (WESG, 2018) (Lepodise, 2017). Key performance indicators are present but failed to improve performance. The GDP, HDI, and employment levels do not monitor and control economic development at the local and district level. New measures need to be introduced by various databases, e.g., World Environmental, Social and Governance data (ESG, 2020), S&amp;P Global ratings (2020), and IHS Markit Global insight (2019).</p>
<p><b>Quality oversight</b></p> <ul style="list-style-type: none"> <li>•Legitimacy in service delivery</li> <li>•Re-engineering of business processes</li> <li>•Contracting professionals</li> </ul>	<ul style="list-style-type: none"> <li>•The legitimacy of service delivery is compromised by corruption, breaches in contracts, and failed application of project and supply chain management techniques leading to inefficient service delivery and poor monitoring of service level agreements (Municipal IQ, 2018).</li> <li>• Lepelle-Nkumpi’s old non-functional business processes are maintained (Viljoen,2014). Overall, CDM’s poor oversight resulted from vacant management positions and high turnover due to suspensions (Matlala, 2016; Viljoen, 2016). CDM suspended and replaced four municipal managers and four mayors in 2014 (Moloto, 2014).</li> <li>•CDM uses one-stop-shop, service level agreements, Public-private partnerships (PPP) and outsourcing to improve service provision in CDM (AGSA, 2018). Outsourcing did not lead to a transfer of skills. Contracts were tendered to relatives or government officials, which meant unfair bidding processes (AGSA, 2019).</li> </ul>
<p><b>Government Role</b></p> <ul style="list-style-type: none"> <li>•Empowering Political leadership with macro policies and goals.</li> <li>•Professional bureaucrats make decisions with economic rationality.</li> <li>•Separation of administration from politics</li> </ul>	<ul style="list-style-type: none"> <li>•National legislation attempts to separate political duties from municipal administration. CDM does not exhibit complete separation in its semi-decentralisation structure (CDM, 2020). Delegation and deconcentration to lower levels of government are facilitated by the district development model (DDM).</li> <li>•Mayors and councillors (linked to political parties) are the political bureaucrats assisting municipal managers in financial decision making. Government policies, objectives and macro goals are from parliament and the National treasury impact district-level decisions (Dintwa, 2021). Municipal managers' service terms and operations are aligned with the dominant political party (Naidoo, 2019; State of the local government finances and financial management (SoLGF) (2019).</li> <li>•The National treasury (2019) highlights the roles of each and the separation of duties.</li> <li>•Negotiations and persuasions are allowed if they are within the ambits of legislation and mayoral approval. Each local and district municipality is allowed to draft its IDP within standardized parameters. Negotiations for budget adjustments must be approved by the National treasury as prescribed by protocol (National Treasury, 2017).</li> </ul>
<p><b>Budgetary Improvements</b></p>	<ul style="list-style-type: none"> <li>•Budgetary reforms remain bureaucratic guided by requiring strict adherence to legislative legislation, which has over the years leaned more towards NPM, which adopts some private-sector practices guidelines. Reforms have included accrual accounting, the inclusion of sustainability and technology (mSCOA operations) and outcome-based management. Contract price budgeting was increased though disgruntled creditors</li> </ul>

	<p>remain unpaid Contract pricing budgets were introduced though they are compromised by corruption and nepotism (AGSA, 2018).</p> <ul style="list-style-type: none"> <li>•MFMA and PFMA ensure standardisation of formats, submission policies and evaluation processes. Initially, poor-quality financial statements and reports were given that did not align with legislation (AGSA, 2014). However, the MFMA and PFMA were increasingly adopted, and CDM was given a clean audit with no findings. NPM private sector practices have a bearing on budgetary administration (Naidoo, 2018). For instance, accrual accounting and outcome-based performance measures are in place. CDM, however, characteristically fails to meet outcomes despite outcomes-based management initiatives. Some outcomes are met (National Treasury. 2018).</li> <li>•Accrual accounting was adopted, and contract price budgeting was introduced Disgruntled creditors remain unpaid Contract pricing budgets are compromised by corruption and nepotism (AGSA, 2018)</li> <li>•MFMA and PFMA allow for ingenuity, accountability, and compliance management, which is deemed to improve efficiency and effectiveness, rather than reinventing financial management systems within limits (AGSA, 2016).</li> <li>•CDM's budget deficit and expenditure patterns show a lack of budgetary control and discipline. OPEX increases while CAPEX is decreased, much to the detriment of service delivery and municipal growth (Matlala, 2019).</li> <li>• Elements of the Traditional Public Management (TPM)'s guardian spender is retained are evident as. The guardian spender framework is still operational, and the political agenda occasionally influences expenditure. Managers' power and authority to allocate resources are limited by the political arm, i.e., the mayor and councillors, as well as the National Treasury. The conditional grant system determines the developmental projects and redistribution efforts at the municipal level to achieve national objectives and policies (National Treasury., 2018; Naidoo, 2018). Resources distribution and utilisation are dependent on the national equaliser transfers and the Provincial Equity Share (EPS). Conditional grants and the NDP determine resource allocation at the district level (National Treasury, 2017; Roos, 2020).</li> <li>•In a bid to be re-elected, political offices also influence resource utilisation (political budget cycles) and political entitlement resulting from political affiliation. The District Development Model closely aligns with the NPM theory of decentralised resource utilisation (Lepodise, 2017; Modjadji, 2014).</li> </ul>
<p><b>Participation</b></p> <ul style="list-style-type: none"> <li>•Involvement of the citizen Clients/micro-relationships</li> <li>•Development strategies and procedures</li> </ul>	<ul style="list-style-type: none"> <li>•Community members are not governed by free-market principles of demand and supply but remain under the guardianship of the municipality. National-level objectives dictate service delivery. Low participation levels are noted though this is resolved by introducing the district development model (DDM) (CoGTA, 2020). The Open Budget Index (OBI) rated South Africa's participation levels at 24%, while Municipal IQ (2018) reports low participation levels for marginalised and low-income community members. Compared to the more affluent community members, minimal representation leads to strikes and protests (Municipal IQ, 2016).</li> </ul>

	<ul style="list-style-type: none"> <li>•Public interest and political interests converged, and transparency was realised by releasing all required documents by third parties such as AGSA, SALGA and published court cases. Newspapers release information not discussed in financial statements, e.g., the VBS scandal</li> <li>•Risk management policies are elaborated, and bureaucracy transparency, efficiency and effectiveness are cited as important in CDM operations (Lepodise, 2017).</li> <li>•Community members have little knowledge of budgetary administration and how they can hold municipalities accountable. A small fraction participates in holding management accountable (Sithole &amp; Mathonsi, 2015). CDM, however, has made efforts to be inclusive using a framework of ward councillors, committees, ward participatory systems, and elections. CDM reports that councillors’ meetings and outreach programmes with the community were held 722 times in 2018, and 781 ward meetings were held the same year. Neighbourhood councils and e-democracy websites were created to increase transparency. Feedback systems in CDM include the complaints management system and social media platforms. However, a digital divide hindered the effectiveness of online platforms as 29% of CDM had internet access (CDM, 2019).</li> <li>•Annual reports, newspapers, flyers, brochures, loud hailing, radio, social media, district newsletters, and Batho Pele events (CDM, 2019; AGSA, 2017).</li> <li>•The above list shows one-way communication methods that do not allow feedback and citizen control over service delivery projects (Smalle, 2016). Citizens’ complaints about poor service, and incorrect billing led to poor revenue collection by the municipality and protests (Ramathwala, 2019, Mahlakoana, 2016, Matlala, 2019). At one time, CDM wrote off a 50-million-rand debt (Maponya, 2011).</li> </ul>
<p><b>Privatization policy</b></p> <ul style="list-style-type: none"> <li>•social equity and reduction of public sector dominance.</li> <li>•PPE environment subject to market mechanisms</li> <li>•performance-related pay, fines for failed service delivery, contracts regulate entrepreneurs’ activities</li> <li>•Social equity, public policy, and design; Career development</li> </ul>	<ul style="list-style-type: none"> <li>•Two systems are in co-existence, indigent policies, and PPE in CDM.</li> <li>•Basic services such as water and electricity were privatised but still under government administration. The government offers free basic services, price-fixing, and welfare distribution (Hamid et al., 2020; Zimmer &amp; Grabbe, 2020). The government municipality retains control over basic services in a bid to ensure the poorer and previously disadvantaged groups have access to them. CDM’s low efficiency, absence and delays in service delivery are noted by Kimma (2019) and Statistics South Africa (STATSSA, 2017). Key areas of municipal development are still centralised and determined at the national level, and conditional grants are given to aid in achieving these national-level objectives (CDM, 2019).</li> <li>•Budgetary reforms remain recommended for national implementation by National Treasury (2019). They remain bureaucratic, guided by legislation and evolving towards NPM and some private-sector practices. These reforms included accrual accounting, the inclusion of sustainability and technology and outcome-based management. Financial systems and IT structure were upgraded with the Municipal Standard Chart of Accounts (mSCOA) in 2017. Contract price budgeting was increased though disgruntled creditors remain unpaid and compromised by corruption and nepotism (AGSA, 2018).</li> <li>•MFMA and PFMA ensure the standardisation of formats, submission policies and evaluation processes (Naidoo, 2018). The focus is on</li> </ul>

<ul style="list-style-type: none"> <li>•Procedural accountability and compliance</li> </ul>	<p>compliance with legislation and the constitution. MFMA and PFMA allow for compliance management, which is deemed to improve efficiency and effectiveness, rather than reinventing financial management systems (AGSA, 2016). CDM’s budget deficit and expenditure patterns show a lack of budgetary discipline (Matlala, 2019).</p> <ul style="list-style-type: none"> <li>•CDM’s budgets do not balance though budget capping is done. Underspensing and overspensing are permitted (National Treasury,2018; SoLGA, 2018). Performance-based budgeting and Outcomes-based budgeting are included. Budget auditing (internal and external results) are published in financial statements (CDM, 2019). Municipalities did not have a culture of responding to audit findings. The late Kwini Makwetu reported that the auditing environment became increasingly hostile for MPAC, internal audits, audit committees and external auditors (AGSA, 2018).</li> <li>•Citizens and managers participate in budgeting though most decisions are made at the parliamentary level (CDM, 2020). Elements of the Traditional Public Management (TPM)’s guardian spender exists though they decline. Managers’ power and authority allow them to allocate resources yet are limited by the political arm, i.e., the mayor and councillors as well as the National Treasury. The conditional grant system determines the developmental projects and redistribution efforts at the municipal level (National Treasury, 2018; Naidoo, 2018). Resources distribution and utilisation are dependent on the national equaliser transfers and the Provincial Equity Share (EPS). Conditional grants and the National Development Plan determine resource allocation at the district level (National Treasury, 2017; Roos, 2020). The new District Development Model, which is closely aligned with NPM theory, decentralises resource utilisation decisions at district levels (Lepodise, 2017; Modjadji, 2014).</li> <li>•CDM encourages competition as it outsources and bids tenders out. Public-private partnerships have increased since 2014 (CDM, 2020). However, the development is plagued by political affiliation and entitlement, which leads to corruption and collusion and the hiring of incompetent entrepreneurs (Ramathwala, 2019). Poor regulation, control and monitoring of projects resulted in low quality and incomplete services. Matlala (2019) mentions, i.e., that a 47-million-rand water project was left incomplete. Full payments were made to contractors before the completion of the project. Backlogs in service delivery projects remain while substandard facilities became a cause for disgruntlement. CDM uses contingent tools, delivery and project tracking systems which remain inefficient (DPME, 2017; STATSA, 2018).</li> </ul>
<p><b>Organisational structure and administration</b></p> <ul style="list-style-type: none"> <li>•Municipal networking involves inter-organisational cooperation and coordination in government,</li> <li>• Subcontracting increases delegation,</li> </ul>	<ul style="list-style-type: none"> <li>•CDM sets out its organisational structure and hierarchies. The municipality still applies the silo effect in administration though DPME pushed to integrate operations through networking and coordinated interdepartmental activities. SALGA, SCOPA and CoGTA seek a synergistic relationship between government departments (CDM, 2018).</li> <li>•The politicisation of posts: Municipal managers operate in line with the ruling party, mayor, and councillor influence, not only financial principles (Smalle, 2017). Cadre deployment and not competency are the hiring criteria that compromise professionalism.</li> <li>•Compliance with existing legislation, standards and policies takes precedence over innovation. Innovation is permissible within the regulated framework (mSCOA, 2017; Runji, 2020). Hierarchical political and</li> </ul>

<ul style="list-style-type: none"> <li>•Reduction of hierarchy</li> </ul>	<p>managerial roles are maintained with elements of Traditional Public Management (TPM) though progressively embracing NPM (Naidoo, 2018). Subcontracting and delegation of powers have increased as CDM networks with businesses, specialists, NGOs, and independent organisations to assist, e.g., IHS Markit and STATSSA (CDM, 2018).</p> <ul style="list-style-type: none"> <li>•CDM engages with NGOs to source statistics on development. However, they cannot raise funds from these relationships (SoLGA, 2016).</li> <li>• The manager must consult the budget committee and various financial officers before making decisions (CDM, 2019). Municipal managers must comply with the mayor, councillors, and provincial dictates. Delegation exists but is not as extensive as in western countries. Managers and auditors made Intimidation claims from mayors and councillors (Amusa &amp; Mabugu, 2016; AGSA, 2018).</li> </ul>
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Source: Researcher's compilation

The table above demonstrates that the influence of NPM in CDM is more consistent with the framework for low to middle-income countries (LMICs) discussed in Chapter 3. However, as far as less economically developed countries (LEDCs) are concerned, CDM exhibits similar TPM characteristics (discussed in Chapter 2): cadre deployment, high government interference, indigent policies bureaucracy and a culture of compliance and social equity policies. CDM has tempered TPM with NPM principles. NPM elements are exhibited in outsourcing, hiring competent staff, increased private-public partnership and presence of market mechanisms in some services, and environmental consciousness. NPM influence in CDM is not as evolved as in more economically developed countries (MEDCs), e.g. (New Zealand, Australia, and America) and its other LMICs counterparts, namely Malaysia and Singapore.

### 5.1.2. Becker's Quasi-Statistical Technique

Maxwell and Chmiel (2014) presented that the Becker quasi-statistical rating technique recommends using nominal scales in qualitative information. This is meant to give the quantitative conclusion that increases the replicability/internal generalisability (Maxwell & Chmiel, 2014).



## The influence of 14 NPM elements on the budgetary application

While Becker used qualifying statements or descriptors for analysis such as “some,” “usually” and “mostly,” this study adapts this approach to use descriptors such as “full influence,” “partial influence,” “absence of influence,” or “non-applicable (N/A)” - for undeterminable attributes. The relative frequency is then calculated for each descriptor (Spiegel & Stephens, 2008).

Only the elements of the budgetary reforms and improvements are examined across 14 NPM elements for a detailed picture of CDM’s budgetary metrics. Table 5.1.2 below shows the relationship between the descriptors and their assigned nominal values.

**Table 5.1.2: Descriptors and the Assigned Nominal Value**

Qualifying statement/Descriptor	Nominal Value
Fully influence	1
Partial influence	2
Absence of influence	3
N/A	4

Source: Researcher’s compilation

The nominal values assigned to descriptors determine the assessed NPM influence on budgetary applications in CDM as obtained from the Integrated Development Plan and annual report on the website. Table 5.1.3 below shows the NPM elements, the assigned nominal value, and the rationale for the rating.

**Table 5.1.3: The influence of 14 NPM elements on Budgetary Applications**

NPM elements	Nominal Value	Comments
Financial management techniques, good financial governance, auditing by independent parties.	2	AGSA (2020) found that PFMA’s influenced CDM financial management and Generally recognised accounting practices (GRAP). CDM received five unqualified opinions in 2014 and a clean audit in 2019. AGSA (2016/17) submitted a report to the Limpopo Provincial Legislature. Though an unqualified audit was given, several misstatements and mistakes were highlighted. Management did not adequately review the statements before submission. The financial statements did not comply with section 122 MFMA Non-compliance with legislation was cited by AGSA (2017). Its local municipalities, Blouberg and Lepelle-Nkumpi, have received qualified audits, with Polokwane receiving qualified audits 60% of the time (CDM, 2021). In 2017/18, Polokwane and Blouberg were in financial distress. SALGA (2017), DPME (2016), CoGTA (2016), DAE (2018), MPAC, and the Provincial and National

		Treasury (2019) all hold CDM accountable. The SoLGF evaluates the finances and financial management of CDM.
Triple bottom line elements measured	1	Annual reports display performance measures for the municipality's social, economic, and environmental projects (CDM, 2019). As expected, year-end and mid-year performance assessments are done through the National Treasury reports (2019). The Mid-term expenditure framework did not submit performance indicators as required by MFMA section 71 (National treasury, 2018).
Existence of controlling and monitoring mechanisms	2	Budgetary adjustments and revisions are handed into the provincial and national treasury for approval. Comparative analysis of budgets and services is done for five years. Recommendations to fix deviations between budgets and annual reports are made. Moreover, CDM's budgetary projections for three years are compared to current budgets. Monitoring and controlling are evident in the noted decrease in irregular, unauthorised and wasteful expenditure (CDM, 2019). Internal and external audits exist and reports to provincial and National Treasury to ensure compliance. Government agencies such as CoGTA, SALGA, DAE, DPME, MPAC and AGSA control and monitor municipal activities.
Adoption of budgetary reforms which comply with the accrual basis and GRAP. Implementation of performance-based budgeting and outcomes management.	1	CDM complies with GRAP, and the accrual basis as stipulated by MFMA section 122(3) and PFMA section 89(10 (a). The municipality adopted outcomes-based management implemented through the OBLM and Service Delivery Budget Implementation Plan (SDBIP) to achieve the 14 National Development Plan outcomes. Additionally, the SDBIP monitors, controls, and reports service delivery outcomes. National reporting standards are used according to MSCOA. Outcomes-based management is visible in its OBLM to achieve the 14 national Development plan outcomes—the SDBIP monitors, controls, and reports service delivery project outcomes (CDM IDP, 2017).
Budgetary participation by citizens in service delivery projects	2	CDM records low levels of online budgetary participation, with 71% of residents having no access to the internet. For instance, 18% do not have mobile phones in Blouberg, while 94% do not have computers. This reduces the effectiveness of social media outlets created to increase participation. In 2016, household access to the internet was 1493, 1819, 20910, 2340 for Blouberg, Molemole, Polokwane and Lepelle-Nkumpi, respectively. However, its redeeming factors are the community meetings and ward councillors that listen to community members. CDM reports over 722 meetings that councillors had with community members and reports a fully operational community complaints system. CDM has 28 traditional authorities that assist in information dissemination and 113 wards that meet every quarter to discuss citizens' interests. Municipal IQ (2018) ranks the Ward IQ (effectiveness and competency) in Limpopo as the highest, meaning consultative processes are the most efficient. CDM has a poor representation of lower-income earners and rural dwellers, which results in protests. Though free newspapers, fliers, and brochures are handed out, this only facilitates one-way communication. OPEX increases while CAPEX is decreased, much to the detriment of service delivery and municipal growth (Municipal IQ, 2018)

Management autonomy in budgetary allocations and service delivery	3	Budgetary allocations are reviewed by the budget steering committee, councillors, mayor, GoGTA, and the National Treasury Budget and service delivery is subject to conditional grants, while minimal allowance (equity share allocations) gives municipal managers leeway to decide on allocations. These are still subject to approval by the mayor and councillors (CDM IDP, 2017).
Efficient and effective delivery of service delivery	2	The SDBIP and STATSA report increases as well as areas of backlogs. CDM itself reports areas of poor, average, and good service delivery in its Service Provider Performance for Capital Projects report. The Citizen newspaper reported that water projects had dried up after a R47 million investment (Matlala 2019). Water pipes had not been connected in Lepelle-Nkumpi, while some were abandoned in Blouberg. Five water projects were abandoned in 2015-16. Moreover, STATSA reported service delivery backlogs, poor infrastructure and a weak economic base in Lepelle-Nkumpi, while Molemole faced water shortages despite eleven million allocated to water supply, according to the Voice newspaper (2014). Lepodise (2017) reported how only 25% of the municipal budget was spent on sanitation and education in CDM. Schools did not have toilets and water or infrastructure. The educational sector had released fake data declaring sanitation and picketing ensued. Maponya (2019) reported CDM's failure to provide for over a year to a rural hospital while Kimma (2019) reported strikes that left the Oliphant plant closed because the CDM citizens were tired of insufficient water and electricity to primary schools in the area. Sowetan Live's Ramathwala (2019) reported collusion in tenders, which led to unprofessional service providers leaving trenches open, which eventually led to a boy's death.
Service delivery is available to all citizens	3	CDM reports growing inequalities as the Gini coefficient rises and HDI decreases. Municipal IQ (2016) reported poor service delivery in rural areas. Backlogs in Agang, Lepelle-Nkumpi and Blouberg are most reported (STATSSA, 2018), while Polokwane leads to the development of a provincial treasury (2018).
Budget allocations match with service delivery programmes. OBLM meeting target outcomes	2	STATSSA (2017) reports deviations, and so do newspaper articles based on delivery compared to programme outcomes. The SDBIP also record failures and successes in meeting project outcomes despite financial allocations. CDM reports fruitless and wasteful expenditure. Municipal Public Accounts Committee (MPAC) addressed CDM's failure to reconcile budgeted amounts and actual performance for 2019 (Viljoen, 2020).
Political intervention into /management practice in budget and service delivery	1	Political intervention from the national government is high, determining budgetary allocation and service delivery projects at the district level. Mayors and councillors influence decisions that favour their political party (Viljoen, 2016)
Meaningful performance-related pay system (agency – model)	3	Managers' salaries and councillors' wages are the highest costs in municipalities, increasing despite deficient performance and increased debt. SAMWU complained that municipal managers' wages increased by over 40% while employees' wages did not significantly increase (Ramotlou,2015). The incentive schemes failed to mitigate the agency problems as managers and mayors have sought self-interest and enrichment (CDM, 2019; Runji, 2020).

Transparency of budgetary allocations	3	CDM presents all the budgets required by legislation but does not disclose Eskom debts, money illegally allocated to VBS, all its failed service delivery and other fraudulent practices. CDM made 60 million rands worth of investments into VBS against national treasury advice in 2015. The mayor fired the CFO, who argued against such a decision. All these issues are not disclosed in CDM (Matlatla, 2018).
Budgetary discipline	2	Budget slacking is noted with an overestimated budget, and upward adjustments are reported as cost-saving. Additionally, expenditure frequently occurs in budgets. Underspending is also prevalent, especially with CAPEX. Budget ceilings were broken with approval from National Treasury. Another local municipality, Molemole, suspended a municipal manager that incurred 31-million-rand worth of irregular expenditure (Naidoo, 2020)—underspending in amounts allocated for infrastructural development and managers investing one million in their bank accounts instead of the MFMA deposit accounts (Maponya, 2016).
Accountability measures for budget indiscipline failings and retaining institutional knowledge among managers.	1	CDM has the highest turnover of suspended mayors, managers, and dismissals. Suspensions remain paid as managers attend hearings. In 2013 the municipal manager was suspended for corruption. The employees liable for wasteful and fruitless expenditure do not pay back the money lost as required by MFMA circular 68 (Mandawana, 2016). corruption. This lack of accountability led to irregular expenditure patterns continuing in local municipalities. Thus, two years of administration were conducted without a municipal manager (Viljoen, 2015). In 2015 Polokwane municipal manager was suspended, and six directors were. In 2016 there was again a high turnover of core positions as three executive managers. Managers failed to monitor existing internal control systems and lacked expertise (AGSA, 2017). CoGTA, SALGA, DAE, DPME, MPAC, Provincial and National Treasury and community members (through protests and complaints) assist in holding the municipality accountable through vacant positions and suspensions making this difficult due to the lack of continuity (Matlala, 2016). Municipal managers are replaced every five years though CDM has a trend of suspending and replacing them before the full tenure due to corruption and fraud. Elevated mayoral and managerial turnover due to suspensions led to new ideas being implemented and abandoned before fruition (Modjadji, 2014, Viljoen, 2016). There is, therefore, no continuity of leadership and retention of institutional knowledge (Modjadji, 2014, Viljoen, 2016).

Source: Researcher's compilation

The frequency counts are made on the nominal value allocated in Table 5.3 above to enable a quantitative assessment of the qualitative information (Spiegel & Stephens, 2008; Maxwell & Chmiel, 2014). The occurrence of each nominal value is depicted in the frequency Table 5.1.4 below:

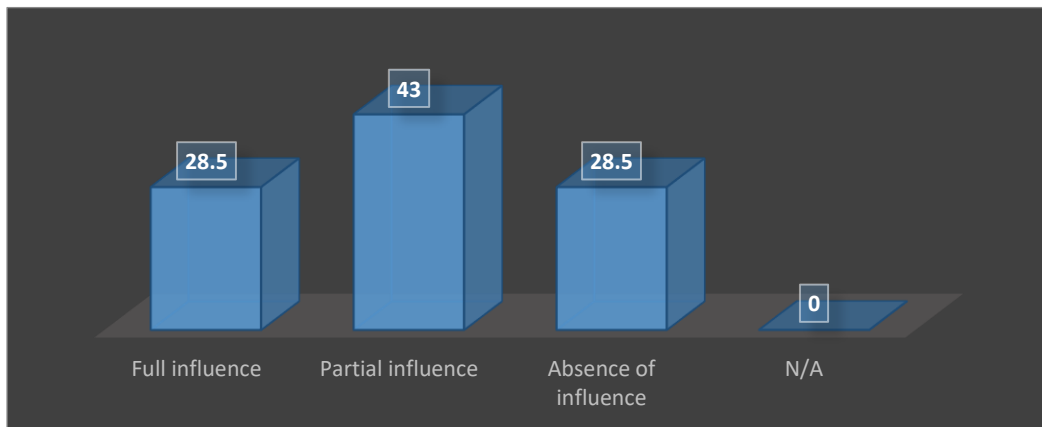
**Table 5.1.4: Frequency Table**

DESCRIPTORS	NOMINAL VALUES	FREQUENCY COUNT	RELATIVE FREQUENCY	
			Fraction	%
Full influence	1	4	4/14	28,5
Partial influence	2	6	6/14	43,0
Absence of influence	3	4	4/14	28,5
N/A	4	0	0/14	0
Total occurrence	n/a	14	14/14	100

Source: Researcher’s compilation

The results show mostly ‘partial influence’ (43%) of the 14 NPM elements in CDM’s budgetary application. This finding is consistent with Naidoo’s (2018; 2019) study that NPM is partially adopted in South African municipal governance. These findings are also comparable to the findings from the qualitative gap analysis of this study, as discussed in Figure 5.1.2 below:

**Figure 5.1.2: Relative Frequency showing NPM influence**



Source: Researcher’s construction

**The influence of legislation on budgetary and OBLM application using the South African Legislative Disclosure Checklist**

The elements of legislation analysed in this study are limited to those mentioned in Chapter 2. The influence of legislation is assessed against prevailing documented CDM practices (theoretic replication).

This approach benefits from the studies done by Bang (2021) and Christmas and de Visser (2009), who compared legislative framework to documented practices to determine the influence of legislation on actual practices by different entities.

In this study, the South African Legislative Disclosure Checklist (SALDC), designed and implemented by the Public Sector Division of the South African Institute of Chartered Accountants (SAICA, 2020), is used as the framework for assessment to give construct validity.

The SALDC checklist uses descriptors such as “Yes,” “No,” and “N/A” to assess compliance. However, this study adapted the following descriptors “full influence,” “absence of influence,” “partial influence” and “N/A” in place of the SALDC checklist descriptors.

The checklist is divided into Section A for MFMA elements and Section B for PFMA elements. Nominal values are assigned to descriptors to give quantitative expressions of legislation influences on CDM’s budgetary and OBLM applications. See Table 5.1.5 below:

**Table 5.1.5 The South African Legislative Disclosure Checklist Applied to CDM**

<b>SECTION A: MFMA LEGISLATIVE CHECKLIST CDM ACTIVITIES</b>		
<b>Elements Of Legislation</b>	<b>Nominal value</b>	<b>Comments On Observed Legislative Influence 2014-2019</b>
<p>MFMA Act No 56 of 2003 - describes the competency required for key financial position holders (only the qualifications and skills are explored here)</p> <p>MFMA regulations 15 and 19 require all management to have skills, experience, and academic qualifications.</p> <p>Filling vacancies of key positions to ensure the availability of competent staff in the organisation</p>	3	<p>CDM uses a remuneration strategy to set out the qualifications required according to MFMA prescription. CDM has made progressive steps to hire competent staff. For instance, in 2017 acting municipal manager and CFO failed to reconcile their submissions to SARS, and failed to pay invoices on time (Maponya, 2018). AGSA (2016/17) presented to the Limpopo Provincial Legislature that the CFO and management did not adequately monitor and review the financial statement or ensure compliance with laws. Failure to reconcile budget and performance increased and led to MPAC intervention (Viljoen, 2020). To fix this error, CDM in 2018 hired a CFO who is a chartered accountant, and a municipal manager who has an MBA (CDM, 2018). In 2017 the municipal manager and CFO failed to reconcile amounts owed to SARS correctly. The audit committee was non-functional as it had expired (Senyatsi, 2017). This problem persisted as unqualified, incompetent, and corrupt management has submitted fake</p>

<p>MFMA section 127 and MFMA circular 63- Competency requirements</p>	<p>3</p>	<p>qualifications in the office (Runji, 2020; Dintwa, 2021, Cassiem, 2021). Molokoto (2014) reports a high turnover of managers. CFOs did not oversee the IT policies and protocols, leading to poor performance and information security (AGSA, 2015).</p> <p>Visibly unoccupied offices in the organogram worsen the performance gap. Eight vacant positions, 22 finance and administration positions and vacant managerial positions were observed (CDM overview, 2019), while CoGTA (2018) reports 94 vacant positions. One of CDM's local municipalities, Lepelle-Nkumpi, in 2014/15 did not have a municipal manager since 2013 (Viljoen, 2013). In 2019 Lepelle Nkumpi had vacant posts for Municipal manager and CFO (Limpopo Provincial Treasury,2019). An annual report 2017/18 Annual report</p> <p>The council disbanded, and the audit committee expired, leaving the system open to fraud. Cadre deployment is visible (Senyatsi, 2017). CDM has a vacancy rate of 85 % of staff positions including management</p>
<p>Public participation conducted on annual reports</p>	<p>3</p>	<p>Annual reports are tabled and published with various participation methods from face to face, online and traditional methods of citizen participation (CDM, 2016).</p>
<p>53 of the MFMA requires budgetary alignment with service delivery outcomes, reports and the IDP. Fund allocation must match IDP and the service delivery and budget implementation plan (SDBIP).</p>	<p>3</p>	<p>Service delivery is aligned with the budget and outcomes in the SDBIP. Under expenditure and over-expenditure is still present in in-service delivery. It assesses its strategic approach with all its government spheres starting from wards-based plans to Municipal IDPs, District growth and development strategies to Limpopo's Development plan, the MTSF right up to the National Development Plan. Vertical and Horizontal alignment of strategic goals is assessed using Limpopo MEC's IDP credibility rating from 2014 to 2019. The IDP/SDBIP rating is reportedly aligned throughout the five years. Non-alignment, partial, and medium alignment are noted throughout its local municipalities, i.e., Lepelle-Nkumpi, Molemole and Polokwane (CDM, 2018). Fund allocations are adjusted and do not match exact amounts in IDP (CDM,2017; AGSA,2016)</p>
<p>3-year budgets on revenue earned and expenditure are approved by the council.</p>	<p>1</p>	<p>3-year budgets are approved by the council and reported to have been approved by Limpopo provincial treasury (Limpopo National Treasury, 2019).</p>
<p>Reporting and disclosure, implementation and reports aligned to actions</p> <p>MFMA requires an annual report for each financial year</p>	<p>3</p>	<p>Disclosure of documentation is aligned with MFMA. Annual and multi-year disclosures are published. Audit reports were disclosed with municipal annual reports according to section 121(3) of the MFMA. Non-compliance with MFMA must be disclosed according to section 125 (2) (e). AGSA (2018/19) did not present an opinion on this disclosure. Municipal managers and CFOs fail on occasions to submit Section 71 MFMA reports in the five local and district municipalities. These failings are disclosed in the list of Non-compliance with section 71 of the MFMA compiled by National Treasury (2020). The information disclosed in some years were not consistently displayed in the following years, e.g., financial ratios, and</p>

		measurements of sustainability issues (DPME, 2018; AGSA, 2018).
Section 80 of the MFMA requires each municipality must have a budget and treasury office headed by the Chief financial officer (CFO).	3	Each local municipality has its budget, as does the CDM. However, there were instances where the CFO's office was vacant. High turnover in management and instability as some managers were dismissed (Limpopo Provincial Treasury, 2018).
Section 71 MFMA accounting officer submits monthly budget statement tabled every month	1	CDM submits monthly budget statements from 2014-to 2019, excluding Lepelle-Nkumpi. Limpopo publishes a list of non-compliant municipalities treasury where Polokwane and Blouberg occasionally appear (2014; 2015; 2016; 2018; 2019).
Generic municipal budget cycle MFMA circular 19. Improved planning, and budgeting for sustainable and efficient decisions	1	CDM follows the budget cycle consistently, and this is reported in its IDP. National Treasury made a list of budget improvements to be implemented on a national scale (National treasury, 2019; CDM, 2019)
Section 75 of MFMA requires key documents and activities to be published publicly.	1	Budgets, adjustments, annual financial statements, S71 reports, the IDP draft and final version, newsletters, videos etc., are displayed on websites (CDM, 2017). CDM has some information disclosed but does not disclose all the information important to stakeholders. Newspaper articles expose information on various illegalities that were not displayed on CDM websites, e.g., VBS illegal expenditure, Eskom debts, and service delivery failures are not exposed (VBS Scandal Capricorn mayor explains R60m investment, 2018; Mandiwana, 2016; Viljoen, 2018)
Chapter 15 of MFMA financial conduct regulation of financial misconduct.	3	AGSA (2016/17) reported misconduct in CDM, which resulted in the suspension of 5 employees who resigned while on suspension on 2 <sup>nd</sup> November 2016. Suspension of municipal managers and mayors for maladministration is the consequence of financial misconduct (Modjadji, 2014). In 2015 Dube (2015) reported the suspension of mayors. Municipal managers and the mayor involved VBS scandal was suspended with full pay (Mandiwana, 2016). In 2016 three CDM executive managers and a Chief Finance Officer were suspended based on South African Municipal Workers Union allegations (Boshego, 2016; Matlala, 2021). There are no fines, or imprisonment imposed on perpetrators though suspensions of three high ranking officials from the mayor to municipal managers have been rampant in CDM. Suspensions were made with payments (Maponya, 2016). These managers served the municipality interdicts to stop investigations against them (Boshego, 2016). S32 MFMA requires managers liable for unauthorised, fruitless, and wasteful expenditures to recoup that money (Matlala, 2017). These repayments were not enforced. In 2017 acting municipal manager and CFO only apologised for maladministration with no additional consequences (Matlala, 2017).
Section 18 realistic revenue forecasts and inflow between billing and collection.	3	Internal generation of revenue is low in CDM as it is largely rural. Revenue projections are low and long timelines to recoup finances are allocated. CDM relies on grants (CDM, 2018).
The budget is prepared according to MFMA, S71 report and Council resolution. The National Treasury disallows	2	Municipality allows millions of irregular, fruitless and unauthorised expenditures before investigation. This has decreased over five years. (CDM, 2019). A list of municipalities that are non-compliant with S71 was listed.



expenditure that does not comply with MFMA.		In 2016 and 2017, CDM and its local municipalities failed to submit the required indicators, according to a report on 31 March. In 2018 and 2019, CDM is implicated in non-compliance again. Throughout the five years, CDM and its local municipalities have repetitively failed to fully comply with section 71. The mSCOA governance structure was implemented in Blouberg, Capricorn, and Polokwane, not Lepelle-Nkumpi.
S88 of MFMA. Mid-year budget and performance assessment by the accounting officer	3	The performance failure continued, and delivery targets were not met. National treasury (2018) reports failure by CDM to submit performance indicators. CDM's local municipalities also failed to present necessary annexures. This may be partly due to the accounting officer position being vacant for some periods and the officers failing to adequately review information (CDM, 2019; AGSA, 2017).
S121 of the MFMA involved the preparation of reports.	3	Annual reports for each financial year are published in CDM and reports presented to National Treasury (2017). However, reports on corruption, illegal investments, growing liability to Water providers, and service providers, and corrupt management activities were not published (Kenane, 2018).

### **SECTION B: PFMA LEGISLATIVE CHECKLIST**

The Mayor S52 guides fiscal, financial affairs, annual budget preparation	1	CDM visibly implements S52 yet retains information that could lead to stakeholder dissatisfaction. Mayors engage in corruption and collusion at the expense of financial management principles. Naidoo (2018) notes political budget cycles. AGSA (2018) reports Mayor engagement in audit processes leads to improved performance. CDM and its local municipalities have incurred debt and current liabilities above budget despite the mayor's oversight (CDM, 2019)
Section 215 discusses acceptable budget formats and processes to eliminate debt and ensure efficiency in cash management.	3	CDM adhered to budget formats. Debt is still unregulated and increasing, and inefficiencies in dealing with liquidity and insolvency in CDM's local municipalities exist. The budgeted cash flow statement on the CDM website follows prescribed formats as recommended by the National Treasury (2018), but the municipality faces liquidity and solvency issues.
The Accounting Standards Board in PFMA chapter 11 decided on the accounting standards to be employed in public entities, Generally Recognised Accounting Practice (GRAP) and accrual basis policy	3	<p>The GRAP, accrual accounting and outcomes-based management are part of the existing system regulations. AGSA (2016, 2017, 2018) reports irregularities in the application of accounting policies and reporting standards at its local municipalities. National Treasury findings on the state of Local Government Finances (2017/18) found that CDM failed to structure creditor and payroll policies and procedures. Debts remained high, and liabilities increased. Cash flow management in CDM remained poor. Polokwane and Lepelle-Nkumpi are in financial distress, while Molemole is on the brink of disaster.</p> <p>The late auditor general stated that Blouberg and Lepelle-Nkumpi had unqualified audits from 2014 to 2019. Molemole had unqualified audit opinions with findings throughout the five years. Polokwane had qualified audits from 2016 to 2019 (CDM, 2019; AGSA; 2015, 2016, 2017, 2018). CDM holistically, however, performs better than its local municipalities and earned an unqualified clean audit</p>

		opinion with findings from 2014-2017 and a clean audit in 2018/19.
New forward-focused budgetary (MTSF framework)	1	Implementation of the medium-term strategic framework (MTSF) and new systems have been adopted in CDM and are published. The guidelines in the National treasury are followed and published on the CDM website (CDM, 2018)
Section 39 of the PFMA discussed budget control and discipline techniques; budgetary control	3	CDM has reduced irregular expenditure, fruitless and wasteful expenditure drastically. Under collection of revenue is still an issue and results in revenue shortfall. Underspensing of grants for infrastructural development and service delivery is also noted. Overspending in OPEX is also an issue (CDM, 2018; Maponya, 2019)
PFMA requires monitoring and evaluation at each stage as well as cumulatively.	3	Internal audits do monitor and evaluation. CDM reports having had four audits. Monitoring and evaluation are done by external government bodies such as DPME and COGTA. Financial management does not yield changes in some areas of poor performance. The audit committee was disbanded for a while, leading to failures to manage SARS liability in CDM. (Dintwa, 2021; Senyatsi, 2017; Mail & Guardian, 2018)
The PFMA discusses the attainment of sustainability goals	3	Sustainability issues discussed still need to be increased in scope and depth to include quantitative analysis. Climate changes are also qualitatively addressed concerning high temperature and decreased crop quality. The qualitative analysis ranks performance from good to poor and assesses risk from high risk to low risk. Extensive maps are used to illustrate biodiversity. Waste management sites are mentioned with quantities of toxic waste (Integrated Waste Management Plan 2019). PFMA sustainability issues are not all aligned with CDM's IDP (CDM, 2018; Polokwane State of the Environment Report, 2016)
Chapter 10, Section 100 and 216 of the PFMA addressed the sanctions and consequences for mismanagement	1	There is a lack of continuity in governance because of the high turnover in municipal managers. CDM was left in limbo in 2015 till the next municipal manager was hired. Its local municipality, Lepelle-Nkumpi, operated for extended periods from 2014 without a manager, which compromised accountability (Boshego, 2016). Blame is shifted to previous managers, mayors and CFO making governance ineffective. The CFO who tried to comply with legislation was suspended in 2016. Except for suspensions and dismissals, no additional sanctions were imposed (Maponya, 2019; CDM suspends Executive Manager: Corporate Services, 2020 Mail and Guardian, 2018; Viljoen, 2016; 2020).
Section 217 stipulated that services and resources are expected to be distributed along the lines of equity, equality, non-discrimination, fairness, and justice.	3	This is partially observed; however, there is a lack of municipal bylaws stating how this will be and has been achieved. Low-income groups complain of lack of services, while those in richer locations have fewer complaints. South Africa has ranked among the highest inequality and lowest intergenerational development with CDM's Gini coefficient of 0,62 is higher than that of its province. The highest inequality exists in Polokwane, while the lowest is in Blouberg. The SAMPI level in CDM is 8, 5, which is above the national level. This means CDM has higher poverty levels and indigents. The HDI in CDM

		remains higher than Limpopo's but still lower than the national level (Municipal IQ, 2017; STATSSA, 2018; World Bank Group,2018)
Submission of IDP drafts and reviews to the relevant treasury before year-end	1	This was done in CDM, and the IDP reflects the report by Limpopo's MEC IDP findings and the budget review process (CDM, 2018). The Limpopo provincial treasury (2019) also reports compliance with the procedures on budget submissions with council resolutions and quality certificates.
Section 52 Annual budget, corporate plan disclosure	1	IDP reports having satisfied this requirement.
Projected revenue and expenditure streams and borrowings over three years.	1	This format is displayed in the budgeted and actual financial statements as described by MFMA, National Treasury and CDM (2019).
Irregular, fruitless and wasteful unauthorised expenditure	1	These expenditures are disclosed in CDM's financial statements (CDM, 2019).
PFMA section1		
Treasury (TR) 29.1.1 Strategic objectives, outcomes KPIs and outcomes must be disclosed with a risk management plan, disaster recovery and prevention plan	1	National and district strategic plans and outcomes are discussed. Plans for risk and disaster recovery are well discussed in the IDP. Successes in dealing with fire disasters are well documented in CDM. The risk in CDM is coded in red, yellow, and green, with red being the highest level of risk that needs priority intervention. Efficiency in implementation must be evaluated. CDM also highlights its limitations in terms of infrastructure and staff to meet disasters. This is currently outside the scope of this study (CDM, 2019).
TR 29.2 financial plan showing revenue, expenditure, cash flow, asset, and liability management	1	CDM discloses financial budgets, expenditure classifications, cashflows, asset management and other management accounting techniques (2015-2019). The Auditor-General gave a report regarding these and concluded the financial governance in CDM is good (AGSA, 2015-2019).
TR 53(1) Budget submitted for approval having efficient working capital and cash management. Disclosure of Material losses from criminal activities, disciplinary consequences, bad debts written off, subsidiaries activities, investment decisions and directors' emoluments	3	All these processes required by this legislation were met. However, on occasions, budgetary deficits incurred were outside the scope of the budget. This led to unauthorized expenditure increasing in the district municipality (CDM, 2019). CDM has poor liquidity and debtor collection period. Additionally, CDM extended the credit payment dates compromising its working capital position. The municipality did not disclose material losses through criminal activities were not disclosed the municipality discloses bad debts and subsidiaries' activities. CDM displays the director's basic salary, allowances, contributions, and bonuses are disclosed in the financial statements. Share options and strike prices were not disclosed, while other material benefits were exposed in newspapers, e.g., unbudgeted petrol expenditure and vehicle purchases (Maponya,2018). The municipality manages to carry out budgeted Cash flow analysis is carried out and so is variance analysis. CDM failed to disclose its investment long-term investment in 2016. Blouberg, Aganag, and Lepelle-Nkumpi did not submit these reports. In 2019 only Lepelle Nkumpi failed to submit.

Audited statements and auditors report on that statement.	1	CDM has all audit reports and opinions for prior and current years on the website. Internal and external audits are carried out. An audit committee is elected (CDM, 2019).
26.1.1 Quarterly Reporting. With actual and forecasted	1	CDM has complied with this rule. The municipality gives actual and forecasted amounts for revenue and expenditure. These reports are available at the provincial treasury (CDM, 2019)
TR 29.1. Submission of annual reports to the National Treasury and Auditor general.	1	CDM has complied with this requirement in 2019, and the National Treasury reported on this compliance (CDM, 2019; AGSA, 2019).
TR 29.3.1 /TR 30.2.1 Quarterly reports on targets achieved in line with the strategic plan.	1	CDM met these requirements and handed in reports every quarter. The MSTEF and Service Delivery Budget Implementation Plan shows the targets and reports. CDM follows a series of underspending and overspending reflected in the IDP (CDM, 2019).
TR 26.1. The entity shows the extent of compliance with PFMA	N/A	Insufficient information to produce a conclusion as it is not present in the documents reviewed (CDM, 2019: National Treasury, 2019)
53(2) Budgets submitted to the executive officer by the accounting officer	1	CDM complied with this requirement (CDM, 2019)
53(3) Budgetary deficit and surplus to be approved by National Treasury	3	CDM complied with this requirement though it exceeded these limits in unauthorised expenditure (National Treasury, 2019)
30.1.3 Strategic plan and outcomes. Multiple-year projections.	1	This information is disclosed with multiple projections in the budgets for three-year periods. Strategic plans, objectives and outcomes are discussed (CDM, 2019).
28.1.5. Treasury regulation's materiality and significance framework must be discussed	3	CDM has partially met this requirement by disclosing some figures. Fruitless, wasteful, and irregular expenditure is disclosed (CDM, 2019). Nonfinancial materiality is disclosed, that is, significant joint ventures and shareholders. However, issues concerning losses made due to criminal conduct and the disciplinary actions taken are not disclosed in CDM (2019).
38(1) (j) Transparency, effective financial management has written assurance in internal controls and procurement.	3	Written assurances and quality certificates are submitted with the S71 report given by management while internal auditors and AGSA provide other assurances. (AGSA, 2019). Mahlakoana (2016) and Maponya (2019) expose collusion and corruption in the supply chain despite the existence of anti-corruption systems and the supplier (CSD).
TR 30.1.1 Strategic plans handed six months by year-end.	1	CDM has complied with this requirement (CDM, 2019)
TR 29.1.6 The corporate plan and borrowing plan submitted to National Treasury timeously	1	National treasury reports indicate that CDM complied with the requirement (CDM, 2019). In 2018 CDM and its local municipality failed to disclose the relevant data strings and reports on external loans. 2019 Lepelle-Nkumpi

Source: Adapted from the Public Sector Division of the South African Institute of Chartered Accountants (SAICA, 2020)

Similar descriptors (full, partial, absence of influence and N/A) and nominal values to Table 5.1.2 on NPM are maintained. Frequency counts are made on the nominal values in Table 5.1.5 above. The relative frequency is calculated, which gives quantifiable expressions of the occurrences of each descriptor (Spiegel & Stephens, 2008). Assigning percentages adds numerical value to qualitative information (quasi-statistical analysis) (Maxwell & Chmiel, 2014), and this is done in Table 5.1.6 below:

**Table 5.1.6: Frequency Distribution Table**

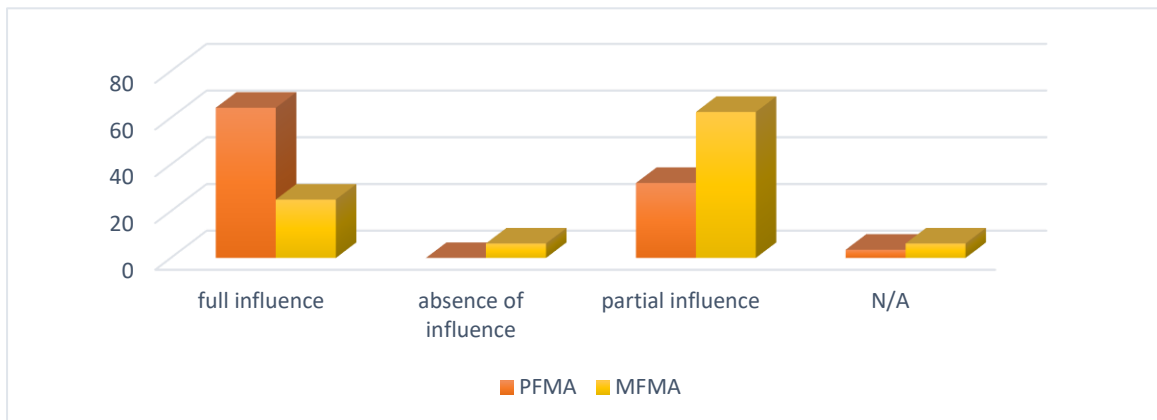
Descriptor	NOMINAL VALUE	PFMA		MFMA	
		FREQ COUNT	RELATIVE FREQ %	FREQ COUNT	RELATIVE FREQ %
Full influence	1	17	60,7	4	25
Absence of influence	2	0	0	1	6,2
Partial influence	3	10	35,7	10	62,5
N/A	0	1	3,6	1	6,2
Total		28	100	16	100

Source: Researcher's compilation

These findings reflect that PFMA influences CDM practices more than MFMA. This is interesting since MFMA is tailored for municipal governance and service delivery while PFMA is more concerned with public administration. PFMA is 100% influential, while MFMA has a 10,5% absence of influence and 63,2% partial influence. MFMA also has 5,2 % while PFMA has 3, holistic analysis.

The MFMA level in this study does not support the Open Budget Index (OBI) (2017), finding that legislative oversight in South African municipalities is at 91%. However, from a PFMA perspective, this assertion seems to have some relevance with a 64,3% level. Figure 5.1.3 depicts that PFMA is more influential than MFMA.

**Figure 5.1.3: Legislative influence in CDM: PFMA relative to MFMA**



Source: Researcher's construction

### **An integrated overview of findings and results on Objective 1**

NPM has influenced the administration of the governing laws, precisely PFMA and MFMA in Capricorn District Municipality (CDM). However, CDM has not fully adopted NPM practices like its western counterparts. CDM is mostly influenced by PFMA than MFMA and non-compliance with these governing laws accounts for the maladministration in CDM as evidenced by third party reports i.e., newspapers. Whilst CDM reports increasing influence in PFMA and MFMA the press presents an opposing view.

### **5.2 RESEARCH OBJECTIVE TWO**

*To determine the financial health situation in Capricorn District Municipality.*

Financial health is defined using the State of the Local Government Finances and Financial Management (SoLGF) framework. This framework outlines the following fundamental attributes which are:

- The financial performance: this reflects revenue and expenditure patterns.
- The financial position: this assesses the net assets and owners' contribution.
- The cash management: this shows the cash inflows and outflows (liquidity solvency position) and lastly
- The budgetary implementation; reflects budget control and monitoring

All these elements are stipulated in the MFMA Circular 71. Figure 5.2.1 below outlines the layout of the results and findings for Research Objective Two.

**Figure 5.2.1 Layout of Discussion**



Source: Researcher construction

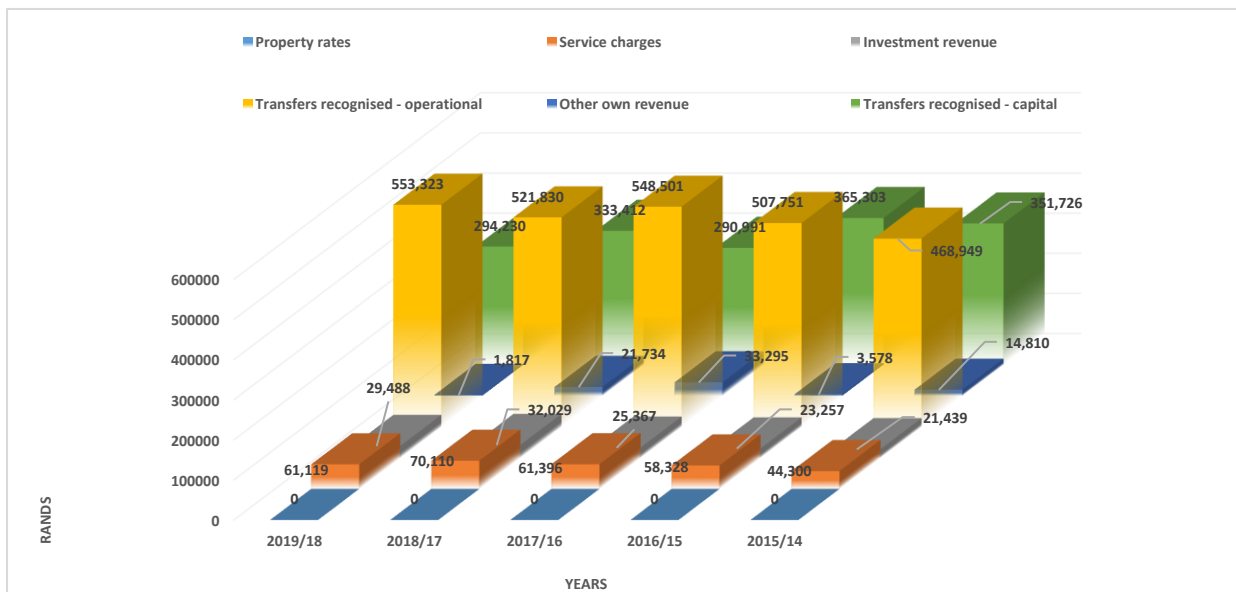
### **5.2.1. Financial Performance**

This section discusses Revenue streams, Operating expenditure (OPEX) and Capital expenditure (CAPEX), as well as MFMA Circular 68 expenditure types (the unauthorised, irregular, fruitless and wasteful expenditures).

#### **Revenue Streams in CDM**

The revenue streams of CDM are analysed and presented in Figure 5.2.2 below. The following sources of revenue were analysed, property rates, service charges, investment income, other revenue, and transfers from the national government to fund operational and capital expenditure.

**Figure 5.2.2 CDM’s Revenue streams (figures in millions of rands)**



Source: Adapted from CDM website (2020)

Figure 5.2.2 above shows that national government transfers are the main source of revenue streams, creating a dependency syndrome by the municipality on national government transfers. It is interesting to note that operating expenditure allocations are above capital expenditure allocations meaning there will be minimal development in CDM. Minimal capital development means negative implications on long term service delivery.

This is worsened by the finding that CDM does not have an effective capacity to internally generate revenue for its financial needs between 2014-2019. Revenue from service charges is the main source of internally generated income, and this revenue is also far below municipal needs. Property rates have yielded no income at all.

There are also exceptionally low levels of investment income, possibly demonstrating that CDM has failed to establish lucrative relationships with its public-private partnerships and investors. This finding contrasts with countries like the USA and Brazil which have developed good strategies to augment their investment income through contributions from the private sector for its municipal developments (Steccolini, 2019; Zimmer & Grabbe, 2020).

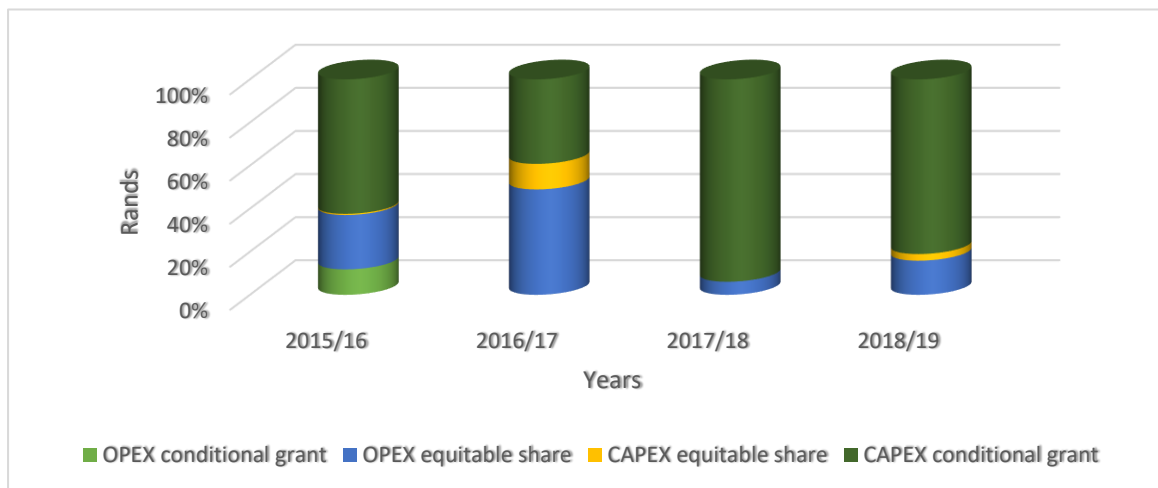
It is interesting to note that government capital transfers fluctuate during the five years, disrupting municipal planning because of instability in revenue streams.



### Conditional and Unconditional Grants (Equitable Share Grants)

A dynamic within the National Transfers towards CAPEX and OPEX in CDM comes in the form of conditional grants and unconditional grants (equitable share). Revenue distributed as an 'equitable share' is raised at the national level and distributed to lower-level municipalities. The district municipality will determine what they use the funds for as long as it is within the parameters of the Constitution of SA (section 227(1)). Figure 5.2.3 below shows the relationship between conditional grants and equity shares.

**Figure 5.2.3 Conditional vs Equity share grants for OPEX and CAPEX**



Source: Adapted from CDM website (2021)

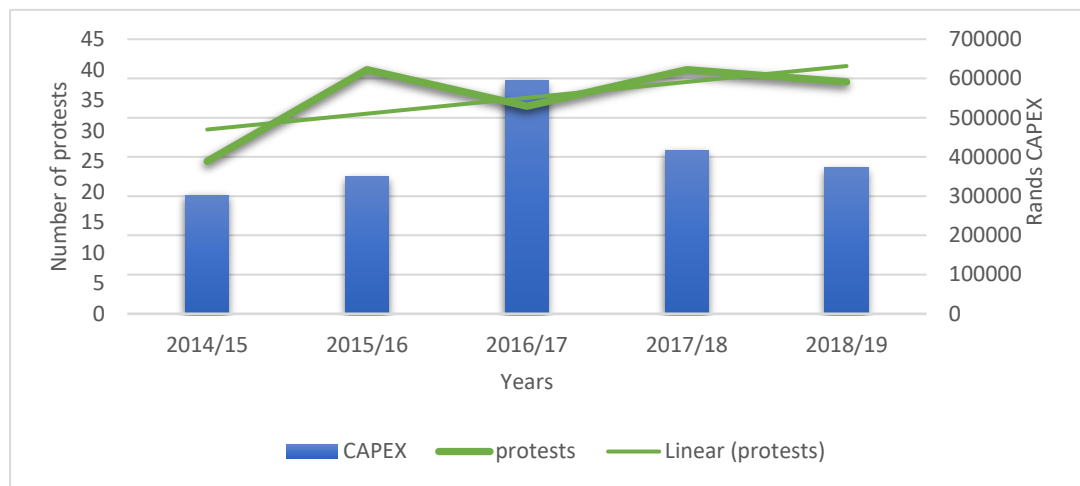
OPEX funding mainly comes as an unconditional grant (equitable share) which gives the municipality flexibility to address their operational needs that are not linked to infrastructural development. Figure 5.2.3 above shows that CDM does not determine most of its capital developments because the conditional grant prescribes to CDM what they should do, unlike the unconditional grant (equitable share). This has the potential to limit stakeholder involvement in identifying projects that meet their needs. This can negatively affect service delivery while incurring high operational overheads.

## Expenditure Streams

### CAPEX Patterns

Capex is funded from national conditional grants. Figure 5.2.5 demonstrates fluctuations in these allocations. These fluctuations in allocations have resulted in a gradual decrease in CAPEX expenditure, as shown in Figure 5.2.5. Since CAPEX is related to service delivery, the reduction in CAPEX has resulted in increased service delivery protests, also shown in Figure 5.2.5.

**Figure 5.2.5 Relationship between CAPEX and Service Delivery Protests**

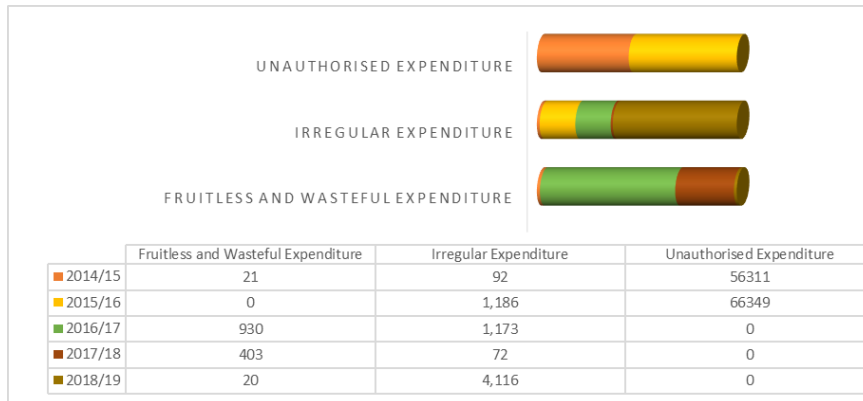


Source: Adapted from CDM website (2021)

## MFMA Circular 68 Expenditures

MFMA Circular 68 outlines the major types of expenditures that shall be used to analyse illegal financial leakages in CDM. These are shown in Figure 5.2.6 below:

**Figure 5.2.6: MFMA Circular 68 Expenditures**



Source: CDM website (2020)

Figure 5.2.6 MFMA circular 68 expenditures (figure in thousands of rands)

The following conclusions can be made from the Figure:

- Illegal financial leakages still exist, but these are erratic, exhibiting no discernible pattern. These are in the form of fruitless and wasteful expenditures and irregular expenditures, which exhibit an erratic pattern.
- However, the municipality seems to have effectively controlled and curbed the unauthorised expenditure to zero occurrences.

## Analysis of the main OPEX expenses

According to CDM (2019), the main operating expenditure (OPEX) relates to employee costs, councillor wages, depreciation and impairment, finance charges, material and bulk purchases, and 'other' expenses paid for by the government transfers and grants. Figure 5.2.4 below illustrates these patterns of expenditure over five years. The amounts are in millions of rounded off to the nearest 100 000.

**Figure 5.2.4 OPEX Trends**



Source: CDM-overview (2020)

Generally, there is an increase in OPEX for all the expenditure types. This finding is exciting given that OPEX funding is from unconditional grants. This gives municipalities the freedom to increase expenditure without efforts towards cost reduction, especially with employment, councillor wages and depreciation estimates which could be subjective and related to bulk purchases. It can be inferred that OPEX is subject to adjustments to meet political ends.

## 5.2.2. Financial Ratios Analysis

The ratios analysed in this section are the cash flow ratio, environmental sustainability ratio and MFMA circular 71 financial ratios.

### Cash Flow Ratio Analysis

Table 5.2.1 below makes a list of 7 cash flow ratios over five years. These ratios are used to measure the ability of the municipality to continue cash generation to meet its financial and service delivery obligations (Chang et al., 2014).

The ratios analysis exposes solvency (settling long-term debts), liquidity (settling short-term debts) and working capital management problems (Hinida, 2020). The current ratio is calculated under the financial performance ratios and will not be done in Figure 5.2.1 below:

**Table 5.2.1: Cash Flow Analysis**

	2019/18	2018/17	2017/16	2016/15	2015/14
<b>Cash flow coverage ratio</b>	0,982139	1,369313	2,269978	1,424426	1,242974
CFO/total liabilities					
<p>The operating cash flow/ total liabilities ratio shows the ability of the entity to cover its total debts (current and noncurrent) using cash flow from operating activities, thus measuring the viability of the municipality. This is a liquidity ratio that shows the operational efficiency of the municipality to stakeholders. A higher ratio would reflect financial flexibility. The ratio in 2015/14 was 1.2, which means the municipality can pay its total debts 1.2 times. This shows financial health that increases till 2017/16. However, a 1.1 decline from 2.3 was noticed in 2018/17. This worsens with the municipality reaching unhealthy financial positions in 2019/18. The municipality can now not pay 0, 98 of its debts. The municipality thus should not take on more debts as it will fail to pay them back. While 0, 98 when converted to percentage is 98%, this shows that the municipality would take one year (100/98) to pay up its debts. This represents sufficient cash flow from operations though it is a decrease from previous years.</p>					
	2019/18	2018/17	2017/16	2016/15	2015/14
<b>Non-current liability coverage ratio</b>	8,007599	9,642501	13,23133	13,06973	10,84219
(CFO/non-current liability) x 100					

<p>This ratio measures the solvency of the municipality. The municipality must pay its borrowings, and this debt coverage is intrinsic to determining if a municipality will be bankrupt. The higher the number means increased municipal health, as shown from 2016 to 2017. The municipality had more cash to settle debts. A downwards trend from 2018/17 to 2019/18 means decreasing solvency requiring management intervention to raise alternative funds for asset financing and developments.</p>					
	2019/18	2018/17	2017/16	2016/15	2015/14
<b>Current liability coverage ratio</b>	1,119439	1,595952	2,740066	1,598659	1,403923
CFO/current liabilities					
<p>This measures the liquidity position of the municipality, and a ratio above one means that the municipality possesses good financial health and can pay its short-term loans. The debt management in CDM for the five years has all been positive. The 2015/14 value of 1.4 means the cash flow can pay 1.4 times its current liabilities. The highest liquidity position reached in the municipality was 2.74 in 2017/16. A percentage lower than one would mean the management would fail to pay its current liabilities. The municipality performs slightly above these margins in 2019/18 with 1.1. The municipality's liquidity position is at risk as it could fail to pay its current liabilities if this continues.</p>					
	2019/18	2018/17	2017/16	2016/15	2015/14
<b>Operating cash flow ratio</b>	0,438966	0,629083	0,575002	0,650231	0,581002
(CFO)/net revenue					
<p>This ratio also measures the viability of the municipality by expressly showing the relationship between the revenue generated from service provision (excludes revenue transfers) during the year. The 0, 58 increase in 2015/14 indicated the cash generated per one rand of sales net revenue. A high percentage shows increased profitability, as in 2016/15 and 2018/17. The CFO has increased consistently with revenue. 2017/16 experienced a decrease which was worse in 2019/18. This deviation signals inconsistency and weakness by municipal managers in revenue collected from service provision.</p>					
	2019/18	2018/17	2017/16	2016/15	2015/14
<b>Asset efficiency ratio</b>	9%	15%	16%	15%	15%
CFO/ total assets					
<p>It is like return on assets (ROA), but this calculation is restricted to cash flow items instead of using profits that include non-cash items. The ratio gauges how well the municipality generates cash using its accumulated assets over the years. In 2015/14, the 15 % means that 15 cents are contributed to operating cash flow from every rand of assets owned by the municipality. The higher the percentage means there is high efficiency. This ratio increased by 1% in 2017/16, dropping by 1% in 2018/17 and 8% in 2019. This meant the operating cash flows from asset ownership decreased, and 9 cents of operating cash flow were produced for everyone rand of asset owned. This shows a decline in efficiency by management.</p>					
	2019/18	2018/17	2017/16	2016/15	2015/14
<b>Cash generating power ratio</b>	85%	62%	45%	59%	31%

The ratio measures the municipality's ability to generate cash from operations, inflows from financing and investment activities with the exclusion of outflows. There has been a 28% increase in the power ratio from 2014 to 2016. However, management failed to sustain this in 2017 because, from 2018 to 2019, there was a 23 % increase. This represents the positive cash flows derived from municipal operations.

	2019/18	2018/17	2017/16	2016/15	2015/14
<b>External financing ratio</b>	0,006004353	0,009123584	-0,003566384	-0,004370595	-
CFF/CFO					0,004510444

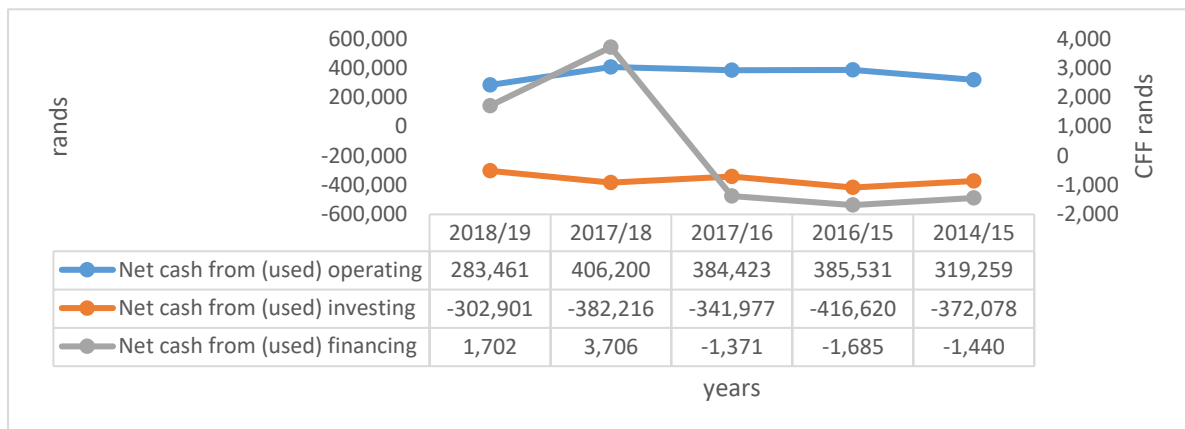
The ratio shows how the CDM's ability to finance its activities. A negative ratio shows the municipality has been able to internally finance growth. This has been the case from 2014 to 2017, but the degree of internal financing is extremely low. The impact is almost negligible. The negative ratios signify the ability repayments, which can be towards stock or debt. 2018/17 to 2019/18 shows CDM with declined capabilities. The highest values of negatives visible in this case, -0,009 and -0,006, show the municipality increased dependency on external financing compared to prior years Management has failed to manage this ratio as the municipality has not been able to significantly sustain itself with internal funding, all values are smaller than -1.

Source: Researcher's construction

### 5.2.3. The Relationship between Operating, Investment and Financing Cash Flow Ratios

PFMA's GRAP 2 prescribes the direct method for cash flow. The Operating cash flows (CFO) benchmark an entity's success administration. According to Figure 5.2.7 below, the CFO in CDM shows that cash received from goods and services offered, transfers, levies, and fines is higher than payments made to suppliers, employees, and litigation (CDM, 2020). CDM received larger inflows from 2014 to 2017, which decreased drastically in 2018/19 with R122 739 million.

Figure 5.2.7 The Relationship between Operating, Investment and Financing



Source: Adapted from CDM (2019)

Cash from investment (CIF) consists of negative values signifying that CDMs use massive cash payments to acquire property, plant and equipment, intangible assets, mergers, and long-term investments in equity and debt instruments (2020). Disposals have not resulted in recoupment.

Cash flow from financing activities (CFF) reveals CDM's funding, including increased owners' contribution, debt financing, debt repayments, finance lease and proceeds from short term borrowings (CDM, 2020).

In 2014-2017 CDM had a negative CFF, focusing on increased repayments of loans, share buybacks and dividends, etc., rather than acquiring financing.

### **Environmental Sustainability Ratio Analysis**

Ratios to measure environmental sustainability are not stipulated by MFMA or PFMA, and neither are they available on the CDM website. Qualitative assessments on CDM are given, rating CDM's sustainability efforts as poor, average, or good (CDM,2020).

### **MFMA Circular 71 ratios**

The financial ratios are used to evaluate the financial health of the municipality. MFMA Circular 71 in Table 5.2.2 prescribes a list of financial ratios that assist in determining the municipality's financial performance, position, and budget implementation.

### **Table 5.2.2: MFMA Circular 71 ratios below**



<b>FINANCIAL RATIO</b>	<b>WHAT IT MEASURES</b>	<b>% Over five years</b>	<b>RATIO INTERPRETATIONS APPLIED TO CDM MUNICIPALITY (Variance analysis)</b>
<b>Repairs and maintenance as to % of PPE</b>  Formula: (Total repairs and maintenance/ PPE) X100	The ratio measures how adequately repair, and maintenance of property plant and equipment (PPE) is done. Inadequate repairs can negatively affect service delivery. The normal rate is 8%.	2014/15: 2,4% 2015/16: 4,9% 2016/17: 6,2% 2017/18: 6,5%	A ratio below the norms means there are insufficient repairs and maintenance. Asset renewal /replacement is an alternative that should be considered. Increased expenditure patterns show high usage of assets. CDM experienced high usage patterns and low repairs from 2014 to 2017. From 2018 to 2019 expenditure has also increased without a proportional increase in the PPE, which indicates bad cash management and spending, leading to bad service delivery. In 5 years, CDMs repair and maintenance has been below the acceptable rate of 8%.
<b>Debtors' management</b> Formula: (Gross debtors opening balance+ billed revenue- Gross debtors closing balance- bad debts) / billed revenue x 100	It indicates the collection rate and measures changes in debtors' values relative to the yearly billed revenue. The norm, according to the MFMA circular 71, is 95%. Outstanding debts should have a 100% collection rate	2014/15: 96% 2015/16: 95% 2016/17: 97% 2017/18: 92% 2018/19: 93%	The first three years in CDM debtor management is just above the margin of 95%. The quality, however, drops in 2017/18 and 2018/19. There is poor debt collection. This compromises revenue streams in CDM. The ratio shows there a decrease in the quality of credit control and revenue management, which needs to be improved
<b>Total outstanding services debtor</b> Outstanding debtors/total annual revenue x 100.	Measures the money owed to CDM for services rendered A lower % is an indication of good performance	2014/15: 126% 2015/16: 203% 2016/17: 203% 2018/19: 126%	CDM is still performing badly in terms of collecting revenue for services rendered to stakeholders. The high percentages have increased over the years showing inefficiencies. 2016-2017 there is stagnancy and no changes in the percentage. However, a 77% decline was noted in 2018/19, which showed improved collection rates. The percentage is still relatively high, reflecting poor performance.
<b>Current Ratio</b>  Formula: Current assets/Current liabilities	This measures the municipalities' ability to pay back short-term liabilities with its short-term assets. According to MFMA circular 71 optimum performance, the norm ranges lie between the ranges of 1:5 to 2:1.	2014/15: 1,5:1 2015/16: 2,6:1 2016/17: 1,5:1 2017/18: 1,5:1 2018/19: 2,4:1	The higher the ratio means the municipality can pay its debts as they fall due. Thus, CDM's current assets must be increased to prevent the liquidation of non-current assets. For the most part, CDM has been at risk, i.e., in 2014, 2016 and 2018, as the ratio is closest to the marginal range of 1:5 rate. However, the ratios are far from the margin 2015/16 and 2018/19 and closest to the higher end of 2:1, which indicates low efficiency in current assets management. Cash is tied up in current assets that could have been used for other purposes.
<b>Capital cost or capital charges to operating expenses</b>  Formula: Interest paid and redemption/ capital cost as a % of total	It measures the cost of borrowing. The payment is measured in respect of % of operating expense % above 8% indicating a high financial risk as the municipality may fail to pay in the event of capital cost fluctuations. This ratio should be assessed	2014/15: 0,1 2015/16: 0 2016/17: 0 2017/18: 0,1 2018/19: 0,1	The capital cost is below the normal standard, which means the borrowing rate for social, economic growth, and development is too low. This also compromises the service delivery potential of CDM. CDM can borrow more to develop its SMART CITY vision and other socio-economic and environmental developments. The low percentage can also be a symptom of cash flow problems or/ and an inability to borrow more funds.

operating expenditure X100	with the cash flow of the municipality		
<b>Debt to total operating revenue</b>  Formula: (short term borrowings overdrafts + short term lease + long term lease)/total revenue- Operating conditional grant	It signals the relative relationship between short- and long-term debt financing in creating operating revenue streams. This revenue can repay liabilities and the affordability of total borrowings while decreasing dependency on government transfers. The norm is 45%. Less than 45% indicate possibilities of increasing funding.	2014/15: 50% 2015/16: 45% 2016/17: 25% 2017/18: 46% 2018/19: 31%	The first two years in CDM show that the municipality did not generate enough revenue to repay liabilities, as the percentages sat well above 45% margin or sat exactly on the mark for most of the year. The risk of failure to repay is also highest in 2015/15 and 2017/18 because of insufficient generation of operating revenue. 2016/17 and 2018/19 had percentages below the 45% norm, giving the municipality more room to increase debt funding (current and current liabilities). However, this is CDM's fluctuating position requires monitoring to ensure stability and consistency before more loans are taken
<b>Capital charges to OPEX</b>  Formula: capital interest and principal/ operating expense X100	It measures the percentage of capital charges making up operating expenses. The normal rate is from 0-0,1%	2014/15: 0% 2015/16: 0% 2016/17: 0.1% 2017/18: 1.1% 2018/19: 0.1%	The percentages over the five years are within the normal range of 0 to 0.1%, which means that the municipality can pay its interest and principal payments. There is no risk of default in repayments. The capital charges are a small proportion of OPEX. Additionally, the municipality can access other loans for expansion. CDM rarely borrows to fund OPEX. This is advantageous since OPEX does not to returns and economic development.
<b>Net operating surplus margin</b>  Formula: (Total operating revenue- expenses)/total operating revenue X100	This ratio assesses the extent to which municipalities generate operating surpluses. A percentage above 0 means the excess surplus. Less than 0% means the municipal is performing at a deficit.	2014/15: 5% 2015/16: 9% 2016/17: 10% 2017/18: 10% 2018/19: 11%	At the current rate, the municipality has an operating surplus that can be used for other activities such as capital payments. Most of the operating revenue comes from government transfers, which are the reason for the surplus.
<b>Net surplus/ deficit water</b>  formula: (Total water revenue-total water expenditure)/total water revenue X100%	The ratio measures the surplus/deficit in water services delivery. Water provision is the major service rendered by the municipality; hence its contribution is important. The normal range is 0% and above 0% are positive.	2014/15: 52% 2015/16: 41% 2016/17: 70% 2017/18: 33% 2018/19: 32%	The cost recovery for water has been positive with percentages above one. There is sustainable water provision. However, there has been a decline in cost recovery from 2017 to 2019, but levels are still above 0% or above, indicating costs are recoverable and water service delivery is sustainable. Below zero means there is an unsustainable provision of water, and the municipality is operating at a loss. CDM does not have a below 0%.
<b>Revenue growth %</b>  Formula: Total revenue-previous total revenue/previous total revenue X 100	This ratio measures revenue growth and determines whether expenditure is payable by increased revenue bases	2014/15: 2% 2015/16: 8% 2016/17: 13% 2017/18: -3% 2018/19: 46%	Revenue has experienced minimal growth with extensive growth in 2018/19. 2017/18 shows poor revenue collection in the municipality. The revenue growth in CDM has been low, but a large growth percentage is noted in 2018/19.

<p><b>Creditor's systems efficiency</b></p> <p>Formula: trade creditors/credit purchases (operating and capital) x 100</p>	<p>It indicates the percentage for trade creditors to pay back. Ratios below 50% reflect high efficiency, while those below 50% reflect low efficiency in managing creditors.</p>	<p>2014/15: 41% 2015/16: 34% 2016/17: 81% 2017/18: 49% 2018/19: 100%</p>	<p>CDM has had good creditor repayments from 2014 to 2015. 2016/17 to 2018/19 percentages are above 50 %, indicating poor repayment policies. The credit systems have low efficiency. This, in turn, will compromise the working capital in the municipality.</p>
<p><b>Circular 68 expenditure</b></p> <p>Formula: Irregular, fruitless, wasteful, and unauthorised expenditure/ total operating expenditure x 100</p>	<p>This measures the percentage of irregular, fruitless, wasteful, and unauthorised in OPEX</p> <p>0% is the norm. Amounts above 0% must be investigated.</p>	<p>2014/15: -90% 2015/16: -91% 2016/17: -100% 2017/18: -100% 2018/19: -100%</p>	<p>Percentages are below zero, showing that performance has improved over the five years, showing steady decreases in the circular 68 expenses. The expenses are well below 0 %. However, the largest unproductive expenditure was in the 2014-15 period. The percentage may prove to be below 0%, but when converted to rand, amounts are high and still need investigation.</p>
<p><b>Remuneration as a percentage of Total operating expenditure</b></p>	<p>The total remuneration of employees and councillors to operating expenses. The normal range is 25% to 40 %</p>	<p>2014/15: 45% 2015/16: 55% 2016/17: 40% 2017/18: 42% 2018/19: 45%</p>	<p>Amounts exceeding 40% range. This has made remuneration one of the highest costs in the municipalities. Amounts above 40% can be ascribed to overstatement, fictitious employment, duplication of tasks, corruption, and overstaffing. These are experienced in 2015/16, 2017/18 and 2018/19. Powers and functions need to be analysed to prevent distortions. Only in 2016/17 are costs maintained at the margin of 40%.</p>
<p><b>Contracted services as a percentage of total operating expenditure</b></p> <p>Formula: contracted services/total operating expenditure x100</p>	<p>This ratio measures municipality resources allocated to contracted services. The normal range is 2-5%.</p>	<p>2014/15: 2% 2015/16: 2% 2016/17: 2% 2017/18: 2% 2018/19: 2%</p>	<p>The municipality has a ratio within the normal limit. It does not suffer from the disadvantages of outsourcing. CDM balances service provision and contracted services well. This reduces the risk of CDM failing to build capacity and expertise since it has a low reliance on external contractors is low in CDM.</p>
<p><b>CAPEX budget implementation indicator</b></p> <p>Formula: actual capital expenditure/budgeted capital expenditure X100</p>	<p>This indicator measures the actual CAPEX against budgeted CAPEX to find variances in the application. The optimal range is 95-100%. Variance below 95% indicates discrepancies in budget control as well as Capacity challenges. Amounts above 100 also have negative connotations.</p>	<p>2014/15: 128% 2015/16: 127% 2016/17: 89% 2017/18: 131%</p>	<p>Underspending relates to poor management, and cash flow difficulties. CDM reflects variances over the 100% acceptable range, which shows that poor financial management mostly occurs from 2014-2015 to 2017/18. 2016/17 showed 89%, reflecting poor budget discipline and indicating possible supply chain failures. Underspending indicates the non-implementation of projects and cash flow problems.</p>
<p><b>Services charges and property rates revenue budget</b></p>	<p>It measures budgeted amounts against actual amounts. Actual revenue received from billing and property rates vs</p>	<p>2014/15: 120 2015/16: 157% 2016/17:</p>	<p>All service delivery and property rates are above the 95-100% mark. Property rates revenues are always zero in CDM in the five years. Additionally, actual service charges revenue is always extensively different from</p>

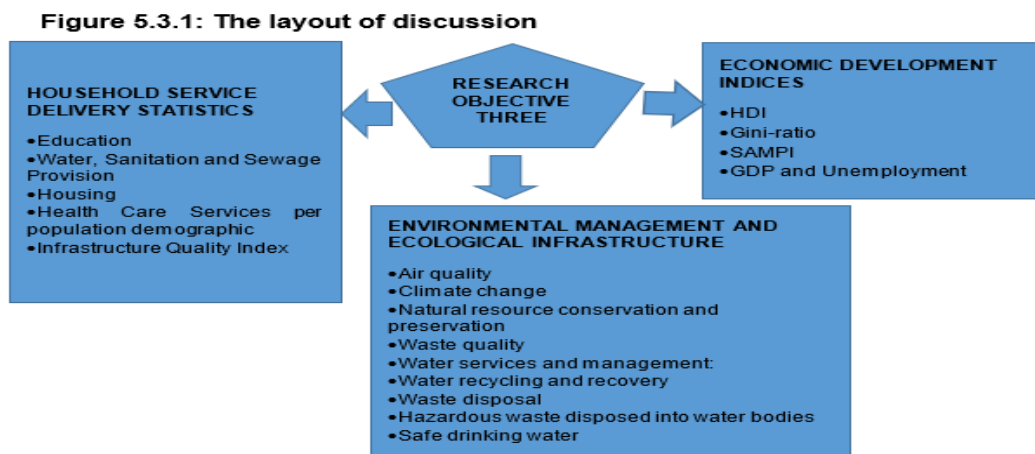
<b>implementation indicator</b>	budgeted revenue from billing services and property rates The acceptable range lies between 95% and 100%	145 2017/18: 146 2018/19: 117	budgeted amounts. This occurs when there is the intentional manipulation of forecasted figures, so management always reports positive performance (budget slacking), or poor forecasting processes done out of incompetence or negligence. This excess does not indicate positive or overperformance.
<b>Operating revenue/ expenditure budget implementation indicator</b>  Formula: $\text{Actual operating revenue} / \text{budgeted revenue} \times 100$	Measures relation between actual operating revenue received for budget operating revenue. Normal range 95-100%.	2014/15: 100% 2015/16: 89% 2016/17: 123% 2017/18: 79% 2018/19: 79%	2014/15 is within an acceptable range, showing a good relationship between budget and actual revenue patterns. 2015/16 and 2017-19 are below the normal range. This means that actual revenue is below the budgeted revenue levels. This is a negative variance. 2016/17 shows a range above the acceptable 100% mark. 123% means actual exceeds budgeted, and this overestimation could be because of bad budgeting procedures that understated budgeted revenue. Managers may be involved in budget slacking through understating expenditure.

Source: Adapted from MFMA circular 71 and CDM website (2020)

### 5.3 RESEARCH OBJECTIVE THREE

*To assess the triple bottom line outcomes arising from the budgetary metrics and OBLM application in Capricorn District Municipality.*

The administration of the OBLM and budget has led to social, economic, and environmental outcomes. These outcomes are presented in three divisions: household service delivery statistics, economic development indices and environmental sustainability. Raw data is obtained from the Capricorn district website, newspaper articles, and published journals. The layout of the results and findings for research objective three is shown in Figure 5.3.1 below:



Source: Researcher's construction

#### 5.3.1. Household Service Delivery Statistics

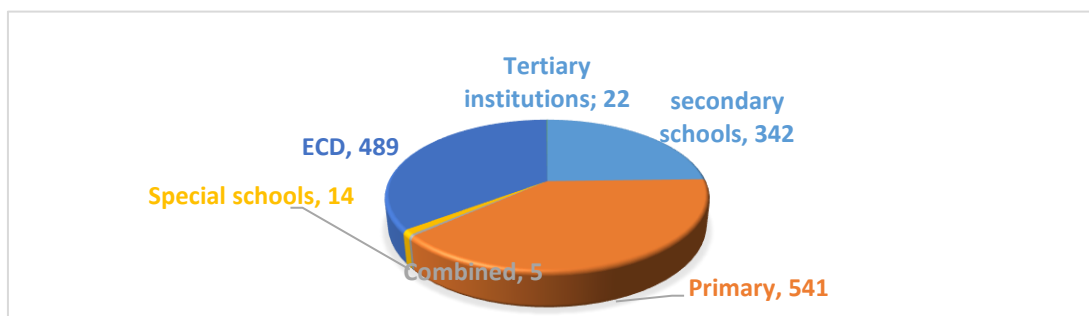
CDM is mandated by legislation to provide civil rights to its citizens. This section discusses the household services delivered to the community by CDM. The study will refer to education, water, sanitation and sewage provision, health care and infrastructure quality index.

##### Education

CDM's population consists of 29% matriculants, 12% who never attended school and 11% with higher education (CDM, 2019). Excel is used to construct a pie chart showing the educational infrastructure available in CDM in 2016.

Steccolini (2019) previously mentions South Africa's 13, 5 education years closer to China's 13, 9 years, which are all positive except that CDM has few learning institutions, limiting access to education. The statistics provided by CDM relate to government schools, not private schools. Maponga (2016) reports increased protests by parents demanding more schools in CDM. Figure 5.3.2 below shows the educational infrastructure in CDM (CDM, 2019). South Africa and CDM have low socio-economic sustainability because of a low level of educated and employable workforce (World Bank, 2018; Steccolini, 2019).

**Figure 5.3.2: Educational infrastructure in CDM**

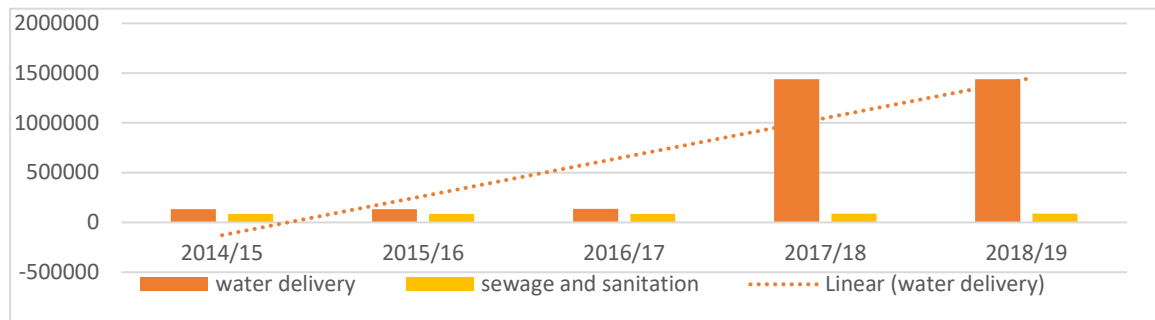


Source: Adapted from CDM website (2019)

### **Water, Sanitation and Sewage Provision**

Raw data on fluctuations in water delivery, sanitation and sewage services are obtained from STATSSA and CDM websites. The data is analysed and cross-referenced to published newspaper articles to get a third opinion on service delivery. Figure 5.3.3 below analyses data on water and sewage systems in CDM from 2014 to 2019.

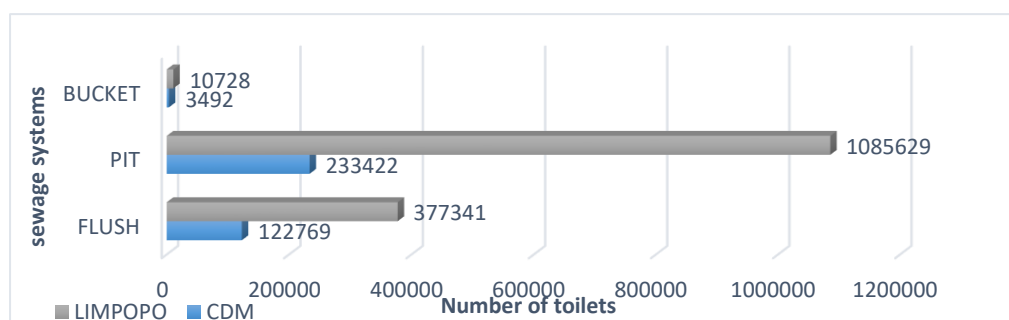
**Figure 5.3.3: Water, sanitation, and sewage provision in CDM**



Source: Adapted from CDM website (2020)

The graph shows stagnancy in sewage and sanitation services delivery from 2014 to 2019. The sewage and sanitation services remained low, and this is confirmed by journalists Ramathwala (2019), Mahlakoana (2016), and Matlala (2019), who communicated the citizen’s disgruntlement. Fihlani (2018) reported deaths and injuries associated with the use of pit latrines in schools, which led to NGO-assisted strikes for better sanitation. Maponya (2021) affirms that about 4 000 schools had poor sanitation systems. Only 30% of the toilets in CDM were flush toilets, while 70% consisted of pit latrines and other types. Sanitation backlogs remain at 66, 8%, the highest being in Blouberg, Lepelle-Nkumpi, and Molemole. STATSSA (2018) affirms that Limpopo has the poorest levels of sanitation improvements, rated at 58%. CDM’s profile on sanitation and sewage system is consistent with rural Limpopo, as depicted in Figure 5.3.4.

**Figure 5.3.4: Comparison of CDM and Limpopo’s Sanitation Services**



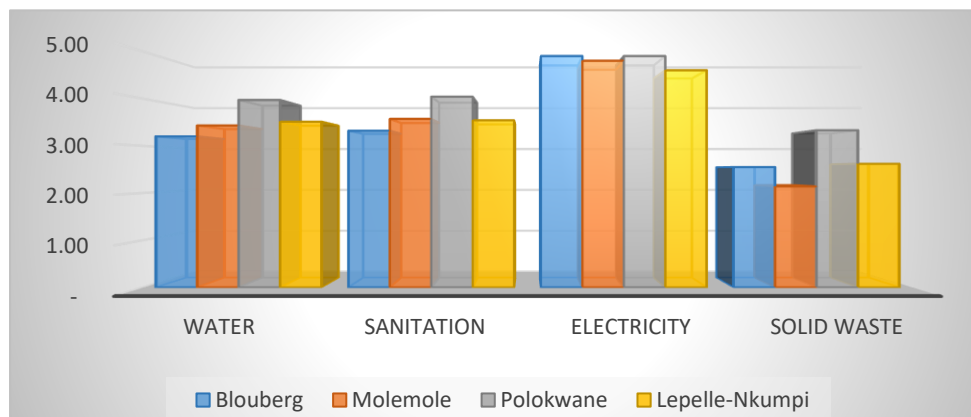
Source: Adapted from CDM website (2020)

Figure 5.3.4 illustrates a linear increase in water delivery services from the later part of 2017 to 2019. While water provision increased, CDM reports it has had 5 921 water stoppages with an average stoppage of water delivery of 90 times per month and an average response time of 30 hours in 2018/19 (CDM IDP, 2021). The water delivery increased but was plagued with inefficiencies and inconveniences, leading to disgruntled stakeholder protests (Matlala, 2019).

### Infrastructure Quality Index

The infrastructure quality index shows the quality and level of capital development in CDM ranked from one to five. The higher the index, the more the level of development and investment and economic growth. CDM’s infrastructure is ranked from 3 to 4 regarding electricity and water, while the lowest rankings are sanitation and solid waste disposal. The highest indexes are in Polokwane and Lepelle-Nkumpi, while Blouberg and Molemole lag in development. Figure 5.3.5 below shows the Infrastructure Quality Index distributed across CDM’s local municipalities.

**Figure 5.3.5: Infrastructure Quality Index**



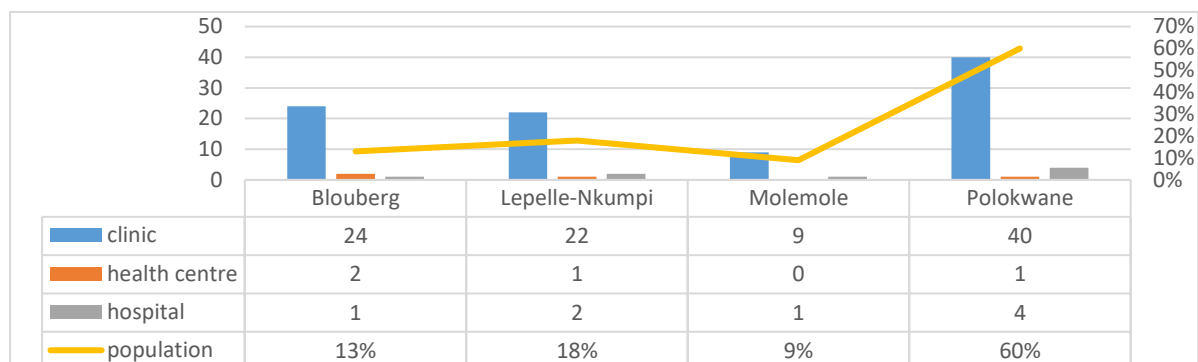
Source: Adapted from STATSSA community survey 2016



## Health Care Services per population demographic

The health care services are distributed using clinics, healthcare centres and hospitals. An analysis shows that CDM distributed more health care services to areas with high populations, i.e., Polokwane having 60% of CDM's population, has 40 clinics, followed by Blouberg and Lepelle-Nkumpi with the second-highest have a higher number of health care services. The department of health stated the outcomes of these health care services mentioning the top causes of death in CDM as HIV, TB, and lower respiratory deaths. HIV infections increased despite the 90:90:90 strategy to eliminate AIDS by 2030 (90% of people tested; 90% on anti-retroviral; 90% with suppressed virological suppression) (Capricorn Profile, 2018). Death due to Diarrhoea was 21,2 %, preterm birth was 8,81%, and HIV deaths were 11,3%. (Capricorn Profile, 2018). Figure 5.3.6 below shows the distribution of health services in CDM.

**Figure 5.3.6: Distribution of health services**



Source: adapted from CDM IDP (2019)

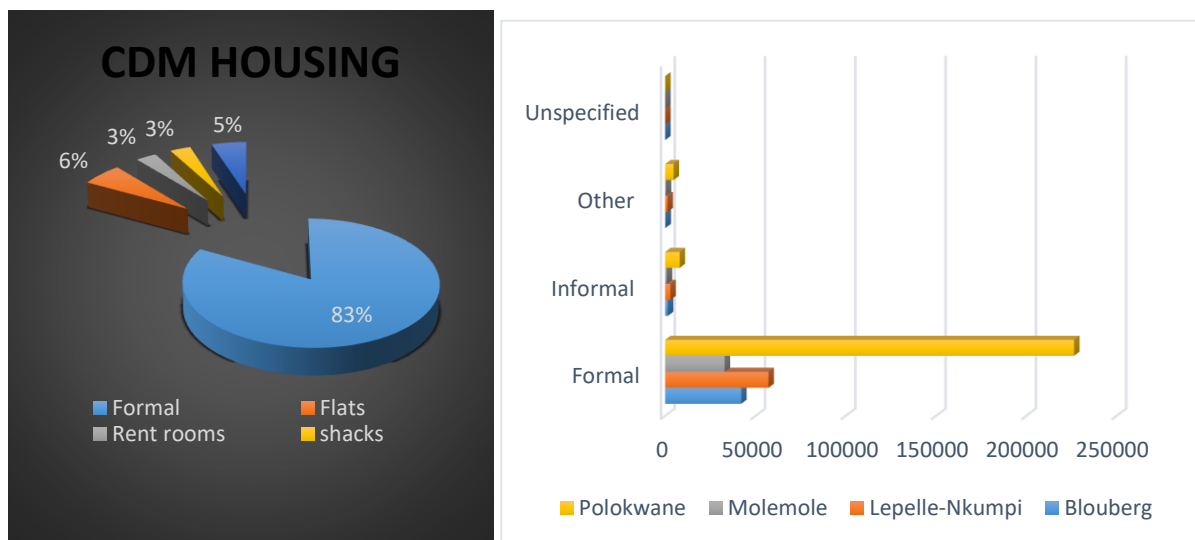
## Housing Facilities

CDM is guided by the National Development Plan (NDP) and the Rural Development Plan (RDP), which seek to subsidise housing and provide RDPs. Citizens have a civil right to shelter. According to Marutlulle (2021), the ramifications of poor housing delivery led to criminality, violence-xenophobic attacks, protests, corruption, shack fires, health challenges and informal settlements. The housing issue, therefore, had to be settled. During the NDP and RDP implementation, corruption led to officials selling RDPs while some housing projects were abandoned. Incomplete structures made of cheap material could not last through the rainy season (Marutlulle, 2021).

Some citizens got more than one RDP and leased them out to foreigners (Modiba, 2017). Officially, the minister surrendered 200 houses to Disteneng residents while more than 10 000 RDPs were under construction (Matlala, 2017). According to CDM IDP (2019), the municipality provided a total of 50 489 RDP houses to citizens.

This is a small fraction of the 3.2 million nationwide. Some citizens managed to build their own houses. Figure 5.3.7a below shows the housing services in CDM holistically, with 83% living in formal dwellings. However, of this 83%, most residents live in Polokwane. There is a huge inequality in terms of the distribution of shelter in CDM, as depicted in Figure 5.3.7b. Polokwane has the highest number of formal dwellings housing services, followed by Lepelle-Nkumpi, while the other Molemole and Blouberg local municipalities lag in this development.

**Figure 5.3.7: A CDM Housing Figure 5.3.7b Local Municipality Housing**



Source: Adapted from CDM website (2019)

### CDM failures in Service Delivery

The service delivery failings highlighted by MPAC and the Annual oversight report on the CDM website from 2014 to 2019 revealed that the municipality had poor project monitoring and outcomes. The municipality failed to maintain ageing infrastructure but continued to build more projects that were not maintained. The municipality failed to implement projects, e.g., electrification of boreholes and residents.

White elephant structures led to a loss of money, including unutilised sports complexes and the Mampa Tourism centre which was frequently refurbished. Elevated Steel tanks were built, yet they did not provide water to the community.

Project management failed as project stoppages were made, and the municipality failed to follow up on contractors. Abandoned sites and incorrectly placed drainages posed a danger to residents. Projects that had allegedly been completed did not yield desired outcomes, for instance, the Essorinca and Eldorado water projects that failed to provide water. The municipality also failed to respond to calls on breakdowns, as well as theft of water systems and transformers. Errors in project documentation were found as municipal managers and accounting officers failed to monitor and control service delivery despite having the OBLM tool. High vacancies were also noted in the infrastructural development department. Table 5.3.1 below shows some of the project failures per local municipality in CDM according to CDM and MPAC’s oversight reports from 2014 to 2019:

**Table 5.3.1: Service Delivery Failures in CDM**

<b>Polokwane</b>	<ul style="list-style-type: none"> <li>•Poor drainage systems and non-functional hydrants</li> <li>•Poor maintenance of sewage systems</li> <li>•Abandoned service delivery projects and ageing infrastructure</li> <li>•Water stoppages and non-communication with the community</li> <li>•Community members vandalise water systems infrastructure to try and get water</li> <li>•Non-grading of streets</li> </ul>
<b>Lepelle-Nkumpi</b>	<ul style="list-style-type: none"> <li>•Electrification of residences promised in 2017 was not done</li> <li>•Delayed commencement of announced projects</li> <li>•Municipality donated JoJo tanks to the community but had not filled them</li> <li>•An incomplete project worth R2,8 million was abandoned at Mapatjakeng</li> <li>•Poor quality services, e.g., Water drainages, were channelled to houses leading to flooding</li> <li>•Pipes had no water</li> <li>•No project monitoring by officials</li> <li>•No progress with tarring roads, e.g., Rafiri</li> <li>•The absence of speed humps near schools led to the deaths of 5 children</li> </ul>
<b>Molemole</b>	<ul style="list-style-type: none"> <li>•Managers did not respond to community calls</li> <li>•Delayed electrification of boreholes and purification plants, project delays in time</li> </ul>

	<ul style="list-style-type: none"> <li>•The concrete Reservoir was not maintained and wasted water</li> <li>•Matseke section did not receive water and electricity because it was not classified as a residential zone but a farming zone</li> </ul>
<b>Blouberg</b>	<ul style="list-style-type: none"> <li>•Mydarling section spent three years without water</li> <li>•BaMmaMohlale boreholes dried up, and the municipality had not refurbished them</li> <li>•Ward 2,3,7 and 14 complained that completed water projects were of poor quality and their pump boosters were non-functional</li> <li>•No road lanes or markings</li> <li>•Mampote water projects and drainage systems projects were left incomplete</li> <li>•Failure to maintain boreholes</li> </ul>

Source: Adapted from MPAC Annual Oversight Report (2020)

CDM has received SALGA Municipal Audit awards for five years for utilising all the municipal infrastructural grants (MIG) (SALGA, 2019), which is alarming as there are reports on abandoned projects, unmaintained old infrastructure and white elephants being constructed in the district.

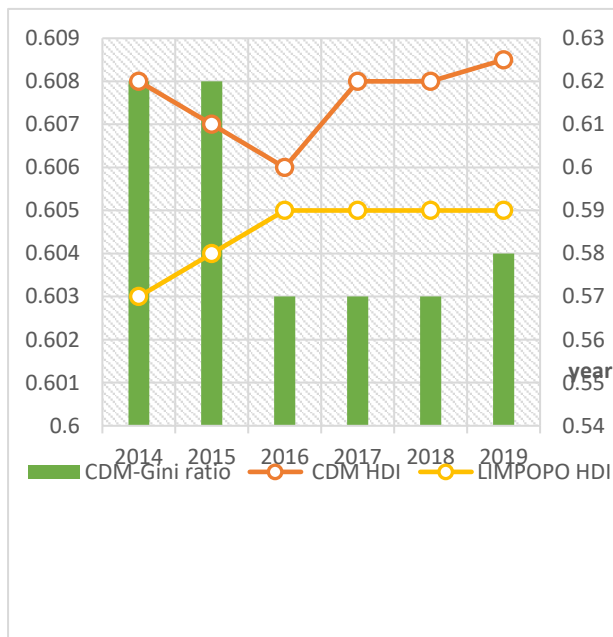
### **5.3.2. Economic Development Indices**

This section discusses the local economic development in CDM. Economic development indices are used to gauge this economic development. The Human Development Index (HDI), Gini ratio, Gross Domestic Product (GDP), unemployment and Multidimensional poverty (SAMPI) are used.

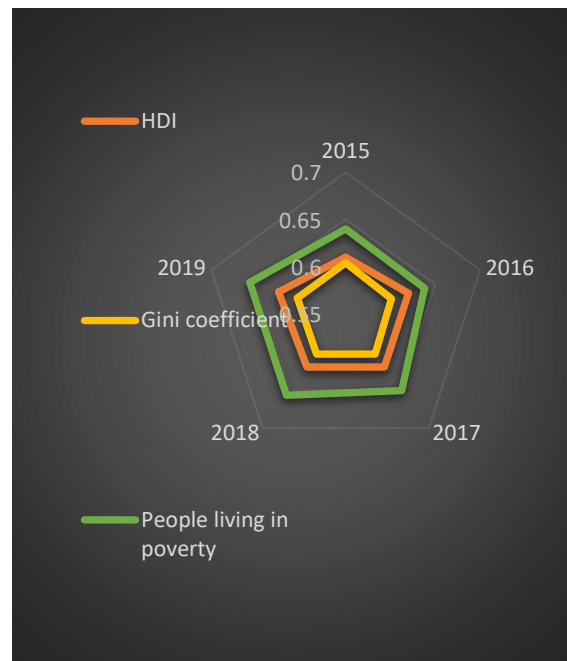
#### **Limpopo vs CDM: Human Development Index and Gini Ratio**

The CDM's Human Development Index (HDI), Gini ratio and poverty levels over five years are in Figure 5.3.8. Figure 5.3.8a shows CDM's Gini ratio and HDI relative to Limpopo's over five years. Figure 5.3.8b shows the HDI, Gini coefficient and people living in poverty in CDM from 2014 to 2019.

**Figure 5.3.8a LIMPOPO vs CDM**



**Figure 5.3.8b Radar graph**



Source: Adapted from IHS Markit (2019)

The combo graph Figure 5.3.8a shows CDM's HDI (signifying living standards) is well above Limpopo's HDI levels, indicating that citizens in CDM have better living standards than in all other districts. In 2015 CDM decreased its Gini ratio by 0, 01 while HDI fell to 0, 606. The Gini ratio (inequalities) in CDM decreased from 2015 to 2018 and increased sharply in 2019. All these changes occurred while Limpopo's HDI remained stagnant from 2016 to 2018.

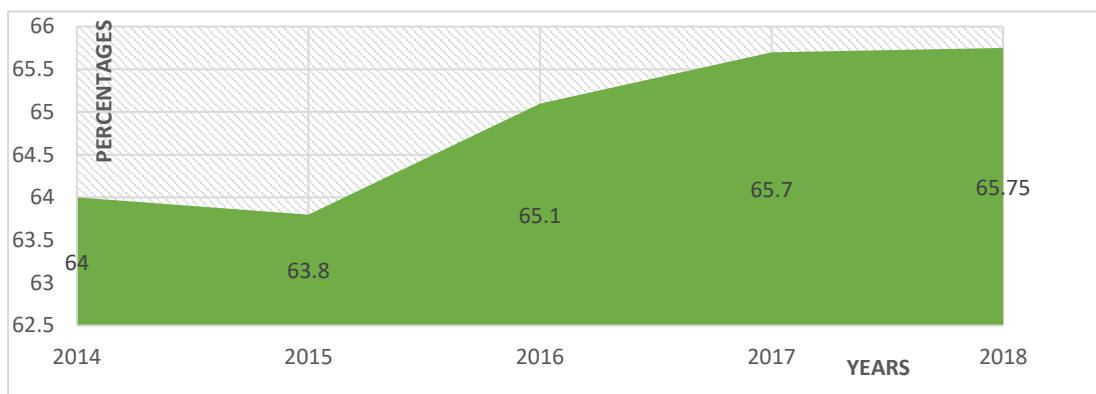
These HDI and Gini ratio changes are also depicted in the radar graph Figure 5.3.8b, corresponding to findings with increases in poverty.

The radar graph shows that poverty decreased when the Gini ratio in 2016/17 while HDI increased. In 2018/19, the Gini ratio increased, and so also did poverty levels. In 2019 CDM reportedly had rising Gini ratios meaning the unequal distribution of income and welfare and increasing numbers of people living in poverty from 2016 to 2019.

## South African Multidimensional Poverty Index (SAMPI)

Figure 5.3.9 below is a graph depicting an increase in multiple deprivations in CDM over five years. According to the census, CDM's population had a dependency ratio of 65%, meaning only 25 % were independent (CDM, 2019). These statistics warranted an investigation into CDM's SAMPI levels.

**Figure 5.3.9: SAMPI trends in CDM**



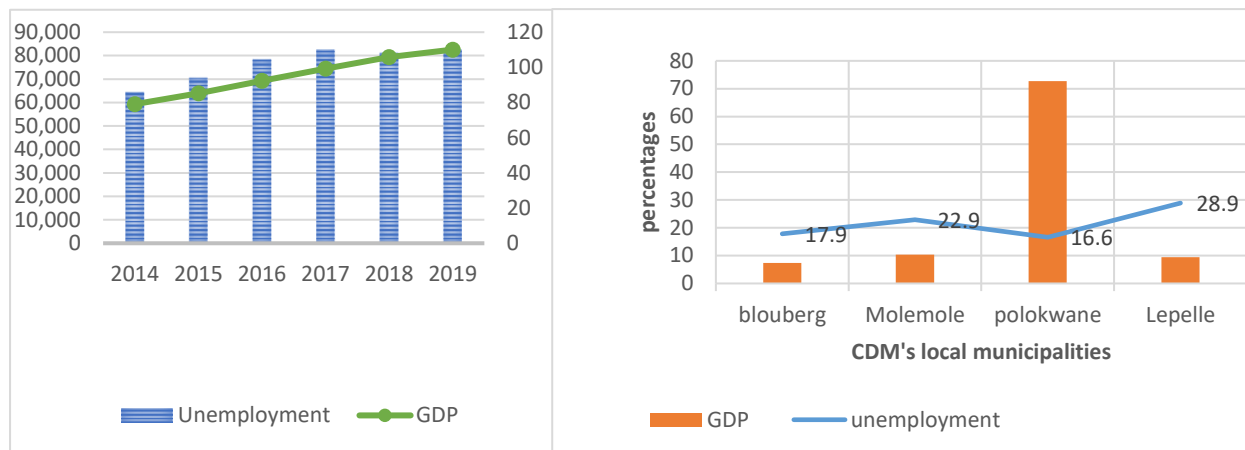
Source: Adapted from CDM website

A decline in multidimensional poverty was noted in 2015, followed by a steep line indicating a rapid increase in poverty through 2016, 2017, and 2018. This is consistent with rising unemployment reported in 2018 at the 30.8% level (STATSSA, 2019). CDM's socio-economic welfare lags with a SAMPI rate of 8,5% higher than the rest of the nation, at a 7% rating. On an international scale, South Africa has the highest poverty levels and urbanisation compared to the USA, Brazil, and China (World Bank Group, 2018; STATS SA, 2017).

## GDP and unemployment in CDM

The relationship between unemployment and GDP are macro-economic indicators used to determine the state of the economy as depicted in Figure 5.3.10. Figure 5.3.10a below illustrates this relationship between GDP and unemployment in CDM over five years, while Figure 5.3.10b shows the relationship between GDP and unemployment in CDM's local municipalities in 2018.

**Figure 5.3.10a: CDM Overview Figure 5.3.10b Overview of Local Municipality**



Source: Adapted from HIS Global Insight 2020

Figure 5.3.10 shows that as unemployment increases, GDP steadily increases in CDM from 2014 to 2017. GDP grows even when unemployment slows down and decreases in 2018/19. This pattern resembles the relationship Okun’s law described. Figure 5.3.10 b shows the relationship between GDP and unemployment in local municipalities in 2018. Polokwane has the lowest unemployment and highest GDP. Lepelle-Nkumpi, Molemole, and Blouberg have high unemployment and lower GDP, making Polokwane the largest contributor to CDM's total GDP.

### 5.3.3. Environmental Indicators

This section discusses the environmental sustainability initiatives in CDM regarding air quality, climate change, natural resource conservation and preservation, waste quality, water services and management, water recycling and recovery, waste disposal, hazardous waste disposed into water bodies and safe drinking water.

A qualitative discussion of information provided in CDM’s documentation over five years is given. Environmental issues impact the socio-economic wellbeing of community members in a municipality and therefore must be managed.

The researcher found that most municipal information on environmental sustainability is qualitatively presented, and maps are provided to show preservation and conservative efforts made are provided by the South African Protected Areas Database (SAPAD) and South African Conservation Areas Database (SACAD). Table 5.3.2 below discusses the environmental outcomes of CDM.

**Table 5.3.2: Environmental outcomes CDM**

<p><b>Project Air quality</b></p>	<p>The results from this outcome allude to budgetary indiscipline/ failed budget estimation or budget slacking as saving is made on budgets. IDP reports clean air and initiatives to improve air quality, but there is no significant indicator. Outcomes are not mentioned. Fire disasters and informal refuse burning are cited as primary causes of decreased air quality. Air quality projections and results are not comprehensive. Air quality is a critical component of municipal standards that increases tourism. Balancing low-cost equipment and ensuring that socio-economic development continues is critical. CDM's main contributors to pollution are transport, domestic uses, and factories. No further information is presented on greenhouse gases (GHGs), sulphur dioxide, particulate matter, volatile organic compounds, secondary pollutants, and nitrogen oxide, which are mentioned but with no quantitative references that can be compared over the five years. However, air pollution is a 24/7 priority and has a low to medium risk ranking in 2018/19, but no outcomes are mentioned besides improved air quality.</p>
<p><b>Climate changes: storms, increasing temperatures- droughts, bushfires</b></p>	<p>A list of the risks and long-term outcomes/impact of climate changes, e.g., droughts, floods, storms, and crops, is listed without indicators, with comments about increases or decreases. According to Veld fires speech Department of Environment and Agriculture (DEA) (2016), intense drought, wildfires, and storms have occurred in Limpopo and CDM. In response to these changes, climate resistance livestock and vegetation are introduced under the National adaption. In 2018/19, CDM placed fire risk under medium to high, being ranked as 4<sup>th</sup> out of 47 priorities while drought is ranked 3<sup>rd</sup>. CDM has six fire stations in each municipality and 3 in Polokwane to prevent damage. Inadequate funding remains a problem. CDM reports bureaucracy in maintaining fire response equipment and a lack of trained personnel. These fires caused soil erosion and landslides that increased mortality rates and decreased agricultural production. Hydro-meteorological hazards are in the top ten priorities. Extreme temperatures present a medium risk to CDM. There are no quantitative measures comparable over the five years but qualitative references to increased/decreased levels of climate change. Quantitative indicators are absent that could be used to determine the degree of deforestation, renewable energy, overgrazing, erosion, carbon emission/budgets and sectorial emission.</p>
<p><b>Energy Master plan</b></p>	<p>This includes plans to use renewable energy, including biogas, solar energy, nuclear, hydropower, and a decrease in the use of non-renewable energy from fossil fuels. There is no quantitative information except detailed plans and recommendations, but no actual results planted.</p>
<p><b>Natural resources conservation and preservation</b></p>	<p>CDM targets include four reports and 800 trees planted. The trees were planted, but the money was not used. Therefore, a R535 000 saving is noted. There appears to be poor budgetary planning and design, which leads to large variances. Also, this underspending indicates poor quality implementation well below the</p>



(Biodiversity management)	<p>budget. Deforestation is ranked 22<sup>nd</sup> in CDM's priorities from medium to low-risk Issues of poor budgetary planning are indicated. CDM consists of 0, 79% gullies, 10, 5% dry fields, 0, 43% plantations and natural spaces making up 72, 5%. Environmental degradation is ranked 18 and 20<sup>th</sup> in terms of soil erosion and landslides.</p> <p>Soil erosion: landfill efforts, mudslides, and desertification have a high to low risk in CDM. Soil erosion because of afforestation would result in landslides and poor agricultural produce. Poor land management would lead to gullies and unproductivity. Droughts would eventually follow, leading to poor water supply and food security, new plant systems, loss of existing plants used for eco-friendly and agro-processing industries. Biodiversity management is important as the risk of human and animal health and disease spread is ranked 9<sup>th</sup>, and 10<sup>th</sup> has a high to medium level risk. Conservative efforts resulted in protected areas in CDM, according to SAPAD including 19 protected private nature reserves and four national reserves.</p>
<b>Waste quality</b>	<p>CDM had a target set to acquire 20 waste equipment units, but this target was not achieved. The municipality failed to manage the performance of contracted service providers. CDM has been impacted by mining and agriculture, which form the backbone of CDM GDP. This led to decreased water quality polluted by pesticides, acid mine drainage, fertilisers, and disposal from waste treatment plants. Additionally, mining and agriculture would lead to low water quality, resulting in a poor water ecology that results in the loss of water habitats and fish for food. Also, Algae would invade, and water polluted because of pesticides and acid mine drainage. Water pollution is ranked 21/47 priorities in CDM. Insufficient water equipment makes the delivery of clean water to households.</p>

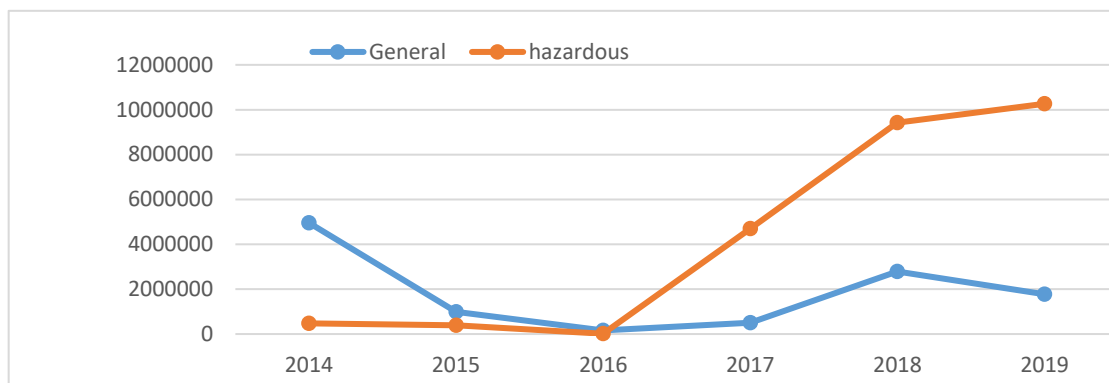
Source: Adapted from SAPAD, SACAD and CDM website (2021)

The South African Waste Information Centre (SAWIC) and this is centre provides the raw data on waste management analysed in this study.

### **Waste recycling and recovery**

Figure 5.3.11 below illustrates CDM recycling initiatives. The municipality increased its recycling and recovery of general waste. The general waste consists of recycled metals, inorganic material, and direct recovery from raw materials (SAWIC, 2019). The hazardous waste recycling initiative in CDM has decreased over the five years.

**Figure 5.3.11: Waste Recycling and Recovery**

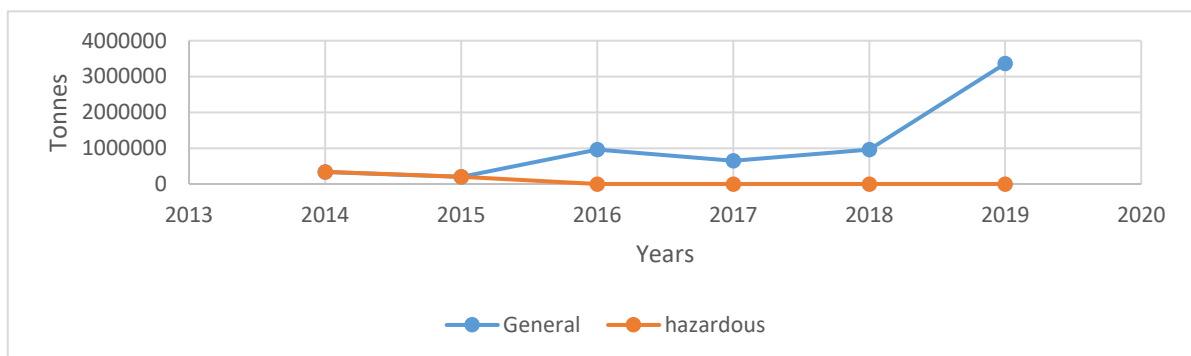


Source: Adapted from South African Waste Information Centre (SAWIC) (2021).

### Waste Disposal

Figure 5.3.12 illustrates CDM’s waste disposal initiative for ‘general’/non-hazardous and hazardous waste disposal on land in engineered, on engineered surfaces, and in surface impounds, e.g., pools, lagoons and ponds have increased. The relationship between general and hazardous waste disposed of in pools, ponds, and lagoons is shown in Figure 5.3.12 below. CDM has decreased the disposal of hazardous waste into natural water bodies whilst the general waste has increased in the last 5 years. This resulted in CDM ranking its land pollution at 15 out of 47 and water pollution at 21 out of 47 which are medium to high-risk ratings (CDM IDP, 2019).

**Figure 5.3.12: Waste Disposal**

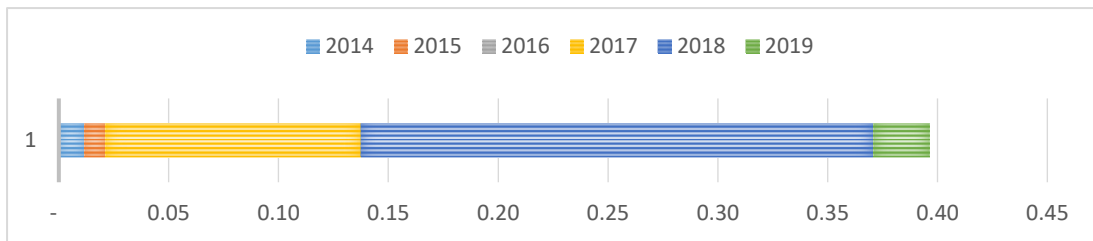


Source: Adapted from South African Waste Information Centre (SAWIC) (2021).

### Hazardous waste disposed into water bodies

Figure 5.3.13 below shows the disposal of hazardous waste into water bodies eventually leaks into the water table and harms residents, decreasing the safe drinking water available to them.

**Figure 5.3.13: Hazardous Waste Disposed into Water Bodies**

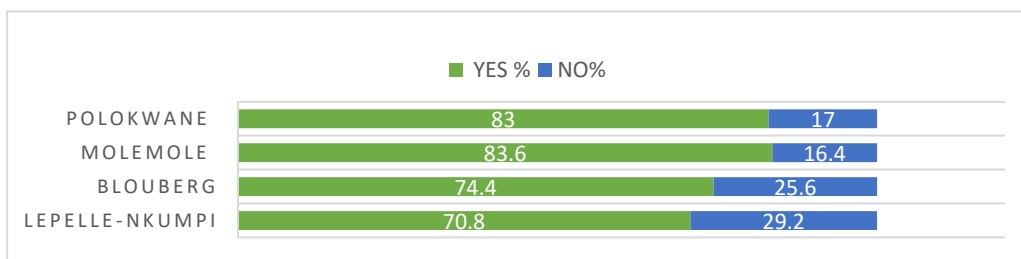


Source: Adapted from SAWIC (2021)

### Access to safe drinking water

Figure 5.3.14 below shows the percentage of safe drinking water in CDM. This is because of mining waste, and disposal of hazardous waste into water bodies that seep into the drainage system. Some purification tanks are non-functional, and reservoirs are leaking (MPAC Annual Oversight report, 2019).

**Figure 5.3.14 Access to safe drinking water**



Source: Adapted from STATSA 2016 community survey

## 5.4 RESEARCH OBJECTIVE FOUR

*To assess the management accounting practices applied in the budgetary metrics and OBLM in Capricorn District Municipality.*

The MAPs assessed in this objective are derived from the CGMA technical competency framework. CGMA technical competency framework highlights seven management accounting practices (MAPs) areas. These are:

- Financial Accounting and Reporting,
- Cost Accounting and Management,
- Business Planning,
- Management Reporting,
- Corporate Finance and Treasury Management,
- Risk Management and Internal Control, and
- Accounting Information Systems (AIS).

These seven areas are subdivided into 32 subgroups with which CDM's administration is assessed. The analysed content is derived from the CDM website, AGSA and the Consolidate state of municipal finances published by Limpopo Provincial Treasury (2020). Therefore, the proficiency levels are determinable from the content analysed and CGMA descriptors. The layout of the results and findings for research objective four is shown in Figure 5.4.1 below:

**Figure 5.4.1: The layout of discussion**



Source: Researcher's construction

Table 5.13 below summarises Proficiency levels and descriptors given by the CGMA framework. In this study, red indicates the basic/foundational levels of MAP application. Orange reflects moderate or intermediate levels. Yellow reflects advanced and green expert levels of MAPS application in CDM.

**Table 5.4.1: Level of proficiency and descriptors**

Rank	Colour	Level	CGMA Description
1	Red	Foundation	Basic financial reporting, business structures, operations
2	Orange	Intermediate	Accurate and legitimacy of reports. Development of new reporting and accounting methods and their impact. Recommendations on reporting and accounting treatment. A moderate application of business operations and implementation of monitoring
3	Yellow	Advanced	Advanced and strong strategic position, intention, and analytical skills. Development of plans for new updating accounting and reporting techniques. Identification of complex transactions, review, and approval.
4	Green	Expert	Strategic vision, unique direction, and success. Selection and oversight of accounting standards and identification of problems and remedies to reporting and accounting issues

Source: Adapted from CGMA technical competency framework (2019)

**Assessment of CDM Against CGMA Technical Competency Framework**

Table 5.4.2 below assesses CDM performance against the CGMA framework

**Figure 5.4.2: CGMA technical competency Framework and CDM practices**

CGMA TECHNICAL COMPETENCY FRAMEWORK					
MAPs	Comments on CDM's operations related to budget and OBLM applications	Proficiency levels			
		1	2	3	4
FINANCIAL ACCOUNTING AND REPORTING					
Transaction accounting and closing processes	CDM exhibits occasions of untimely submissions of reports of some reports, e.g., the S71 report, while others are timeously submitted, e.g., budget cycle recommendations. Bad debt reconciliations are noted. There are non-complex provisions and risk identification processes displayed in the IDP, including disaster and natural resources risk assessment. Compliance with existing standards is required. There is no creation of new accounting and reporting procedures.	1	2	3	4

Professional accounting standards	CDM shows awareness of accounting standards, financial statements, and supporting documents. For instance, annual and multi-year budget forecasts, the layout of statements according to GRAP standardization, and the categorisation of expenses. AGSA (2018) mentions CDM adopts accounting standards better than the other districts. The financial management and governance in CDM are sound and comply with PFMA requirements for standardisation rather than the implementation of new accounting techniques.				
Financial reporting and compliance	Accuracy, completeness, and timely completion are required. mSCOA provides simple and low-cost information extraction methodologies, allowing local government-level customisation. Partial compliance with legislation and GRAP are reported by AGSA (2017). The accuracy and completeness need to be improved. In year management and reporting are consistently applied. The qualified opinion received by CDM contained findings elaborating on the need to improve compliance, accountability, and transparency. Recommendations from internal auditors are not given or disclosed, and no recommendations outside prescribed formats, preparation, and interpretation of reports are to be submitted every month to the National treasury. Failure to do so is deemed poor management and illegal PFMA section 32 and 40(4).				
<b>COST ACCOUNTING AND MANAGEMENT</b>					
Cost accounting	Basic financial requirements and operations stated by the National treasury are seen. Costing methodologies are guided by the National Treasury. Cost control and variance analysis are disclosed. Economically justified expenditure increased, noted by a decrease in irregular fruitless and wasteful expenditure. Virement, rollouts, and adjustments need National treasury approval and cannot be done at the manager's discretion.				
Digital accounting (financial and non-financial)	The digital accounting and recording used are designed and recommended at the national level and passed downwards to districts. CDM website discusses the cost of Information and Communication Technology (ICT), Geographical Information Systems for digital services are used in CDM. Though ICT frameworks were in place, implementation was a problem (AGSA,2015). Virtual council meetings 'Imbizo' was done on radio and published on Facebook. The E-services department, social media, WhatsApp, and e-recruitment aid municipal administration. National System of Innovation was introduced though no information on this is published, are basic. Drones are used to photograph infrastructure sight. Mobile applications called SALGA Mobi have been established to report violence and protests (SALGA, 2017).				
Cost management	Supply chain management and billing have basic features used at the national level. The national treasury adopted cost accounting systems to be used with accrual accounting used in the mSCOA Costing Segment, which requires municipalities to meet the minimum requirements. This would result in process costing for standardised service delivery, and job costing for unique projects. Cape Town manages to use the more advanced Activity-based costing method,				

	<p>which is generally not encouraged unless the municipality can deal with its complexities. The need to eliminate inefficiencies and privatise components. Tariffs are not informed by costing methodologies or basic cost recovery. The National Treasury recommends full cost recovery, but the indigent policy allows for situations where under-recovery is experienced. The pro-rata method is used in supply chain management, information technology, and financial services, while the usage or benefit method determines vehicle and labour costs.</p>			
Cost management in the digital ecosystem	<p>Digital ecosystem and organisational strategy are used in the municipality—basic analysis of costs, planning, and managing costs. The job costing used only gives information relevant to decision-making or inform budgeting. Cost-reflective tariffs are fewer as CDM displays basic computer and internet costs.</p>			
<b>BUSINESS PLANNING</b>				
Planning forecasting and budgeting	<p>Translates strategy into financial targets and tactical plans, rewards-based incentives, benchmarking, and trend analysis. AGSA reported that the best-run municipality in Limpopo was CDM and could be used for benchmarking by other municipalities that CDM is the best-run municipality. Variance and trend analysis are done for three-year periods in the annual reports.</p> <p>Budget reporting and annual financial statement formats must meet GRAP requirements. Consistency in reporting transactions for purposes of comparability is advised. Forecasts are made for five-year periods. budget planning is done according to the prescribed format</p>			
CAPEX and investment evaluation	<p>Extensive CAPEX projects are carried out according to national government obligations. CDM does not generate its CAPEX but waits for government transfers. Few investment activities in CDM involve subsidiaries. Limited investment initiatives existed except for the illegal VBS investment.</p>			
CAPEX evaluation and IT digital transformation	<p>Understand the need for IT and apply it in finance. CDM is adopting new technology, including Enterprise resource planning (ERP), Government communications and Information systems (GCIS), and WIFI installation projects, SALGA MOBI.</p>			
<b>MANAGEMENT REPORTING AND ANALYSIS</b>				
Financial analysis	<p>Financial ratios, surplus and loss, and reconciliations</p> <p>Financial ratio calculations in CDM are done for key performance indicators, not the whole list of ratios prescribed by MFMA section 71 and Capricorns Asset Management Policy. The municipal manager does not introduce new ratio analysis procedures but complies with existing policy. Prescribed methods of analysis are used to ensure standardization.</p>			

Management reporting	Accurate, timely data, straightforward reports prescribed by mSCOA, GRAP, and National Treasury. Compliance is preferred over innovation. There is no scope for change as these are standardised (National Treasury, 2018).			
Performance management	Information is collected and analysed on performance management. Using a qualitative assessment tool, this information is linked to the IDP strategy and SDBIP. The tools evaluate whether CDM strategic plans align with Limpopo Provincial Plans and National Development Plans. The Limpopo MEC's IDP credibility and IDP/SDBIP rating findings are also disclosed in CDM. There are no key learning points or performance appraisals discussed.			
Variance analysis	Basic variance analysis is carried out between budgeted and actual expenditure and revenue streams. Variances are also calculated between expected and actual service delivery (CDM, 2019). Reports are reviewed though causes of variances are not discussed. Some negative variances cascade into the next year, with few controlling initiatives noted. Positive variances are noted in some areas of operation. On some occasions, negative variances are minimised.			
Benchmarking	Benchmarking is internal, and there is no indication of external benchmarks. CDM is used as a benchmark for other municipalities in Limpopo (SALGA,2019). CDM is the best performing district, and other municipalities were advised to use it for benchmarking after five years of receiving an unqualified and clean audit (AGSA, 2019).			
Integrated reporting	The municipality integrated reporting having shifted from silo analysis and reporting procedures. Integrated information systems like the mSCOA allow for six segments to be analysed (Limpopo Provincial Treasury, 2019). An annual oversight report in CDM disclosed problems in service delivery (CDM, 2020).			
<b>CORPORATE FINANCE AND TREASURY MANAGEMENT</b>				
Cash management	CDM uses two liquidity ratios prescribed by the MFMA. Its budgeted and actual cash flow statements are disclosed. CDMs have liquidity and solvency problems. Cash problems result from the leakages caused by ever-increasing employee costs and bulk purchases (CDM, 2019).			
Merger and acquisitions	There is limited analysis in this regard. CDM does not disclose any definite mergers and acquisitions of companies but does refer to other investment types such as subsidiaries, joint ventures etc. (CDM,2019).			
Treasury policies and risk management	The National Treasury does this on behalf of CDM, which submits required information for review to the provincial and national treasury. Risk assessment procedures are stipulated by existing policies and tailored to suit district-level concerns. Qualitative risk assessments and disaster management in CDM are displayed. CDM, for example, has six fire stations that cater for the population in case of fire			



	disasters. Moreover, the risk is assessed in terms of high and low priority areas. CDM discloses that it has limited staff and resources to deal with natural disaster risks. Risk management related to high labour turnover, fraud, etc., has not been efficient despite a clear risk management policy in the municipality (CDM, 2019).				
<b>Business evaluation</b>	Their economic valuation of the municipality shows knowledge and compliance with the legislative framework. The administration is compliance-based rather than responsive to market dynamics (CDM, 2019).				
<b>Valuation of intangibles</b>	CDM performs advanced valuations on intangible assets, amortisation, and impairments. Budgeted and actual amounts are disclosed in financial statements and constitute one of the highest costs on the Statements (CDM, 2019; AGSA, 2019)				
<b>Corporate funding</b>	Revenue streams in budgets and annual statements disclosed prospective and actual funding prospects. The budgeted cash flow reveals funding from Cash from financing operations (CDM, 2019). The municipality has not managed to raise funds from donations and public-private partnerships. Low revenue collections have affected the municipality. CDM shows low levels of revenue collection and public donations. Interest obtained from investments is disclosed in the financial statements. Government transfers are the major source of income (SoLGA,2019).				
<b>RISK MANAGEMENT AND INTERNAL CONTROL</b>					
<b>Risk management policies and procedures</b>	The risk management procedures and policies are in existence. CDM holds workshops for capacity building in risk management. More needs to be done. Risk procedures are also disclosed, and risk is qualitatively ranked from low to high, especially regarding climate change, fire disasters, and disaster recovery plans (CDM, 2019).				
<b>Risk identification and assessment</b>	CDM shows areas of high priority associated with socio-economic and environmental sustainability issues, e.g., natural disasters and climate change, risks associated with social development, service delivery, reduced working-age population, urbanisation, inadequate water supply, and infrastructure theft. The likelihood of risks occurring is not calculated, but a qualitative disclosure is given. CDM does not disclose all the possible risks, such as cyber, finance, and employee risks, among others (CDM, 2020)				
<b>Risk response and reporting</b>	Risk responses to fires and natural disasters are disclosed with limited detail. The municipality, however, details shortages in infrastructure and labour as well as contingent liabilities. Mitigation measures for climate risks, financial risks, information security risks, and employee risks are not disclosed nor are responses to these documented (CDM, 2019)				
<b>Internal control</b>	The municipality disclosed the governance issues and internal and external audit findings. Non-compliance with key legislation, PFMA and MFMA resulted in losses, e.g., legislation that disallowed				

	municipalities from investing in a mutual bank was ignored, and corruption and collusion continued (AGSA, 2018). Audit committees and in-year and year-end controlling, and monitoring activities are included. This improved CDM with more stability in senior management positions. Management position vacancies, high suspension rates, incompetency, and deliberate and negligent practices resulted in failing internal control (AGSA, 2015)			
<b>Internal audit</b>	Internal audit systems have assisted CDM in attaining unqualified though, in some instances, the findings came with 30 areas of improvement that have not outsourced its internal audit. There were no internal audits on infrastructural projects, which led to ageing infrastructure and poor repairs and maintenance. Stoppages of service delivery increased. The late Makwetu described how hostility towards internal audits, audit committees and external audits has increased in municipalities (AGSA, 2018)			
<b>Cyber security</b>	CDM discusses cyber security issues in its website news and demonstrates some knowledge and processes of risk identification and response reports on how municipalities are struggling to implement effective information security management systems. AGSA communicated concern and a need for intervention in information security in 2015/16. King Code IV gave municipalities pressure to address Information security management under the ISO/IEC 27000 standards.			
<b>ACCOUNTING INFORMATION SYSTEMS (AIS) ACCOUNTING APPLICATION</b>				
<b>Information systems (IS) environment</b>	The municipality operates various IS systems, including the Vulindlela information system, a government-wide information system that assists managers in complying with PFMA (National Treasury, 2019). In 2016 the Limpopo Treasury allocated R316,2 million to roll out the Enterprise Resource Planning system (ERP). The mSCOA systems operations are also used in CDM's Software, Hardware systems and licences. mSCOA compliance was upgraded throughout the district except in Blouberg and Lepelle-Nkumpi. The financial core system allows six segments to be budgeted, transacted, and reported. The financial systems are linked to the central supplier database (CSD), which should assist in identifying contractors for effective service delivery. The municipalities submitted data strings to the LG portal except for Lepelle-Nkumpi. Maintenance and purchase of Information technology and systems are disclosed though there is no depth of discussion of their effectiveness in administration. The mSCOA Core System is used in Molemole, Polokwane, and Capricorn. Lepelle-Nkumpi could not comply because the SEBATA system vendor contract was terminated (Limpopo Provincial treasury,2019). The Personnel and Salaries administration system called PERSAL, Logistical Information system (LOGIS) and management information system (MIS) and financial management information systems (FMIS) is used (Limpopo Treasury, 2020). AGSA (2020) communicated a need for increased AIS support by districts to their local municipalities.			

<b>Accounting applications</b>	In-depth knowledge of how it must function and data flow. The hiring of qualified IT managers and budgeting for application development is needed. This initiative is not elaborated on the CDM website. The National Treasury mandated the use of the Basic Accounting system (BAS) and Vulindlela in district operation. National Treasury trained municipalities on using mSCOA (AGSA, 2015/16). Accounting officers have generally failed to prioritise IT controls (AGSA, 2015)			
<b>AIS and digital technology</b>	CDM participates in IT acquisition and upgrades. Cloud computing had been introduced. The use of 4G technology was in place. They introduce new technology and show an understanding of its value. Its participation in IT in budgeting has increased.			
<b>Tax accounting, auditing, planning, reconciliation, review, and preparation</b>	Completeness and compliance, internal settlement of tax disputes and queries. CDM has instances of penalties due to failed reconciliation by the CFO and municipal manager, and SARS fines were charged. Disclosures show they understand taxation requirements. An audit committee is operational, and reviews are done according to documentation. Tax is disclosed in budgeted financial statements (CDM, 2019).			

Source: Adapted from CGMA and World Bank checklist (2019)

The results of Table 5.4.2 are observed in Table 5.4.3 below, which shows the frequency of occurrence of each proficiency level:

**Table 5.4.3: Relative Frequency**

Proficiency Levels	Relative Frequency
Foundational	15/32 = 47%
Intermediate	12/32 = 38%
Advanced	5/32 = 16%
Expert	0/32 = 0%

**Source: Adapted from CGMA (2019)**

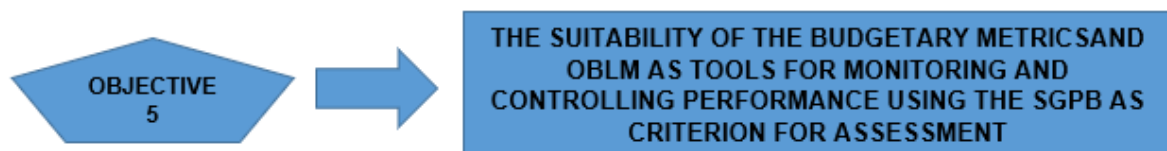
According to this study, CDM mainly applies MAPs at foundational and intermediate levels. MAPs application should be applied at advanced and expert levels to increase efficiency and effectiveness.

## 5.5 RESEARCH OBJECTIVE FIVE

*To determine the suitability of the budgetary metrics and OBLM as tools for monitoring and controlling performance in Capricorn District Municipality.*

This objective assesses the effectiveness of the budgetary metrics and OBLM as tools for monitoring and controlling performance. The criterion for this assessment is the presence of strategic planning controls, governance controls, performance management controls and behavioural controls (SGPB). These controls are formulated by unifying Simon's Lever of Controls (1994), Malmi and Brown (2008) and Langfield-smith's theory (1997). The layout is presented in Figure 5.5.1 below:

**Figure 5.5.1 Layout of Discussion**



Source: Researcher's construction

### **The Suitability of the budgetary Metrics and OBLM as tools for Monitoring and Controlling Performance Using the SGPB As Criterion for Assessment**

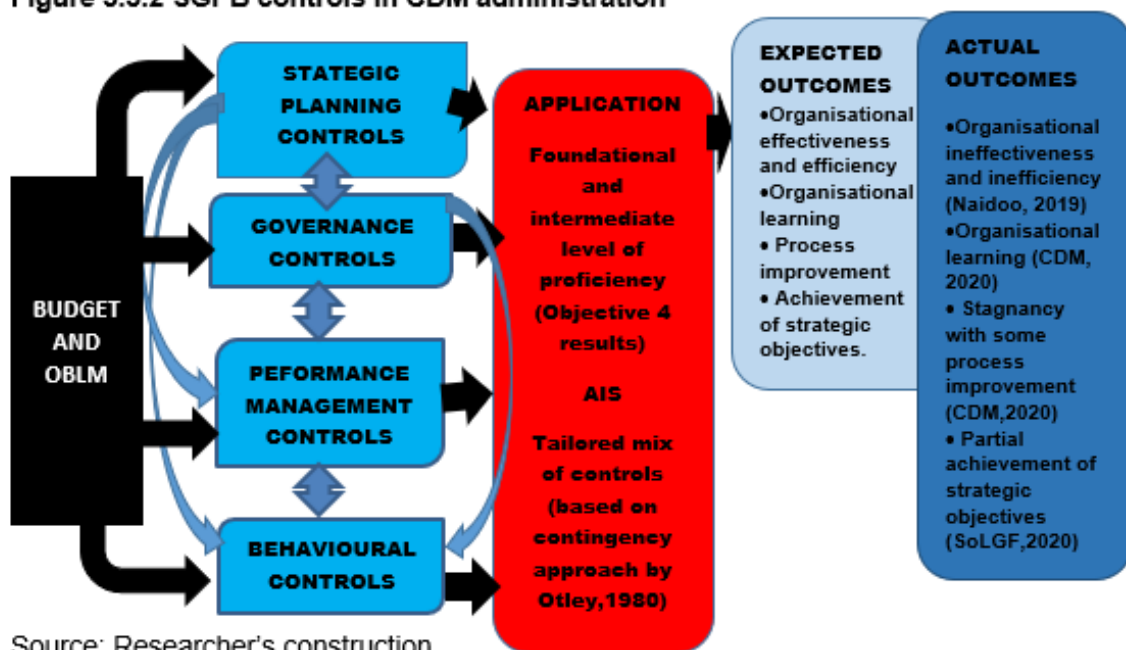
#### **SGPB Controls**

These controls are designed in such a way that they influence each other. For example, strategic planning controls are influenced by governance controls. Both governance and strategic planning controls would influence performance management controls. Behavioural controls are influenced by strategic planning, governance, and performance management controls. These control systems affect each other as the governance, performance management, and behavioural controls can lead to strategic revision.

The application of these controls depends on the needs of an entity. For instance, an entity that leans towards NPM would be expected to have fewer governance controls and more performance management controls. An appropriate balance of these controls would be expected to produce desired outcomes about performance.

Figure 5.5.2 below demonstrates the control systems, application, expected and actual outcomes:

**Figure 5.5.2 SGPB controls in CDM administration**



Source: Researcher's construction

### Determining the Presence of SGPB Controls in the Operations Of CDM

**Strategic planning controls:** there are two levels of strategic planning. One is done at the national level and the other at the district level. CDM's developed its vision and mission different from the national, provincial, and local municipalities. National-level strategic planning includes 2030 Sustainability Development goals, 14 National Development Plan outcomes, and 12 Medium Term Strategic Framework. These are compulsory for CDM to comply with.

**Governance controls:** these controls are both internal and external. CDM establishes its governance controls, but there are those stipulated at the national level, i.e.,

constitution, MFMA, PFMA and other acts, mSCOA, the audit committees, National and Provincial treasury etc.

**Performance management controls:** these include performance evaluation and appraisal, career development, and disciplinary and motivational incentives. This monitoring is done internally and externally. CDM possesses these controls that are outlined in the recruitment policy. SETA and National Treasury train CDM, and CDM also train its staff. Internships and other development opportunities are created to foster organisational learning. Performance is appraised using variance analysis and MFMA S71 ratios. Performance is managed internally with internal audits and by departments like the SALGA, MPAC, DPME, CoGTA, the Treasuries etc. The Feedback and feedforward mechanisms exist within the municipality. Suspensions of fraudulent employees, mayors and municipal managers are documented (Matlala, 2016). Citizens also hold the municipality accountable for performance using the Customer complaints systems. The IDP alignment and SDBIP alignment tools assist CDM's performance concerning strategic goal achievement.

**Behavioural controls:** these controls include belief systems, values, cultures, attitudes, and symbols that impact human behaviour. They are largely informal controls that are not visible in the CDM's documentation. Investigation into these would require interviews which are not part of the scope of the study.

The budgetary metrics and OBLM in CDM possess all the four SGPB controls considered key to this study. Therefore, the analysis seems to demonstrate that the failure to control and monitor performance in CDM is not because of the inappropriateness of the budgetary metrics and OBLM. This finding supports the empirical literature of this study where countries such as China, the USA and some OECD countries tend to experience success in municipal performance using the budgetary metrics and OBLM (Prichard, 2018; Molyneaux and Head, 2019; Wu, 2020). From this study's findings and results, the functionality of the budgetary metrics and OBLM can be ruled out as the root cause of CDM problems.

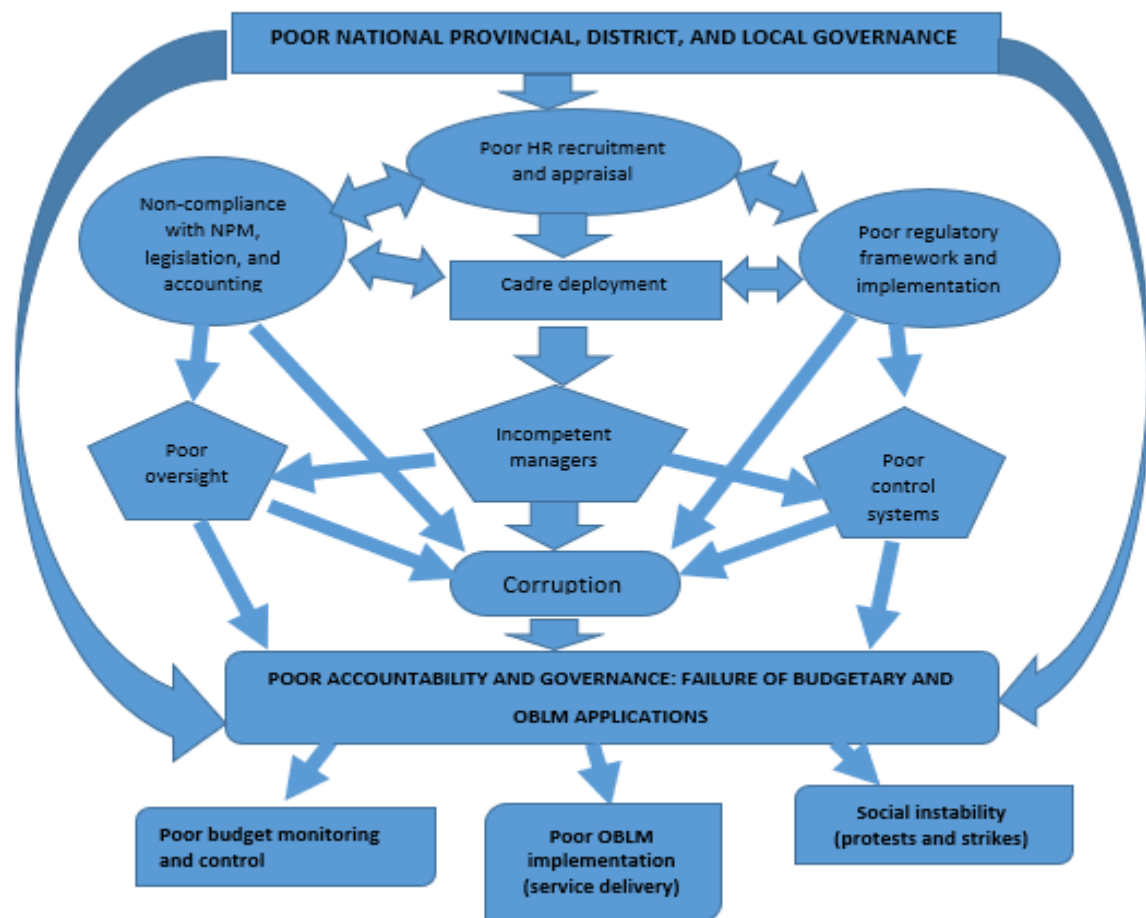
## 5.6 QUALITATIVE ROOT CAUSE ANALYSIS (RCA)

Having ruled out the OBLM and budget as the source of CDM's problem, a holistic root cause analysis for CDM is made to identify the sources of its problems.

This approach logically links all the five objectives of the study: the main issues and their impact on municipal performance in a cause-and-effect relationship.

Poor district, provincial, and national government is the root cause of CDM's problems. This problem led to a breath of negative symptoms. The root problem led to poor framed and implementation of HR recruitment and appraisal policies, for instance, the exemption of management from minimum competency levels. Poor recruitment and appraisal led to continual hiring of cadre deployment. It is also important to note while poor regulatory framework led to poor HR recruitment, failure in compliance with NPM and legislation led to problems of cadre deployment and other poor recruitment strategies. The negative systems feed into each other. These cadres were incompetent, failing to oversee and administer internal controls as they purposefully overlooked NPM, legislation, and accounting policies (AGSA, 2019). Incompetent managers are running municipalities and engaged in corruption. The agency problem could not be mitigated as senior officials colluded and participated in corruption, and no one could hold managers accountable. Poor accountability and governance led to failure in budgetary and OBLM applications. Poor budget control led to poor service delivery, to which stakeholders responded with protests and strikes (social instability) because the municipality failed to redistribute their civil rights equitably. Figure 5.17 below is a flowchart that describes the RCA relevant to CDM as described above.

**Figure 5.5.3 Overview of CDM Using the Root Cause Analysis**



Source: Researcher's construction

## 5.7 CHAPTER SUMMARY

This chapter analyses all four research objectives and discusses the results and findings of each. Unexpected and conflicting findings in each objective are discussed. The viability of the budget and OBLM for controlling and monitoring is proven as they offer strategic planning controls, governance controls, performance management controls and behavioural controls (SGPB). Having eliminated the tools as the cause of maladministration, the chapter delves into a root cause analysis to identify the main cause of CDM's maladministration. This chapter concludes the root cause is poor national, provincial, district and local governance. Chapter 6 discusses the recommendations and conclusions to address the root cause and mitigate the minor/symptomatic problems resulting from the root cause.



## **CHAPTER 6**

### **RECOMMENDATIONS, CONCLUSIONS, AND LIMITATIONS**

#### **6.0 INTRODUCTION**

The chapter presents recommendations and conclusions to the findings and results discussed in Chapter 6. These recommendations are presented per the research objective. The study's limitations are also discussed, together with the identification of areas for further study.

#### **6.1 RECOMMENDATIONS PER RESEARCH OBJECTIVE**

##### **6.1.1 RESEARCH OBJECTIVE 1**

###### **Summary of findings and results**

The findings demonstrated that NPM and the legislation partially influenced the application of the OBLM and budgetary metrics. There were gaps between theory (NPM and legislation) and CDM's actual practices. The gaps discovered in this study need attention at both the national and district level. These differences accounted for poor control and monitoring.

Partial implementation of NPM meant bureaucracy was retained. Bureaucratic budgetary reforms ensured that municipal managers are monitored and controlled. Whilst NPM required a full market economy, partial influence catered for the vulnerable through indigent policies. As a gap, the adverse effects of the partial influence of NPM included poor project management, high labour turnover, centralisation of resources and limited participation by low-income groups.

###### **Recommendations**

###### **Continuous auditing of compliance**

At the national- level, the government should ensure increased legislative influence and compliance in budgetary and OBLM applications. Therefore, the problem is not the insufficiency in legislation but rather the failure to adopt, comply, and follow up on existing legislation.

Legislative compliance is done with a tick-box mentality and not full compliance. The tick-box approach to governance in South Africa should be replaced with quality controls. Compliance with legislation should be continuously audited throughout the year, not only at year-end. Monitoring support systems should be put in place to ensure this.

### **Increased consequences for maladministration**

Poor governance has nurtured opportunities for corruption, collusion, and incurring fruitless and wasteful expenditure. Perpetrators must be prosecuted without partiality. For instance, China arrested 300 000 Chinese government officials (Zhao et al., 2019). While China executed corrupt officials, South Africa's process should be within the provisions of the constitution. A serious campaign against corruption similar to the Chinese approach should be rolled out. This should be supported by a rigorous policy framework that requires effective monitoring. The monitoring framework can include the anti-corruption arms of the government (Zhao et al., 2019).

Therefore, CDM needs to adopt a new organisational culture of ethics. This should bridge the gaps between legislation and implementation, especially regarding finances(budget) and service delivery (OBLM).

Stricter penalties must be levied against those who defy National treasury directives, for instance, the defiance by municipal managers who made investments into the mutual funds' bank (instead of a commercial bank) contrary to MFMA and National treasury advice.

### **Implement business process re-engineering and organisation learning techniques**

At the national level, consultants with experience in implementing NPM should be hired to pilot and establish the best practices for NPM adoption by district and local municipalities. Over and above the use of consultants, the country should also consider strategies used by fellow Lower to Middle-Income Countries (LMIC), Malaysia, and Singapore (Silvestre et al., 2020). Improvement of governance structure and accountability at the national level is also important.

At the district level, CDM should engage in business process re-engineering, organisational learning and increase the scope of innovation in administration (Van Eyk et al.,2017). Each municipality should be required to display its progress at its legislative sitting. The District Development Model (DDM) implemented in 2020 is an example of a government initiative seeking to increase NPM influence.

### **Continuity in managerial positions**

Short tenures in management terms of office have to be increased to ensure continuity and growth in institutional knowledge. Preservation of institutional knowledge should be done by retaining competent managers and hiring experts who employ mentorship and coaching styles. Knowledge management strategies need to be applied to preserve intellectual capital. Management changes should have comprehensive hand-over and take-over procedures that ensure accountability. This should prevent the carryover of previous management malpractices to the next administrative period. Vacant managerial positions should also be filled in.

### **Increasing stakeholder engagements**

Other district-level recommendations would include increasing stakeholder participation so that services delivered meet customer expectations and reducing protests (Naidoo, 2019). NPM and legislation require community members to hold the municipality accountable for failed service provisions and failure to comply with legislation. Entrepreneurs and youth need more accessibility to non-biased municipal information and receive training to understand the documentation. This will enable them to make relevant contributions that benefit them. The marginalisation and exclusion of rural communities and low-income earners, the indigent and the vulnerable in-service delivery decisions should be avoided. The disadvantaged communities should find representation and be allowed to participate effectively in municipal decisions and budgetary allocations.

## **Increased use of latest technology to assist operations**

While online platforms exist, the majority of CDM communities do not have reasonable access to mobile phones and the internet. CDM should invest in the latest technology that gives unfettered access to the digital opportunities that come with the fourth industrial revolution. For instance, this will enable the municipality to run the e-customer relationship management (e-CRM). This will benefit the municipality in running e-customer services that assist them to profile and satisfy the needs of the customers. This in turn will assist in-service delivery and revenue collection.

### **6.1.2. RESEARCH OBJECTIVE 2**

#### **Summary of findings and results**

CDM shows areas where good cost management existed, especially in managing fruitless, wasteful, and irregular expenditure patterns. There are, however, areas of concern from financial ratios and cash flow analysis which revealed poor asset management, liquidity, debtor management and working capital management problems. The continual increase in OPEX and budgeted variances show poor budget control and discipline. The study results showed underspending of CAPEX and limited discretion over CAPEX development at the district level. CDM failed to raise its funds for operations, infrastructure, and socio-economic projects from 2014 to 2019.

#### **Recommendations**

##### **Effective management of Operating Expenses**

CDM should eliminate avoidable operating expenditure (OPEX). The highest OPEX is ascribed to categories referred to as '*Other expenses*', '*remuneration*' and '*bulk purchases*.' These expenses can be addressed by increasing the efficiency of the supply chain and procurement strategies. Business process re-engineering and lean manufacturing techniques can be used to decrease the costs of inventory management. Investigation into supply chain misdemeanours such as cutbacks received by municipal buyers is necessary. In addition, fair competition should be encouraged amongst creditors. This is expected to have a positive impact on the price and quality of the goods and services procured by the municipality.

## **Improve budgetary management**

CDM should improve budget estimates and find strategies to address negative variances. This should discourage budget slacking and overspending. Increases in remuneration and rewards should be subjected to audit processes to weed out fictitious employees, and unscrupulous increases in remuneration. A flat organisational structure that deals away with heavy top management and redundant positions would decrease personnel costs and salary burden. Restructuring processes coupled with job redesign reduce task duplication and underutilised workers. Outsourcing, of jobs, automation and part-time employment should be considered as strategies for reducing employee costs.

The municipality should reduce budgetary indiscipline by creating balancing budgets and debt repayment. Municipal managers must ensure all operations are within the budget ceiling. Accountability for breaking over expenditure should be levied against perpetrators. There should be decreased reliance on government bailout as this creates complacency in management. CDM should improve its creditor relationships by committing to repayment schedules (AGSA, 2018).

Weaknesses in the billing and revenue collection system should be mitigated by introducing measures that identify and improve costing methods such as the Activity-based Costing method (Luft et al., 2014). For sustainability purposes, CDM should strongly consider implementing strategies for generating funds to pay for OPEX and not rely on national transfers. These strategies should include improved billing and revenue collection systems, revenue-generating projects, and business relationships and partnerships with private companies that need to be cultivated to augment their cash flow.

## **Attracting investors**

CDM should increase its revenue generation by engaging private businesses in infrastructural and economic development as done in Chinese Special Economic Zones (SEZ) (Ho, 2019; Woo, 2020). Each local municipality in the district should attract investments and donations from international businesses and NGOs by offering incentives and tax cuts as done in the USA and Brazil (Funck & Karlsson, 2020).

Also, CDM can join the list of ISO31000 compliant municipalities which increases investment as done by Tokyo, London, and French municipalities (Fernandez, 2020).

A by-law must be passed at the national level, which legalises district municipalities collecting and allocating revenue from local taxes copying the model used in the USA and Lithuania's local taxation systems, including the real estate tax. The local and district municipalities' right to collect tariffs and citizens' income tax, tax on transportation, etc., within statutory limits (Gilman & Wampler 2019). National legislation should hold municipalities accountable that fail to enforce risk management and legislation policies that would have prevented most of the financial issues found in this study. Gilman & Wampler, 2019).

### **Controlling Capital expenditure (CAPEX) to avoid poor service delivery**

There are two general traits discerned in this study. There is poor service delivery, resulting in overspending CAPEX due to fruitless and wasteful expenditure. Another trend of poor service delivery arises from underspending where the municipality fails to use the allocated grants. In both cases, the common pattern was that there is insufficient stakeholder consultation, especially that which involves the disadvantaged communities.

The CAPEX resources come from the government as conditional grants which decrease CDM discretion over capital developments in line with assessed community needs. The recommendation is for CDM to decrease its reliance on the National Treasury transfers so that it can have discretion over its capital developments.

Good management of CAPEX by CDM would be expected to increase living standards (HDI), and GDP and decrease multidimensional poverty (SAMPI) and unemployment levels (McAndrew & Kaskutas, 2020). The study recommends increasing CAPEX in CDM fairly across local municipalities to improve the living standards (HDI) (Ramos et al., 2020). Managers should also ensure that OPEX is lower than CAPEX for a health municipality.

Naidoo (2019) further says, the government should revise its distribution of national funds as the bulk goes to metropolitans whilst rural municipalities such as CDM receive less funding. This increases the inequalities (Gini ratio) in capital development between the metros and non-metros.

### **Recommendations from the findings of the Ratio- analysis**

The study's ratio analysis showed that CDM has a poor asset repairs and maintenance record. This has generally resulted in pipes bursting, electricity outages, ageing infrastructure, borehole malfunction, and potholes which affect the quality provision of service to its communities. Poorly managed assets (fixed and movable) frequently break down which increases protests by dissatisfied communities. Repairs and maintenance need to be done frequently by qualified individuals and sophisticated repairers be contracted. Preventative maintenance and asset replacement are needed.

### **Effective debt management and revenue collection**

Debtors' management ratios revealed low revenue collections that led to decreased income. The municipality should decrease its debtor cycle so that it has increased revenue streams for safety, emergency, and repairs of damaged properties. The municipality can employ debt collectors or debt factoring and debt insurance strategies. Increasing negative consequences for defaulters such as fines and imprisonment while increasing incentives for early payment can be used to motivate citizens. Efficient delivery of household services would also lead to increased revenue collections since paying customers would not suffer the same fate as delinquents.

### **Capital budgeting and balancing municipal budgets**

CDM also needs to invest in technology to improve debt collection (Tran & Noguchi, 2020). Reducing the debtor payment period and diversifying CDM's revenue streams is a good strategy to increase cash flow. In terms of asset management, repairing rather than replacing fixed assets is an alternative CDM could use while disposing of unused non-current assets. Furthermore, the municipality can lease out municipal assets for income.

In capital budgeting techniques, the purchasing of new assets should be considered to determine the Net present value and internal rate of return and the Payback period to determine their worth. The resource-based review (RBV) should be used to identify internal weaknesses that need to be prioritised are used to ensure that the asset is worth purchasing.

Management should also aim to balance the municipal budget rather than exceed its ceiling (Wulandari et al., 2018). The municipality should hire managers well versed in liquidity and working capital management, especially those who are CIMA members. The USA and China hire highly skilled managers, a position encouraged by NPM (Khan et al., 2020). Other strategies to increase liquidity include amortizing prepaid expenses and applying a shorter working capital cycle must be applied. Non-current assets should not be financed with working capital and long-term loans used to pay off short-term loans (Ramos et al., 2020).

### **6.1.3. RESEARCH OBJECTIVE 3**

#### **Summary of findings and results**

Research objective three assessed the triple bottom line outcomes. The results revealed backlogs in household service delivery statistics and weak economic indices. Wealth and infrastructure were unevenly distributed across CDM's local municipalities. Project managers failed to appreciate the scope of project complexities which led to failed delivery. The environmental sustainability measures were mostly qualitative and lacked the quantitative parameters necessary for comparison and tracking progress.

#### **Recommendation**

District level recommendations swift investigation into failed controlling and monitoring of projects that resulted in incomplete and abandoned projects. Failed project management led to infrastructural development that failed to meet stakeholder needs. Contractors failed to meet project timelines, budgets, and scope. Project governance oversight should be carried out in phases. This will ensure that projects are started and completed timeously, especially those regarding basic service delivery. The study recommends that CDM use the iron triangle in figure 6.1 below as a guiding tool to balance time, cost, and scope to ensure project quality (Tabish & Jha,2018).



**Figure 6.1: Iron Triangle Solution**



Source: Tabish and Jha (2018)

### **Improve project management strategies**

CDM must improve its recruitment strategies and supply chain management for expansive projects. China, which made expansive developments to its rural areas, sub-contracts large projects to tried and tested, high performing companies to decrease failure rates (Li et al., 2018). Hired contractors should provide a portfolio of evidence of previous work done when applying for tenders and these must be adequately verified. Colossal projects can be tendered to international organisations which are contractually bound to transfer skills to local municipal workers. New entrants, for purposes of promoting BEE, should be given smaller projects and monitored until completion. Service level agreements should be transparent and used to audit the project upon completion.

Failure by contractors to deliver as per service level agreement should have dire consequences. These consequences should include blacklisting, fining and arresting entrepreneurs. Follow up on lawsuits relating to breaches in contracts be taken seriously (Wu, 2020). The bulk of payment made to contractors must be made upon inspection, completion, and approval by affected community members.

## **Quality control and assurance**

Quality control and assurance systems must be actively put in place. Responsibility and accountability centres must be clearly defined so that managers who make payments to defaulting contractors are held liable for negligence. A culture of Total Quality Management (TQM) principles must be created (Tabish & Jha, 2018). A Swift response to community complaints is needed as well as internal audit processes that consider the quality of project management (Gamalerio, 2020). CDM must further dedicate an office to qualified project managers as this is an area of leakage.

The municipality is advised to adopt principles of project resilience and complexity management that ensure continuity (McAndrew & Kaskutas, 2020). Adequate risk management procedures must be followed to reduce the identified problems such as risks of incomplete projects; financial risks, i.e., corruption, collusion; and noncompliance with project management protocol and legislation. These risks must be mapped out and risk avoidance, transfer, and mitigation strategies deployed (James et al., 2019).

## **Development of marginalised areas**

CDM is characterised by high inequalities across its local municipality. CDM should increase the economic viability of all its local municipalities rather than relying on Polokwane as the main contributor to its growth. This led to, protests and high-risk behaviour that hinder the 90-90-90: AIDS target (Naidoo, 2019). CDM's CAPEX budgetary allocation and service delivery should focus on developing marginalised local municipalities with low infrastructural indexes i.e., Blouberg, Lepelle-Nkumpi, and Molemole. Equitable distribution of water, sanitation, housing, employment, health care facilities and education should be granted. The district municipality should increase employment opportunities and the employability of its citizens.

Additionally, AGSA should update its audit scope to include an overview of socio-economic and environmental outcomes. CDM is a municipality with several abandoned service delivery projects, and frequent suspensions of mayors and managers over fraud yet receive unqualified audits and a clean audit in 2019. The municipality has defaulting debt payments and unbalanced budgets. The study recommends the use of social scientists, stakeholder satisfaction and environmental metrics to be included in the scope of audits.

## **Radical transformation and agile leadership strategies**

CDM's administration arm should adopt a radical transformative leadership style which would lead to organisational change. The culture and attitudes of public sector workers should be ethical. It is necessary to root out corruption, cadre deployment and poor oversight. This turnaround is not impossible, as evidenced by large multi-corporations such as Tyco, Volkswagen, and Beyond Petroleum (BP) which were formerly plagued with corruption and unethical conduct.

Radical transformation is needed to create a new culture of honesty, integrity, and moral leadership (Sendjaya, 2005). Change management models, specifically the ADKAR (Awareness, Desire, Knowledge, Ability, Reinforcement) model by Jeff Hait, need to be applied to ensure government employees and management adapt and embrace the positive changes in operations, organisational culture, and structure.

### **Change of organisational culture**

Suggested strategies to curb corruption and collusion include replacing a culture of partial compliance with full compliance (Daniels Fund Ethics Initiative, n. d). Top managers and employees should take a cultural diagnostic survey to determine their attitude towards ethical conduct. This will scope the contents of compliance and ethics training and workshops. Tyco, for example, created a website called the 'Vital Values Ethics Reflections Website ' where managers discussed compliance and data were analysed to track the success of ethics training programmes. CDM would adopt strong and ethical corporate leadership, accountability, transparency, and behaviour tracking processes.

Moreover, an ombudsman position should be created that mediates between management and employees. A culture of whistleblowing and a confidential hotline concern line must be created. This will allow employees to report misconduct without victimization. Quarterly reports from anonymous whistle-blowers would then be addressed. Employees should be held accountable for ethical progress in the municipality as they have contact with management and stakeholders.

## **Update socio-economic indicators**

Lastly, CDM should update its socio-economic indicators, for example, HDI, which is error-prone with the recent Human Life Indicator (HLI), which considers inequalities. The GDP would be replaced by the Genuine Progress Indicator, which considers the ecology in measuring the district's value. Moreover, the social progress indicator (SPI) should be used. Updating these metrics guarantees construct validity and comparability on an international level.

### **6.1.4 RESEARCH OBJECTIVE 4**

#### **Summary of findings and results**

The analysis of 32 management accounting practices (MAPs) from the CGMA framework showed that CDM is operating at foundational to intermediate levels of proficiency.

#### **Recommendations**

CDM needs to improve the MAPs applied in budgetary and OBLM applications. Controlling and monitoring are expected to improve with advanced and expert levels of proficiency.

#### **Human resource management strategies**

CDM should reorganise its hiring and selection processes. Basic levels of proficiency can be ascribed to retaining elements of traditional public management which restricted innovation from managers. This coupled with poor compliance with recruitment policies led to weak administration of MAPs. CDM should hire professionals with cash flow and financial management backgrounds instead of cadre deployment (Steccolini, 2019; Zimmer & Grabbe, 2020). Mayors and councillors should also have financial management training so that they can effectively oversee the activities of municipal managers. Background checks must be done diligently to verify the authenticity of qualifications and that applicants have a good history of ethical conduct (Andhika et al.,2018).

Training programmes from SETA should be regularly done so that managers can understand the management and sustainability controls and how to use internal control systems to improve effectiveness and efficiency. Continuous learning and development culture must be introduced in the municipality. Suspensions without pay and repayment of losses and unauthorised expenditure will also mitigate administration problems (Wu, 2020). The national-level recommendation would require the review of the 2017 exemptions on minimal competency levels by Pravin Gordhan.

### **Stakeholder engagement strategies**

Key stakeholders should support and share the vision of the municipality (Knowlton & Philips 2013; Anttiroiko, Bailey, & Valkama 2011). Non-governmental organisations can participate in equipping citizens with training to hold municipalities accountable. Such NGOs include the likes of Ndifunikwazi. These, however, are most prevalent in metropolitans (Naidoo,2018).

### **6.1.5 RESEARCH OBJECTIVE 5**

#### **Summary of findings**

This study finds that the Budget and OBLM are suitable tools for controlling and monitoring performance in CDM since the tools possess all SGPB controls. Therefore, it can be concluded that maladministration in CDM does not result from absences in control systems inherent in the OBLM and budgetary metrics design or functionality. Empirical evidence in Chapter 3 shows the universality and successes of these tools for monitoring and controlling performance in municipalities (Knowlton & Philips, 2013; Khodachek, 2016).

#### **Recommendation**

This study recommends that CDM continues with the budgetary metrics and OBLM to monitor and control performance.

## 6.2 CONCLUSIONS

The management and sustainability tools (the budgetary metrics and OBLM) are viable and suitable for effective monitoring and controlling. The tools possess the qualities of the researcher SDGP model. CDM requires the increased influence of NPM and legislative influence in its operations. A culture of compliance and quality oversight is expected to increase effectiveness.

Empirical evidence shows the successful application of the budget and OBLM for controlling and monitoring in the USA, China, Brazil, and OECD countries. Differences in results from applying the tools are due to the influence and compliance with NPM, legislation, differences in the expertise of the managers, stakeholder involvement, and continuous improvement initiatives. A good performance measurement system will not benefit users with low competency levels or administration with vacancies in key positions. This impacts the ability to interpret, apply, administer, monitor, control, and make decisions.

The root cause analysis (RCA) analysis highlighted the main problem at the district and national levels. The interconnectedness of objectives and the RCA meant that the main problem and symptomatic/minor problems are resolved with each recommendation made towards the five research objectives.

## 6.3 LIMITATIONS

- This research does not use contemporary measurements of social-economic progress. The South African system is yet to adopt these. Information relating to these could only be found at the provincial and national levels, not at a district level. As a result, they are not considered in this study. Examples are the Genuine Progress Index (GPI) which replaces GDP, the Human Life Indicator (HLI) instead of HDI, and the Social Progress Indicator (SPI) to measure the triple bottom line outcomes.
- Primary data sources, such as interviews, and surveys were not used in this study because of time and cost limitations. It would have benefited this study to hear the perspective of management regarding this study.

- MFMA circular 71 informs the ratios used to determine the municipal performance evaluation as discussed in Chapter 2.
- The cost of procuring information from data vendors was prohibitive for this study.
- The absence of quantitative environmental indicators made.
- Some information was missing and only found during censuses, the next census is in 2021, and this post-census period is not within the scope of this study.

#### **6.4 AREA OF FURTHER STUDY**

Areas of further study that the researcher recommends are as follows:

- The prevalence of political budget cycles in CDM because it impacts the budgetary and OBLM to secure votes
- Inclusion of community perception in IDP: Enhance community participation in the IDP to include their interests and ownership.
- Assess the competency of AG to encompass community perception in the evaluation of CDM's performance. This will ensure that the tool does not give a clean audit where community members are disgruntled.

#### **6.5 CHAPTER SUMMARY**

Chapter 6, therefore, makes conclusions on the research questions considering the theoretic framework in Chapter 2, a reference to the empirical evidence in Chapter 3 and the findings in Chapter 5. The Yinian methodology used in Chapter 5 warrants a reference of empirical evidence and theoretical framework in these conclusions. These conclusions and recommendations are relevant in addressing the research questions and problems identified at the commencement of the study and those found in the Root Cause Analysis. The chapter also briefly discusses the limitations and areas for further study.

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