COST CONTROL AND OPERATIONAL PERFORMANCE AT ETHEKWINI HUMAN SETTLEMENT UNIT

A dissertation submitted in fulfilment of the requirements for the degree of Master of Accounting (Cost and Management Accounting)

By

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February 2024
Declaration

I, Msawenkosi Cedric Ngubo, declare that the idea for and the writing of this dissertation are my own. This work has never been submitted in any way for another degree at a university or other higher education institution. It has been recognised that all information was taken from either published or unpublished sources.

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Abstract

Government municipalities have encountered notable challenges due to their inability to undergo necessary revitalisation and keep pace with the ongoing modernisation of the contemporary business environment. Within South African municipalities, prevailing cost accounting methods exhibit a lack of alignment with contemporary advancements in cost management. This misalignment has resulted in delays in delivering vital community services due to an insufficient grasp of strategic resource cost control. Consequently, there arises a distinct imperative to undertake an inquiry into the practical cost control techniques employed, the determinative factors influencing cost controls and the resultant effectiveness of such controls in improving operational performance of the eThekwini Human Settlement Unit (HSU). This study aims to identify the role of cost controls in improving the eThekwini HSU’s operational performance. Specific objectives include investigating cost control techniques, factors influencing cost controls, and their effectiveness. Employing a quantitative approach, this study used a questionnaire instrument with closed-ended questions to gather data from 44 purposefully selected HSU employees. Data analysis involved descriptive and inferential statistics using SPSS (version 27®), ensuring reliability and validity. Ethical considerations were observed throughout the research process. The investigation revealed that the eThekwini HSU implements an array of strategies encompassing budgetary frameworks, audit techniques, cost estimation and cost analysis tools in its pursuit of cost containment. Conversely, negative factors of cost control were identified, prominently including challenges rooted in deficient communication, a lack of administrative accountability and socio-political influences. In the context of perceptions, a notable agreement emerged amongst the surveyed personnel, showing the effectiveness of established cost control mechanisms. Based on the findings derived from this study, it is recommended that the eThekwini HSU take proactive measures to address the identified challenges in cost control. This research contributes to the adoption of modern cost control techniques in the eThekwini HSU and, by extension, other municipalities. Improved cost management processes enhance service delivery and benefit citizens by ensuring efficient resource allocation.

**Key words:** Cost controls, Operational performance, eThekwini municipality.
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<tr>
<td>HSU</td>
<td>Human Settlement Unit</td>
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<tr>
<td>AG</td>
<td>Auditor General</td>
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<td>DUT</td>
<td>Durban University of Technology</td>
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<tr>
<td>KZN</td>
<td>KwaZulu-Natal</td>
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<td>MFMA</td>
<td>Municipal Finance Management Act</td>
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<td>MFM</td>
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<td>SPSS</td>
<td>Statistical Package for Social Sciences</td>
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<td>IREC</td>
<td>Institutional Research Ethics Committee</td>
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<td>HOD</td>
<td>Head of Department</td>
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<td>COGTA</td>
<td>Cooperative Governance and Traditional Affairs</td>
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<td>IA</td>
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<td>IIA</td>
<td>International Internal Audit</td>
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<td>IIM</td>
<td>Internal Information Management</td>
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<td>ERP</td>
<td>Enterprise Resource Planning</td>
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<td>OCB</td>
<td>Organisational Citizenship Behaviour</td>
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<td>DoRA</td>
<td>Division of Revenue Act</td>
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<td>IDP</td>
<td>Integrated Development Planning</td>
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<td>SME</td>
<td>Small Medium Enterprise</td>
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<td>QM</td>
<td>Quality Management</td>
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<td>SCRM</td>
<td>Supply Chain Risk Management</td>
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CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Since the year 1994, there has been a backlog in terms of housing subsidies in South Africa (SA). This was due to the climate created by the apartheid government. Since then the Human Settlement Unit (HSU) has been on a mission to provide shelter to its citizens. This has necessitated the increase in the budget every year. The 2011 eThekwini municipality Cornubia revealed that housing for 120 000 people would be provided (Cooke, 2014). It further illustrated that over time, development would strengthen the City's rate base, generating millions in rate revenue annually for eThekwini Municipality (Cooke, 2014). However, the 2017 Auditor General (AG) report revealed extravagant spending in the eThekwini municipal finances (Makwetu, 2017). The AG report 2019/2020 stated that in this financial year HSU achieved an unqualified audit outcome with a finding of performance information (Maluleke, 2020). The year before in the AG report 2019, an irregular expenditure of R747 million was understated in the financial statements (Maluleke, 2020). There is a need to re-evaluate and reinforce internal policies, processes and procedures as revealed by the performance information. Therefore, the introduction of modern cost control techniques will provide monitoring to already existing internal policies. This will provide vast benefits for the eThekwini HSU to maintain its budget whilst making informed decisions and improving its operations.

Given the background to the housing backlog in SA, government is now under pressure to apply cost control techniques that are in line with recently adopted programmes of all spheres down to the departmental unit (Cooke, 2014). Furthermore, there is even more expectation for these spheres to perform in a manner that will not only serve the citizens but a manner that will show proper management of expenditure and resources (Cooke, 2014). The importance of services in the decision-making process has
increased in the field of resource consumption, where they were previously viewed as fixed and irrelevant.

In the past decades much research (Alkalha, Bamford, Reid, and Al-Zu'bi, 2021, Ifaray, 2020; Chen, Liu, Huang and Dang, 2022) has focused on cost control systems applied by profitability companies to cut their expenses and increase their earnings. Most research has focused on cost controls in the manufacturing industry (Parker 2020). This is because the application of cost control techniques is used effectively in profit organisations, and as a result, fruitless and wasteful expenditure is mostly incurred in the public sector. Government spheres are now under pressure to implement the latest control measures due to increase spending provision for houses. Research was conducted by Saragih (2020) to study the variables that can influence operational performance and corporate competitive capability.

The application of cost controls in any organisation or divisions brings about greater monitoring, analysis of transactions and cost management strategies (Chen, Liu Huang and Dang, 2022). To avoid negatively affecting earnings at any time, cost control is of the utmost importance in any corporate concern (Parker, 2020). A study conducted in Kenya provides solid evidence in favour of using cost controls to manage project costs. The study also demonstrates that management needs to emphasize improving the elements of project cost management, including resource acquisition, cost estimating and cost control (Gitonga et al., 2022). Research conducted in Egypt analysed the result of poor cost controls in a construction project. Furthermore, the findings revealed that the reasons for cost overruns were inaccurate cost estimations and poor cost controls (Abdel-Monem, El-Mohr and El-Dash, 2022). This was also supported by Akinradewo and Aigbavboa (2019) in study on the influences contributing to the escalating expense in construction projects in Nigeria, which found that poor practise of cost control techniques was a major factor in cost overruns. These results provide significant support for this current study (thesis) on improving operational performance through cost controls.
1.2 Overview of eThekwini Municipality

The eThekwini Metropolitan Municipality is the third-largest metropolitan municipality in SA after Johannesburg and Cape Town. It is situated in the province of KwaZulu-Natal (KZN) on the country’s east coast. eThekwini Municipality is the only Metro in the KZN Province with a budget of over R50 billion to deliver services to change people's lives for the better (The Durban eThekwini municipality n.d). Accounting for 34.7% of the total population in KZN, this municipality is suitable for a study that aims to examine the municipality’s operational performance and its key cost control techniques for a budget of this magnitude (The Durban eThekwini municipality n.d). The municipality's mission statement, encapsulating values like equality, sustainability, and care, must reflect in all departments, more so in the HSU which directly impacts the living standards of thousands (The Durban eThekwini municipality n.d).

In the Auditor General report (2020/2021), eThekwini received an unqualified audit report due to compliance with supply chain management processes, even though several reports have shown under spending on their projects in the recent years (Maluleke, 2021). The recent financial report (2021/2022) also shows key objectives the eThekwini Municipality adopted to maintain the operational standards in this city (Maluleke, 2022). These objectives include improved customer care, good governance, effective and efficient administration, communicating programmes and policies of the municipality (Cooke, 2014).

These above-mentioned objectives have necessitated eThekwini Municipality to adopt performance measurement tools to provide for efficient operational performance. The Auditor General report (2021) fiscal year findings revealed the municipality's financial situation was poor due to low housing rate collection, which called for an improvement in the unit’s operational performance (Maluleke, 2021).
1.3 Research problem

To ensure effective cost management within organisations, realistic budgets must be prepared and there must be compliance with those budgets. More importantly, to ensure this compliance, costs must be monitored and controlled to ensure financial discipline. Local municipalities lack the knowledge of sound financial control and financial reporting, resulting in community services not being met timeously (Khanyile, 2016). Masuku and Jili (2019) suggest that the failure to take accountability and responsibility is regarded as one of the main causes of poor municipal financial management. Audit results show that irregular expenditure on local government constitutes about 32% of the R71 107 billion budget (Municipal Financial Management Act report, 2017). These poor results are due to the lack of quality and credible information provided in financial records, as well as some municipalities not complying with the Municipal Finance Management Act (MFMA) (Khanyile, 2016).
There is a need for local government to reassess its systems on the application of financial control (Khanyile, 2016), hence the need to conduct this study. A large section of the local government procurement is in incurring extravagant spending on inventory, which is a result of poor municipal financial management (Mwakibinga and Buvik, 2013). Abushamsieh, Lopez, Hernandez and Ortiz (2013) believe that poor municipal financial management in the local government is a lack of use of municipal resources and this is attributable to the failure of cost allocation and management. Greyling (2016) states that poor workmanship within local government has contributed to a cost of about R1.3 billion; this was forfeited in rebuilding the Reconstruction and Development (RDP) houses. Rebuilding the inferior constructed RDP houses resulted in a 10% wasted budget (South Africa Info, 2010). This was the implication of poor control, monitoring and planning (Greyling, 2016). This has put much pressure on large municipalities like eThekwini to maintain efficient performance. Due to high-paced urbanisation, eThekwini HSU is forced to convert high cost land to liveable spaces. This is due to unavailability of well-located land and limited time to convert underdeveloped areas.

Generalising this issue, the study shifts its focus to the eThekwini HSU. Given the government's lavish outlay on housing provision, the eThekwini HSU shoulders the substantial responsibility of overseeing a budget within one of South Africa's largest metropolitan municipalities. In summary, extant literature underscores a pressing challenge confronting local government, which is the paucity of expertise in cost control (Khuzwayo, 2017). Khuzwayo (2017) expounds on the manifold latent benefits that South African municipalities can reap, accentuating the need to interrogate the role of cost control in ameliorating operational performance in the eThekwini HSU.

1.4 Aim and objectives of the study

1.4.1 Aim

The study aims to identify the role of cost controls in improving the operational performance of the eThekwini HSU.
1.4.2 Objectives

The following are objectives of this study:

- To investigate what cost control techniques are applied by the eThekwini HSU;
- To investigate factors influencing cost controls in improving operational performance in the eThekwini HSU; and
- To investigate the effectiveness of cost controls on improving the operational performance of the eThekwini HSU.

1.4.3 Research questions

- What cost control techniques does the eThekwini HSU apply?
- What are the factors influencing cost controls in improving the operational performance of the eThekwini HSU?
- What effect does cost control have on the operational performance of the eThekwini HSU?

1.5 Significance of the study

Many research studies (Khuzwayo, 2018; Khanyile, 2016) have been conducted towards improving the cost management of municipalities, however little is known on the application and effect of the costing techniques in the HSU. The findings of Khuzwayo (2018) revealed that municipalities in SA still relied on traditional costing systems, which disables them from fulfilling the needs of the citizens while lowering service delivery. The SA government introduced the MFMA to offer reliable financial base to municipalities for better provision and sustainable service delivery (The National Treasury, 2011). The MFMA aims to provide up-to-date and modern cost management tools for SA municipalities. Although improvements have been made, there are still municipalities that use traditional costing systems.

One of the largest spending by the government is for the provision of housing. This means that departments such as the HSU are responsible for the allocation of maximum budget, which further implies that efficient cost control techniques are practised to guide and maintain such a budget. As the eThekwini Municipality is one
of the largest in the east coast metropolitan, therefore such a study will suit this population and will enable to give a broad examination around the research questions. Results gained will enable better generalisation across all other municipalities.

Based on the large budget allocations for the eThekwini HSU, effective measures should be in place and staff members should be equipped with knowledge on the application of cost controls, which makes them a target population for this study. In addition, the eThekwini HSU consists one of the largest populations, which allows more generalisation to the results.

This research intends to encourage the use of modern cost control systems in the eThekwini HSU so that it can provide relevant and competent information to citizens. Cost controls are critical in an organisation that wants to provide consistent and transparent services to its consumers, as they provide sound cost management processes without any large investments. The implementation of modern cost control techniques will improve the cost management processes in the eThekwini HSU and citizens under this governance will benefit from continuous improvement in service delivery.

1.6 Research Design

The research methodology served as the framework that guided the entire study process. It encompassed various critical elements, including research design, target population, data collection methods, data analysis, and ethical considerations.

In terms of research design, the study adhered to a quantitative approach, aligning with the positivist philosophy. This approach aimed to provide numerical strength to the respondents’ views and perspectives on the topics under investigation. To structure the research design, the study followed the model of a research onion, as outlined by Saunders, Lewis, and Thornhill (2012).

The target population for this research consisted of 44 employees who were purposefully selected due to their expertise and direct involvement in the finance division of the local government department. This section encompasses various key
functions, including internal control, financial control, accounts control, and budget control.

Data collection was conducted by distributing a structured questionnaire with closed-ended questions. The researcher utilised both hand-delivered and emailed questionnaires to ensure comprehensive coverage of all individuals within the target population.

Subsequently, the collected data underwent quantitative analysis using the Statistical Package for Social Sciences (SPSS) version 27. The researcher conducted a thorough analysis, which included examining variables, assessing frequencies, calculating means and standard deviations, evaluating reliability, conducting factor analysis, and performing chi-square tests. These analytical methods aimed to reveal relationships and patterns within the data.

Prior to commencing the research, ethical considerations were of paramount importance. The study underwent a rigorous institutional ethics review process, obtaining approval from the Institutional Research Ethics Committee (IREC) at the Durban University of Technology (DUT). Additionally, permissions were sought from the Head of the Department of Management Accounting at DUT and the Post Graduate Research Office. To ensure transparency and voluntary participation, consent letters were provided to all participants involved in the study.

This research methodology established a solid foundation for the study. It ensured data integrity, ethical compliance, and the acquisition of meaningful insights into the role of cost control in enhancing operational performance within a local government context.

1.7 Overview of chapters

This dissertation is divided into five parts, as shown below.
1.7.1 Chapter One: Introduction

The first chapter is an introduction to the study and provides the reason for it; it describes the study's context, defines the research issue and provides the study's motivation, as well as the study's objectives, aim and research methodology.

1.7.2 Chapter Two: Literature review

The second chapter provides a theoretical overview of cost control methods and related variables, as well as a summary of the current literature on the role of cost control in improving operational performance.

1.7.3 Chapter Three: Research methodology

The third chapter describes the study's research design and methodology, including the development of a sampling plan, the selection of data collection instruments, data collection procedure, questionnaire design and distribution, data collection procedure, data analysis and the reliability and validity of the instruments used in the study.

1.7.4 Chapter Four: Presentation and discussion of results

The fourth chapter contains an outline and discussion of the findings.

1.7.5 Chapter Five: Conclusions, recommendations and future research

The conclusion and recommendations resulting from the results are presented in Chapter five, along with a brief discussion of the study's limitations and suggestions for future research on the role of cost controls and operational performance on local government and human settlement departments.

1.8 Conclusion

This chapter provided a context to the project, a statement of the research issue, the study's goals and objectives, a theoretical structure and justified the study's necessity. In addition, the chapter outlined the study's scope and gave a brief overview of the research methodology. Finally, a summary of the chapters was given to provide insight
into the thesis's structure. The next chapter presents a summary of the literature on the factors that affect cost control's role in improving operational performance.
CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The previous chapter looked at the background of the study, problem statement, aim and the objectives of this study. This chapter reviews the literature related to the objectives of this study by firstly providing a historical overview of the municipalities in SA. Thereafter an overview of the theoretical framework, concepts of cost control techniques and cost controls of SA municipalities are discussed. This is followed by a discussion on operational performance. Empirical literature concerning studies that investigated cost controls is presented and discussed within the appropriate sections. Lastly, the historical review of eThekwini Municipality and the HSU is discussed.

2.2 Background to the South African municipalities

In the 2015 local government handbook, SA consists of 226 local municipalities, sectioned into 44 district municipalities and 8 metropolitan municipalities. The eThekwini Municipality is one of the 226 municipalities. The mission of SA municipalities is to provide all people with services and respond satisfactorily to their needs. In the 2015 budget review of the SA municipalities, it was discovered that challenges existed regarding the budget. These challenges include attempting to balance revenue and expenditure due to inefficiencies and persistent corruption scandals (National Treasury, 2015). As a result, this contributed to several violent protests due to the shortfall in service delivery. The Local Government Review 2011 revealed that municipalities are still faced with reporting issues that contain inaccurate data and less useful information. The SA municipal sector is occupied by political influence, following recent evidence where public funds were channelled to personal accounts to escape prosecution of officials and to secure votes (Khanyile, 2016). The AG Report (2013) revealed that SA municipalities do not have accurate reports on their financial statements. Out of the 226 municipalities, only 50 municipalities got a clean
audit result, which is only 18% (Auditor General, 2013). Local government still faces the continuous rise of poor financial accountability, some of these results have been covered on radio stations and in newspapers where citizens vocally expressed their dissatisfaction regarding service delivery (Khanyile, 2016); (Thusi and Mashabela 2023). This has pressured municipalities to rethink their application of financial control measures. Khuzwayo (2017) suggested that for SA municipalities to be successful and be able to react quickly to their shortfall in service delivery they need to examine their cost management difficulties. One of the problems encountered by local municipalities is applying the idea of believing that each of their divisions is not dependant on each other (Khoza, 2005); (Thusi and Mashabela 2023).

SA municipalities use Municipal Financial Management (MFM) to control the use of their funds (Nzuza and Lekhanya, 2014). MFM is a decision-making mechanism that records and oversees local government budgets to accomplish goals (Ambe and Badenhorst-Weiss, 2012). According to The National Treasury (2011), weak financial management results in the misallocation of municipal resources and increased corruption risk. The SA government enacted the MFMA of 2003 to lay sound financial practices and modernisation of municipal financial management for better service delivery (Ambe and Badenhorst-Weiss, 2012). The MFMA establishment replaced the outdated system of compliance with rules and procedures within local government finance (Khanyile, 2016). SA municipalities have made progress since the establishment of the MFMA. However, progress is uneven as many municipalities are still yet to implement the practices of the MFMA on consistent reporting (Hanabe, Taylor and Raga, 2017).

2.3 Concept of cost control

According to Sunkavalli and Sandhya (2019) and Weygandt and Kimmel (2020), cost control is concerned with keeping the operating cost of the organisation within an acceptable limit. This means if there is an excessive difference between actual cost and planned cost, cost control measures are necessary. Cost control actions should result in the reduction of immoderate expenditure, which is when levels of production are beneath the agreed standards or when material wasted is greater than budgeted (Oyegoke et al., 2022).
Cost controls are an avoidance of unproductive use of the organisation's resources, which involves mostly funds (Chand, 2020). This means finding economical ways of doing operations and waste prevention within the environment (Chand, 2020). Cost control involves the process of budgeting to identify and reduce an organisation's expenses thereby increasing its profit (Kenton, 2020). Cost control is any sacrifice of money with the aim of security benefit. There can be no cost-free productive activity; thus, the organisation's profitability target will not be achieved (Weygandt and Kimmel, 2020).

Previous studies by Drury (2007), Jayeola, Sokufun and Oginni (2012), Liu (2017) and most recently by Khuzwayo (2018) and Selepe (2023) have shown that organisations incur unnecessary high operating costs, which results in lower profits and poor operational performance. Cost controls are required to ensure that costs are held to their lowest minimum (Akenbor and Agwor, 2015). The main goal of any economic activity is profit and getting the best results regardless of the nature of that activity. Therefore, it is essential for organisations to know and to use methods measuring their cost of work (Sunkavalli and Sandhya, 2019). According to Oyegoke et al. (2022), cost control is concerned with keeping the operating cost of the organisation within an acceptable limit. This means if there is an excessive difference between actual cost and planned cost, cost control measures are necessary. Cost control actions should result in a reduction of immoderate expenditure, that is when levels of production are beneath the agreed standards or when material wasted is greater than what is budgeted for (Sunkavalli and Sandhya, 2019); (Selepe, 2023). The eThekwini Municipality celebrated an unqualified audit outcome in the 2021 fiscal year, but still had an unstable financial performance, which necessitated the application of effective cost control techniques. The AG report shows that even if the municipality exercises compliance controls, there is still a need to assess their cost controls.

Organisations employ cost control methods to evaluate, monitor and improve the efficiency of their divisions (Weygandt and Kimmel, 2020). This reveals the importance of this research as it aims to provide cost control techniques that will evaluate, maintain and improve the operations (Oyegoke et al., 2022). This study will provide several cost control techniques that have different outcomes but with one main objective, which is to improve operational performance.
The following sub-section will discuss how cost controls are applied within an organisation. It will also provide the methods and the responsible executers of cost controls.

2.4 Cost control application

Setting the target to be accomplished—that is, the aim or goals to be attained and the cost controls that will help the organization get there—is the first step in cost control. (Akintola and Omotola, 2022). Budgets are used for this reason to provide the benchmark against which the real costs and results may be measured (Akintola and Omotola, 2022). The cost control method helps to control this pattern and stops the discrepancies if the costs show a shift from the target, resulting in a deviation from the aim. This direction and legislation shall be implemented through an administrative order by the executive responsible for incurring the costs (Thabang et.al. 2023). To be clear, managing costs is not the primary responsibility of a cost accountant, he only helps to manage expenditure, because the individual who receives it can only manage expenditure. The responsible executive will be informed by the cost accountant of the exact time he is required to take action to limit expenses. As a result, cost control is the implementation and supervision of an executive order that applies to all expenses incurred when running a business. Cost control encompasses all practices and systems that regulate how much it costs to carry out an activity and works to keep costs below a certain level. (Akintola and Omotola, 2022).

Siyanbola and Raji (2013) argued that a dynamic business requires daily operational information to plan for the future, to track current operations and to assess managers' prior performance, workers and related business divisions. To be effective, management guides the actions of its employees in the organisation's activities according to pre-established objectives and goals. The guidance of management involves two types of controls: behaviour management and supervision and performance assessment.

2.5 Benefits of cost control

Cost control is of paramount importance in any business concern, the neglect of which at any point in time, may have an impact on earnings (Parker, 2020). During the
manufacturing process and even during administrative, sales and distribution processes, waste is reduced when managing costs. The conduct of employees in the company starts with a strong cost management system, as employees are instrumental in achieving organisational objectives. Chen et al. (2022) further explained that organisations use cost management strategies to monitor, analyse and eventually increase the effectiveness of areas within their activities, such as departments, divisions or product lines.

Chen et al. (2022) also believed that every organisation needs a team to implement cost control. This encompasses the following advantages:

- Cost control offers adequate and system-oriented knowledge to control the operations of an organisation operating in a competitive market.
- Eliminates inefficiency to ensure that the working climate is conducive.
- Ensuring that the financial statement is sufficient and correct at the end of the year.
- Irrelevant expenses are avoided.
- Enables the effective and continuous management of operating activities.
- It supports and guarantees controls and balances on the utilisation of funds by the organisation.

Cost control techniques discussed in this study include the following.

2.5.1 Budgeting

Historically, budgeting is characterised as a common method of accounting used by organisations to carry out the strategy. Essentially, budgeting is key in the framework of trust between people and governments. A budgeting involves financial planning and a list of all expenditure and profit that are expected. This is a saving, investing and spending technique (Kamau, Rotich and Anyango, 2017). In terms of helping organisations to accomplish their objectives, they found that a budget is a significant procession variable (Eton et al., 2019). The budget is characterised as an integral part of management control systems aimed at fostering cooperation and coordination within the organisation between sub-units, providing an efficiency appraisal mechanism and ultimately motivating managers and other staff (Irafay, 2020). However, it has been
argued that budgets create vertical management and control systems that are incompatible with flat, network or value-chain organisational structures of empowered workers (Zighan et al., 2021).

A review of a plan of revenue and expenditure made in advance of the public financial year involving a document called the budget has become a practice at all levels for a government to prepare and approve according to law (Kamau, Rotich and Anyango, 2017); (Mamokhere and Kgobe, 2023). The government is held accountable by individuals through the budget for the allocation, custody and utilisation of state resources. These tasks should be conducted in accordance with current regulations, policies and procedures set out in the government's financial regulation (Kamau, Rotich and Anyango, 2017). Research, such as by Lenee and Oki (2017), indicate that it is very important to include stakeholders of both public and non-profit entities in the budgeting process to ensure performance measurement and successful management. Information on budget execution at both national and local government levels should be given to citizens to achieve approval of budget goals and improve operational efficiency (Eton et al., 2019).

A well-formulated and well-executed budget can promote people's socio-economic well-being, funding development initiatives and promoting public service administration. Without a successful budgeting mechanism, this cannot be done (Kamau, Rotich and Anyango, 2017). Budgeting is one of the most efficient and valuable accounting management strategies that if properly understood and applied, can reap good rewards. It promotes the effective use of available funds, enhances decision-making and offers a benchmark to assess organisational efficiency (Kamau, Rotich and Anyango, 2017). Budgets impact employee actions and decisions by translating business priorities and offering a metric against which to evaluate results. Kayode and Tunrayo (2022) and Thusi and Selepe (2023) also saw such organisational planning as the foundation of management. A budget allows for the establishment of an objective and a performance level with the corresponding comparison of actual results with the produced standard. Budgets make priorities transparent, code learning, promote control and contract with third parties.
2.5.2 Software integration

The mechanism has led administrators to strengthen their strategies, research and monitoring capabilities, given the current financial crisis facing the government of developing countries (Senyo, Effah and Osabutey, 2021). Integration refers to the degree of interoperability and interconnectivity between technological components or applications, as well as to a certain level of standardisation. This method is perceived to be more effective because each system has separate integration process services and interface properties for standardised systems (Senyo, Effah and Osabutey, 2021). Integration of software involves integrating the separately designed components/modules into a larger unit/subsystem or final product/system that works. Many deficiencies that remain secret in the early stages occur during the stage of integration or even worse during the stage of verification/validation (Ilyas and Khan, 2017). Several product development companies face two fundamental problems. which are decomposition and integration, the overall design project needs to be split into individual tasks and progress on these tasks more specifically involves incorporation into an overall design. Therefore, research into the field of software integration is critical, to enhance the overall process of software development (Ilyas and Khan, 2017). To streamline service delivery, information system incorporation in every company should be carefully implemented.

2.5.3 Time management

Time management involves the 'combination of time assessment, goal setting, planning and monitoring operations to produce results (Aeon and Aguinis 2017). However, there’s no universal definition for managing time. Further by Aeon and Aguinis (2017) describe time management as a form of individual decision-making for structuring, protecting and adapting time to changing circumstances. Time management has various effects on the performance of an organisation and job performance (Aeon and Aguinis, 2017).

2.5.4 Internal audit

Internal Audit(IA) is a review of the organisation's financial statements and accounting documents, as well as compliance with predetermined top management standards and
compliance with government regulations and professional relations conditions in place (Saputra and Yusuf, 2019). It is critical that the task of the IA assists the municipality by ensuring that the municipality’s procedures and policies are respected and that financial reports are kept correctly. In addition, municipalities mandate that the IA function also conduct fraud detection exercises. The IA is seen to play a minimal role as the financial checker in the municipality (Sibanda, Zindi and Maramura, 2020). Further illustrated is the fact the audit feature should be regarded by management and employees as something that brings value to the municipality so that it can continue and be supported.

IAs are in all instances very limited in their participation in risk management activities. More importantly, management ultimately remains accountable for risk evaluations. IAs also perform their own risk analyses, but these are largely focused on management input and other risk management functions (Eulerich and Eulerich, 2020). IAs play a role in integration. In other words, the role of internal auditors in risk assessment can be seen as a critical feedback for their internal control system assessment, an integral part of their assurance role (Eulerich and Eulerich, 2020). The advisory position of IAs in risk assessments is very restricted in both cases. More importantly, IAs enable management to meet their risk evaluation obligations by promoting risk self-assessments (e.g. designing risk assessment questionnaires and helping with the implementation of these questionnaires) (Eulerich and Eulerich, 2020).

IAs play a significant influence in the distribution of "best practices" through their own vast network of established companies (risk and control communication). As a benchmarking source for the efficacy and quality of their risk evaluation and internal control procedures, management also profits from internal auditors. Provision of risk and internal control reports from internal auditors is considered an essential contact method for a large spectrum of beneficiaries. In some cases, IAs create and maintain a consolidated risk database containing the findings of the various risk assessments carried out by management and the IA itself.

2.5.5 External audit

IA has the purpose of monitoring and assessing internal control systems and practices in an organisation while the external audit role focuses on the provision of attestation
services to the company's results (Saputra and Yusuf, 2019). While IA and external auditing have different functions, the possibility of establishing cooperation and teamwork to deliver high-quality audits and economic benefits is not excluded (Saputra and Yusuf, 2019).

2.5.6 Cost classification

In order to classify costs, a category of expenses must be divided into several divisions. A classification scheme is used to bring to the attention of management or to engage in financial modelling certain costs that are considered more severe than others (Weygandt, Kimmel and Aly, 2020). Weygandt, Kimmel and Aly (2020) identified the following types of cost classification:

Variable and fixed cost: Variable costs are separated into fixed and variable cost categories, and they are then deducted from income to satisfy a business's contribution margin. For break-even analysis, this information is used.

Departmental costs: Departments are allocated expenses for which they are responsible. The ability of each department manager to monitor their allocated costs is assessed using this data on a trend line.

Distribution channel costs: Expenses, such as retail, wholesale and internet stores, are divided into each of the distribution networks used. The gross total of each of these classifications is then subtracted from the related channel revenue to determine the channel advantage.

Customer expenses: Expenses, such as warranty costs, reimbursement and customer care costs, are classified by individual customers. To assess individual customer profitability, this information is utilised.

Discretionary expenses: Those costs which can be reduced or removed temporarily are known as discretionary. This approach is used to reduce costs on a temporary basis, especially when a company expects to have a brief drop in revenue.
2.5.7 Cost estimation

Cost estimation involves the estimate of the possible cost of a commodity, programme or project, estimated based on the information available. There are four types of cost estimation commonly used: (1) Planning estimate: a rough cost calculation within a rational range of values, prepared solely for information purposes. Often called Estimate Ball Park, (2) Budget estimates: an estimation based on well-defined (but preliminary) cost data and developed ground rules, (3) Firm estimate: a cost data-based figure that is sound enough to infer a binding contract, (4) Not-to-exceed/Not-less-than estimate: the maximum or minimum amount needed to perform the task in question, based on a firm estimate of costs (Business Dictionary, 2020).

Cost estimation involves the consideration of such factors and estimating a budget that meets the financial commitment necessary for a successful project. To keep a project under budget, efficient cost estimation is key. Many costs can arise over the course of a project's existence, and an accurate estimation method can be the difference between a good plan and a poor one. However, calculation is best said than done. Projects carry risks and risks carry unanticipated costs (Westland, 2019). The cost estimation method has been manual, time consuming and vulnerable to error for decades. Organisations may use standard measuring methods to simplify the process of cost estimation and reduce inaccuracies (Abanda, Kamsu-Foguem and Tah, 2017).

2.5.8 Decision-making

Decision-making involves the process of choosing a rational alternative from the choices available. It should be noted that decision-making based solely on performance would end up with arbitrary decisions that neglect the environmental factor (Soltani, Sadiq and Hewage, 2016). A step-by-step decision-making mechanism can be used to support you to make more intentional, reflective decisions through the arrangement of specific knowledge and alternatives to describe. This strategy raises the degree of the chances you are going to pick the most rewarding possible alternative (Dartmouth, 2020). According to Dartmouth (2020), the decision-making process includes the following seven steps:
**Decision identification:** You know you need to decide. Try to do it defining explicitly the essence of the decision that you need to make/fabricate. This first step is very crucial.

**Gather information:** Before making your decision, collect some relevant information: what data is needed, the best details, the best information sources and how to get it. This step includes working both internally and externally.

**Identifying alternatives:** When you gather information you will possibly recognise several potential routes, or alternatives, of intervention. You can also use the imagination and other information for the building of modern alternatives. Within this process, you will list all the alternatives that are feasible and attractive.

**Weighing the evidence:** Draw on your data and thoughts to imagine what it would be like if you were to perform each of the top alternatives. Assess if the need defined in step one will be accomplished or resolved through the use of each solution. When you go through this case, you will begin to prefer those challenging internal processes and alternatives: those that tend to have a higher benefit potential to meet your goal. Ultimately, position the alternatives, based on your own, in a priority order system of Importance.

**Choosing alternatives:** When all the evidence has been weighed up, you are ready to choose the option that appears to be the strongest one. You can even pick a combination of options. In step five, your option can very likely be the same or close to the choice you have put at the end of step four, the top of your list.

**Taking action:** You are now able to take some constructive measures by means of starting to incorporate the alternative you have selected in step five.

**Decision review and consequences:** Consider the conclusions of your decision in this final phase. Evaluate whether the need you identified in step one has been overcome. If the decision has not been reached, you will want to repeat the established need, taking certain measures in the process for a new decision to be made.

Creativity may also be encouraged or hindered by the pace of decision-making (Martins and Terblanche, 2003). Tushman, Tushman and O'Reilly (2002) argue that
cultural norms that contribute to rapid decision-making can promote the implementation of innovation (e.g. that speed is necessary and that the work rate is fast).

Decision-making is an act which has constructive implications. Quality monitoring is the focus of this decision-making. The Management Accountant must use his or her skills to help create an atmosphere that maximises the possibility of satisfying the outcomes well before decisions are taken and enforced (Amara and Benelifa, 2017). Management Accounting's role in decision-making tool is based on the following three functions: the processing of resource acquisition and consumption data, the alert consisting of reporting possibilities and the simulation that facilitates an analysis that determines the best options and then informs the managers' decisions. As a consequence, Management Accounting offers data that helps "rational" managers make reasonable decisions (Amara and Benelifa, 2017).

2.5.9 Standard costing

Standard costing is among the most commonly used cost management mechanisms (Akenbor and Agwor 2015). It aims to set performance targets and target costs to be achieved under the conditions defined. It is a pre-determined cost that, under certain conditions, determines what each good or service should cost. It is further characterised as the preparation and use, calculation and analysis of variances to their causes and points of incidence of standard costs, their comparison with actual costs. Under efficient processes, uniform costs should be obtained. A distinction between actual performance and standard performance tests the degree of progress. Akenbor and Agwor (2015) believe that the implementation of the standard costing method presupposes that an in-built process exists whereby the real costs incurred are compared annually to the standard costs. The regular costs are costs that could have been incurred based on the actual production of output. Further emphasised by is that the standards developed are mere predictions that are supposed to take effect over a given period of service. Real observed events may or may not coincide with the norms collection.
2.5.10 Ratio analysis

Ratio analysis is primarily used to compare results with other companies in the industry as an external standard (Chand, 2020). It can also be used efficiently over time to compare the company's results as well as to practice cost control. Ratio is a yardstick that compares the two figures to a calculation of interaction. In ratio analysis, an appropriate ratio is calculated first and then it is correlated with actual performance and the corrective steps can be resorted. The significant factor of this study is that the management will take a greater interest in relative as compared to absolute statistics.

Ratios may be used to benchmark the success of a business company in two instances. It helps to recognise areas that require urgent attention. Regular ratios compares real areas and standard ratios are combinations of the outcomes obtained by many companies in the same line of operation.

If these comparisons show any major variations, the firm will take appropriate measures to eliminate the factors responsible for rise in costs. According to the Human Settlement Annual Report (2019-2020), the department conducted a thorough analysis of the sector output against the previous MTSF and established a new MTSF, using internal resources and not external resources as originally intended. This resulted in a saving.

2.5.11 Value analysis

Quality analysis is a method of cutting costs that considers product design. Here, before purchasing any equipment or products, a study is undertaken to determine what purpose these items serve, whether other lower-cost design will work as well and whether there is cheap material that can serve the same purpose. Value analysis is therefore a process that defines the role of goods or components, determines suitable prices, defines alternatives and assesses them.

Thus, the purpose of value analysis is to recognise those costs that do not contribute to its specification or functional value in any way. Therefore, it is the method of reducing the cost without compromising the predetermined output requirements.
2.6 Cost control and South African municipalities

In order to be sensitive and effective, SA municipalities must review their cost control problems (Khuzwayo, 2017); (Thusi and Selepe, 2023). It was acknowledged by the Department of Cooperative Governance and Traditional Affairs (COGTA) in 2009 and Khoza (2005) that South African municipalities are not responsive to the changing environment facing 21\textsuperscript{st}-century organisations. This modern economy no longer accommodates traditional systems as they focus on the containment of cost rather than cost reduction, and are therefore no longer relevant (Drury, 2007). However, most SA municipalities still apply traditional management approaches (Khoza, 2005; Drury, 2007). One of the reasons for poor cost control is bias performance measurement bases (Jayeola, Sokefun and Oginni, 2012).

The main purpose of SA municipalities is to provide basic services to all citizens. Khuzwayo (2017) and Thusi and Selepe (2023) suggested that for the municipalities to be successful and able to react quickly to the shortfall in their service delivery, they should examine their cost management challenges and ensure that the costs in providing these services are managed efficiently. According to a survey conducted by COGTA (2009), poor cost controls have a direct adverse impact on the provision of service delivery. The eThekwini Municipality is a metropolitan municipality; therefore, it is more vulnerable to the continued rise in customer demands. Although the eThekwini Municipality is renowned for its competency in service delivery in SA, its cost control approaches are still poor (The Durban eThekwini Municipality, 2015).

Verbeeten (2011) asserts that the two main reasons why most public organisations do not make use of modern cost control approaches are that budget is usually based on the use of traditional systems, and they are not obligated by legislation to do so. However, according to Parker and Bradley (2000), the Public Finance Management Act 1 of 1999, provides that public organisations, including municipalities, must modernise their financial management systems for effective and efficient cost management. To support the PFMA Act 1 of 1999, the MFMA of 2003 was established to ensure the objectives of the PFM are achieved in terms of municipal functions (Khuzwayo, 2017).
As further explained by Ambe and Badenhorst-Weiss (2012); Nzama (2023), the MFMA underlies the process of achieving desired goals through monitoring and control of municipal finances. The establishment of the MFMA Act 56 of 2003 was to ensure transparency and effectiveness of cost control in acquisitions of the municipality (Nzuza and Lekhanya, 2014). Huefner (2011) holds the belief that a strong internal control system improves services, efficiency and saves money while improving decisions on stock acquisitions. The MFMA of 2003 provides for the modernisation of municipal financial management (Nzama, 2023). This will lay a sound financial base for better delivery of services (Local Government Budget and Expenditure Review, 2011:73). Khanyile (2016) supports this, stating that the MFMA is the key driver of financial control, therefore maximising municipal capacity and service delivery.

2.7 Operational performance

Operational performance is when the performance of the organisation is assessed against normal or defined sustainability, metrics of effectiveness and environmental responsibility, such as cycle time, efficiency, waste reduction and regulatory compliance. Operational performance is an increase in the response of a company to a changing world in relation to its rivals (Liu et al., 2013). A company should have a higher degree of proactivity and creativity than its rivals in proactively developing new products or services in order to generate operational performance that is highly sensitive to competitive intensity (Liu, 2017); (Zondo and Buthelezi, 2023). Entrepreneurial orientation (EO), which includes proactivity, innovation and risk-taking, encourages employees to proactively seek new ways to improve the value chain process, thus improving organisational performance components and delivery efficiency (Liu, 2017); (Zondo and Buthelezi, 2023).

Based on previous studies (Henry, 2003; Carton, 2004; Wagner, 2008; Cameron, 2010; Merchant and Van der Stede, 2011; Hubbard, 2014; Venkatraman and Ramanujam, 2017; Hatry, 2017) the following three indicators were identified for measuring organisational performance, namely financial indicator, operational indicator and market value. For this research, organisational performance is based on operational performance, discussed in the context of the operational indicator. According to Cristian and Monica (2017), variables reflecting how the company
performs in the non-financial field provide operational indicators. In recent years, assessing success based on basic non-financial dimensions has gained attention, as many companies have embraced the "Balanced Scorecard" approach (Cristian and Monica, 2017). This advances improvements in intangible assets such as patents or human resources and consumer and stakeholder satisfaction in performance.

2.7.1 Measuring operational performance

According to Agyei-Mensah (2017), the disadvantage in different divisions is that managers do not pursue objectives that are in the best interest of the organisation as a whole. When deciding on how to assess divisional profitability, two forms of calculations must be carried out; first, measuring the division's efficiency, for example, the division's economic performance and second, measuring managers' performance (i.e. managerial performance) (Agyei-Mensah 2017); (Zondo and Buthelezi, 2023). If the aim is to assess the efficiency of the divisional manager then the profitability measure should only include items directly under the manager's control. Thus, not all indirect expense allocations should be included in the profitability calculation. Similarly, some items, such as interest expense, taxes and the allocation of central administrative personnel expenditure that cannot be affected by the division manager, should be omitted from the profitability calculation in order to determine the economic outcomes of the division (Agyei-Mensah, 2017). Therefore, the following section will provide for performance measurement tools used by the HSU.

2.8 Performance determinants by the eThekwini Human Settlement Unit

The Mandate of the eThekwini HSU is to ensure that all SA citizens have access to sufficient housing. In addition, this unit uses a National Housing Subsidy System to administer housing subsidies and a Tracking, Evaluation and Impact Assessment System to ensure plans are carried out, to ensure monitoring and transparency.

In this context, the performance of the municipality relates, first, to providing essential services to enhance the lives of the community served. Asmah-Andoh (2012) suggests that performance can be interpreted as referring to the extent of accomplishment. In this sense, the result of organisational success is the basis for the
assessment. The eThekwini HSU is not a trading organisation, consequently, its receipts are obtained from administrative operations and commission won on withholdings from the payroll, parking fees from members of staff, refunds for telephone use and garnishee instructions (Human Settlement Annual Report, 2019-2020). The eThekwini HSU exercises its mandate and control of expenditure by way of four service programmes, namely administration, programme delivery support, housing development finance, human settlement policy, strategy and planning. According to the Human Settlement Annual Report of 2019, these four programmes act as performance indicators for the department. According to Asmah-Andoh (2012), performance indicators are measures of the inputs, procedures, effects and effect of construction projects, programmes or strategies. Operational performance analysis focused on performance indicators often defines performance as defined by the projects, how they are planned, assessed or evaluated and processes and components that relate individual and team activities to larger operational public objectives (Asmah-Andoh, 2012). The eThekwini HSU allocate total expenditure according to the below four mentioned programmes.

**Administration**

The purpose of this programme is to provide strategic leadership and administration support programmes for the department, promoting efficient administrative procedures, effective legal assistance and efficient systems of information technology (Human Settlement Annual Report, 2019-2020). This programme consists of six subdivisions that contribute towards ensuring the realisation of the objectives of the programme, which include:

- Providing effective leadership and management, the use of financial capital in compliance with the prescripts.
- Ensuring the reliability and security of the accessible Information and Communications Technology (ICT) infrastructure.
- Facilitate internal and external human contact and strong and effective legal assistance for settlements.
The objectives of this programme can be achieved through effective cost control applications, as they ultimately enhance efficiency and monitor and evaluate every division within the organisation (Siyanbola and Raji, 2013). According to Siyanbola and Raji (2013), cost control processes start in the administrative section as this is where employees receive guidance towards applying these cost control methods into operations. It is further emphasised by Sikka (2003) that this course and regulations shall be carried out by means of an administrative order or through steps taken by the executive responsible for incurring costs.

Programme delivery support

The purpose of this programme is to support the implementation, monitoring and assessment of programmes and projects for human settlements. It also plans to control the development of the sector's capacity and capabilities as well as to oversee governmental entities (Human Settlement Annual Report, 2019-2020). This programme is accompanied by its strategic objectives, which include providing support for implementation in the delivery of permanent human settlements, ensuring better monitoring and assessment of the sector (Human Settlement Annual Report, 2019-2020) and enhanced funding and capacity in the field of human settlements.

Housing development finance

The main purpose of this programme is funding the provision of accommodation and human settlement services management of all problems relating to improving access to finance for housing and the establishment of collaborations with the financial sector (Human Settlement Annual Report, 2019-2020). This is to ensure the fair and productive use of grants for human settlements. According to Kenton (2020), productive use of municipal funds can be achieved through cost controls. This is done through cost minimisation rather than maximising profit (Akenbor and Agwor 2015). If profitability is to be realised by minimising costs, then management must regulate operating costs. Managers are supposed to exercise some influence over the magnitude of costs incurred in each of the decision-making scenarios. In particular, operational managers must ensure that: (1) the prices of procured products are as low as possible; (2) the quantity of materials purchased during the period of production should not be excessive; (3) the cost of labour incurred is proportionate to the level of
production achieved; and (4) the rate of production sustained by employees must be the rate at which the desired level of production will be achieved.

According to the Human Settlement Annual Report (2019-2020), the sub-programmes that make up the housing development finance programme have under spent because of proper control of funds. To identify this, comparisons were made between budgeted and actual expenditure. Akenbor and Agwor (2015) identify cost control as the process of setting cost expectations, assessing real results, comparing actual costs with model costs and taking corrective steps where there are anomalies.

**Human settlement policy, strategy and planning**

The aim of this programme is to improve human settlement growth, policy and strategy for settlements and to ensure planning in order to introduce human settlement programmes (Human Settlement Annual Report, 2019-2020). The main objectives for this programme are setting up alliances to facilitate human delivery priorities of the settlement sector, managing the development and maintenance of policies for housing and human settlements and developing policies and programmes based on facts (Human Settlement Annual Report, 2019-2020).

**2.9 Municipal performance measurement**

An empirical study by Poister and Streib (1999) in North Carolina showed that for many years, the government has used systematic performance measurements in its budgeting and performance management processes. Currently, local governments are interested in benchmarking practices, comparing their performance to that of other jurisdictions and looking for management or service delivery approaches that deliver better results. A more recent study by Schatteman (2010) and Zondo and Buthelezi (2023) states that the documentation created to inform citizens how their government is doing, in this case, an annual performance report, is one indicator of the performance measures and effectiveness of current systems. There are obvious variances in the general quality of the annual reports generated by each municipality, even if the legislation is unambiguous in terms of measures and some reporting standards (Schatteman, 2010).
The assessment of municipal output comes in several shapes and sizes. Internationally, for development programmes, scores of indices exist to feed decision-makers with information (Bracegirdle, 2003). Quality scorecards and benchmarking programmes advertise attractive cities in which to live or do business. Measuring municipal efficiency involves measuring how well a municipality is doing when providing the public with goods and services. The volume, quality, productivity and results of delivering these goods and services are also included in performance measures. In the management of public and private organisations, performance evaluation is part of an operational culture that values preparation, transparency and the use of knowledge. Other ongoing management roles such as priority setting and performance management are assisted by measurement. The process of managing results allows a company to concentrate on its mission, priorities and goals, as well as its ability to learn and develop its work (Bracegirdle, 2003).

Measuring municipal efficiency involves measuring how well a municipality is doing when providing the public with goods and services. The **volume, quality, productivity** and **results** of delivering these goods and services are also included in performance measures (Bracegirdle, 2003). According to Bracegirdle (2003), it is possible to group performance measures into three classifications, namely:

- **To give transparency**: This means both public transparency and government accountability and people, or internal accountability between heads of agencies and representatives of councils.

- **To enhance efficiency**: This means enhancing the policies, programmes, plans and procedures that are used to deliver services. In this study, efficiency means doing things right, such as delivering services of a given quality in the least expensive way for the public to get the best value for their money. When elected leaders involve people in the process of determining desired policy objectives, it becomes possible to achieve a more comprehensive view of public sector effectiveness (Asmah-Andoh, 2012). Hence, performance effectiveness is not entirely an empirical and impartial notion, but it must be put in the sense of the ideals of a society (Asmah-Andoh, 2012).
To aid in assessing expenses: This means implementing a results-based approach to budgeting, which relates the allocation of resources to concrete, observable results representing negotiated objectives.

Bracegirdle (2003) identified the following performance measures for municipal government:

- Efficacy and quality of service and local administration.
- Core programmes, resource usage and overall capability of the Council.
- Inputs of management, service outputs, service results and satisfaction of people.
- Financial measures, community satisfaction, administration and services.

With a small number of coordinated approaches, municipalities have tended to describe their results. These approaches include:

1. The balanced scorecard
2. The logic model
3. Benchmarking

These techniques help municipalities develop a functional structure for the organisation and selection of measures (Bracegirdle, 2003).

2.9.1 The balanced scorecard measurement approach

In the early 1990s, the balanced scorecard approach was implemented as a way for private sector organisations to explain the fundamentals of what they do (Bracegirdle, 2003); (Schoeman and Chakwizira, 2023). The approach illustrates the main insights required to recognise the performance of the company. In assessing how well the company fulfils its vision and purpose and achieves its strategic objectives, the initial scorecard considered four perspectives:

Financial perspective: How do we look at our shareholders to thrive financially?

Customer viewpoint: How do we look at our customers to achieve our vision?
**Internal business process perspective:** What internal business process do we have to succeed to please our shareholders and customers?

**Learning and development perspective:** How can we retain our desire to learn and develop to thrive with our vision?

A systematic system of measures is given by the balanced scorecard approach. It covers the consistency and efficiency of the provision of municipal services, but extends the spectrum of initiatives by trying to relate the organisation’s short-term operational control to its long-term vision and success plan (Bracegirdle, 2003); (Kumar et al. 2023). Many municipal structures analyse administrative efficiency, while others assess processes of governance and service satisfaction among residents.

### 2.9.2 The logic measurement approach model

A fundamental method in outcomes management is the logic model. It is a planning model that can be used to express a performance logic or performance philosophy that will evolve over time in a phase. The logic for municipal success is also simply that municipalities use money to provide products and services that would support local residents (Bracegirdle, 2003). At all points in the outcome chain, this logical structure is converted into a language of inputs and outputs with acceptable performance steps. The logic model articulates short-term and long-term performance targets and establishes causal connections between budgets, activities planned and results predicted.

*Inputs* - The volume and quality of used services

*Processes* - The provision of services and goods

*Outputs* - The volume and quality of the products and services

*Outcomes* - The social effects of products and services (benefits)

### 2.9.3 The benchmarking approach

A third approach to defining municipal efficiency is performance benchmarking. It enables municipalities to equate their current performance with or against their own
defined objectives and historical performance. In specific service areas, many would equate themselves to neighbouring municipalities or to national or international performance benchmarks (Bracegirdle, 2003). According to the Human Settlement delivery statistics (2018-2019), this division benchmarks its performance.

Figure 2.1 Benchmarking approach by the eThekwini HSU

![Graph showing new fully subsidized houses constructed from 2016/17 to 2018/19]

Source: (The Durban eThekwini municipality, 2020)

Often, municipalities will rely on established structures (such as those used by professional associations) for indicator selection. This will allow the measurement software to receive support and promote its integration with existing data systems. It will also help attempt benchmarking and development (Bracegirdle, 2003). The eThekwini HSU currently uses the existing data from previous years and compares it with current performances as shown in Figure 2.1.

To help explain the output data, most systems gather explanatory information. By defining factors outside of the organisation's control, such as environmental or demographic characteristics, as well as factors over which the organisation has considerable control, such as personnel trends and business processes, the
explanatory data may place performance in perspective (Bracegirdle, 2003). It may help to clarify the performance of narrative knowledge that is essential for comparisons, the detection of unintended consequences of a service and the implementation of performance indicators in the process of improving them (Bracegirdle, 2003).

When assessing efficiency, municipalities rely on a combination of evaluation methodologies. These techniques are as either internal, external, consumer or peer review. The importance of self-assessment is recognised by most municipalities, especially as a consensus-building exercise within strategic processes. Although objectivity remains an important issue in data collection, the emphasis is clearly on the learning process, not the final report. In data collection, organisations often rely on other viewpoints and approaches. These include the use of surveys on citizen satisfaction, the use of external auditors or experts and the use of professional instruments to measure performance against service standards.

**Internal assessment** - Local authorities evaluate their own success in organisational or self-assessment practices in this method.

**External assessment** - External auditors, via service reviews or compliance evaluations, evaluate performance.

**User evaluation**: User evaluation is related to the experience of the consumer. It requires surveys of client or citizen satisfaction.

Municipalities use performance data to improve their knowledge of performance indicators and to facilitate key management functions (such as priority setting, strategic management and programme management), including the planning, budgeting, tracking and reporting cycle (Bracegirdle, 2003); (Schoeman and Chakwizira, 2023). The eThekwini HSU uses performance information in the following ways:

To know performance, capability, needs and concerns; develop performance priorities and objectives; allocate resources efficiently; effectively improve service quality and reliability; identify and replicate best practices; improve internal transparency and improve internal processes.
Benefits of performance measurements for the eThekwini HSU include:

- Stronger control of outcomes
- Strengthened customer experience
- Improved communication

2.10 Impact of cost controls on operational performance

According to Lawyer (2014), the continuous practice of cost control identifies potential problems thereby preventing any crisis. Cost controls also standardise quality and quantity of productivity and cost information relating to employee performance is provided to managers (Lawyer, 2014); (Selepe, 2023). Overall, the regular examination of controls ensures the validity of financial statements, whilst regular operational control review determines whether operations are controlled in the manner directed by the senior management (Aikins, 2011). Organisations implement controls to prevent the risks of loss of financial resources (Selepe, 2023); (Parker and Bradley, 2000).

The application of cost control techniques needs to be facilitated by everyone in an organisation, from top management to shop floor employees (Selepe, 2023); (Berger and DeYoung, 1997). Most organisations consist of an effective budget system that yields control. This budget system needs to be in line with the organisations’ control needs. Therefore cost control, known as cost management, offers the organisation the best alternatives for achieving their budgeted goals (Lawyer, 2014). Control in an organisation takes two forms, including management behaviour supervision and performance evaluation. The performance evaluation enables the measure of employees’ actions against business results. Hence, this will enable the organisation to identify the weakness it needs to rectify and strengths it needs to maximise (Lawyer, 2014).

Cost control brings opportunities that are associated with organisational culture, that is employees know the purpose and meaning for their work, while united with a common purpose, leading to team work (Burns et al., 2013: 492). This increases employee commitment, which increases productivity and leads to the achievement of organisational goals. This is supported by Khuzwayo (2017) and Collier (2013), who
stated that through the Kaizen costing technique employees are made to feel valued by organisations, which encourages employees to make positive contributions to the operations of the organisations.

Previous research performed under a similar sense of cost controls are presented and addressed in the following section.

2.11 Empirical studies on cost control

Several studies (Thusi and Buthelezi, 2023; Abushamsieh, Hernández and Rodríguez, 2013; Aikins, 2011; Franceschini and Galetto, 2003; Lüder, 1992, Şuteu et al., 2016, Lawyer, 2014) have been conducted that investigate the determinants of cost control. Some studies show that cost controls do not only improve performance but they reduce opportunities for fraud in local government by providing an early detection if it does occur (Huefner, 2011). It was also revealed that cost management also includes the correct financial systems that will allow for more transparent and informative reporting (Abushamsieh, Hernández and Rodríguez, 2013). In the UK, an attempt to introduce an accounting system that will be more informative was made by identifying the similarities and differences between various accounting systems (Lüder, 1992).

More recent evidence by Karanja, Mwangi and Nyaanga (2012) reveals a lack of desire to adopt cost control techniques in small-medium enterprises (SMEs); this was concluded due to the perception that SME staff lack knowledge, resources and the professional skills needed to affect these techniques. A more recent study conducted by Şuteu et al. (2016) reflects that the application of cost control techniques provides more conclusive information regarding:

- Monitoring costs,
- Increasing efficiency in budgeting,
- Empowering decision-makers,
- Better cost management of products.

Lawyer (2014) investigated the application of cost control and accountability influencing the effective implementation of budget on the private and public sectors, specifically analysing concept, application and effect in reporting.
The above studies by Schoeman and Chakwizira, 2023 and Suteu et al. 2016, Lawyer 2014 and Karanja, Mwangi and Nyaanga 2012, focus on the cost control techniques which form part of this current research, yet there are still limited studies that link these cost control techniques with operational performance while focusing on local government. Aikins (2011) examined the financial performance of local government through the adoption of internal controls in the US; the results of this study focused on the effective internal auditing unit of an organisation. This shows the lack of studies that examine the application of cost control techniques within local government.

The following section reviews studies conducted within a SA context. Khuzwayo (2018) analysed the implementation of the Kaizen costing in the eThekwini Municipality. The results of this study showed the lack of knowledge and understanding of the Kaizen costing system in improving cost management in the eThekwini Water, Sanitation and Electricity Department. Khanyile (2016) examines the performance in Umtshezi Municipality by analysing its financial accountability, reporting and financial control. The recommendations in this study were further knowledge of these three key elements and the MFMA, which is not an objective in this study. Nzuza and Lekhanya (2014) investigated the effectiveness of the MFMA on the performance of inventory management in KZN, which is limited to the factors influencing the MFMA on inventory management, which will be excluded from this research. Greyling (2016) examines the cost implications of going green, which seeks to find ways to build sustainable and quality houses. The focus for Greyling (2016) was on green building, which means economically-friendly methods and material for building houses. This study recommends the change in governmental financial systems.

A study was done by Graves and Dollery (2009) to assess the legislative compliance by the municipal financial management on local government, reflecting the performance of four local municipalities: Buffalo City, Steve Tshwete, Swartland and Emakhazeni, targeting their financial management. The recommendations of the study were inclined towards the evaluation of MFMA compliance, as negative results of poor compliance were revealed for all four municipalities. Therefore, it was necessary that this study be carried out in the KZN province, as it will lead to more knowledge, enhancement of cost control practices and improvement in the compliance of the MFMA in the HSU.
A study based on the HSU in the Free State and Gauteng was conducted by Greyling (2016). The study examined the cost implications of going green, which is building quality houses at low cost and construction practices that will not leave a footprint in the environment. The study was qualitative and used a purposive sampling method. The study results showed that shortage of skills, experience and knowledge regarding cost and effective practices of green construction has a negative impact on sustainable human settlement development.

The empirical literature review has highlighted the various gaps in literature and has warranted the significance of a study on cost control and operational performance to achieve the mandate of the Department of Human Settlement.

2.12 Factors influencing cost control on improving operational performance

The factors that influence cost control on improving operational performance are discussed in this section and have been categorised into: internal and external factors.

2.12.1 Internal factors

This section seeks to discuss various internal factors influencing cost control on improving operational performance in an organisation. The company's internal factors are linked to its competitive strategy, organisational structure, advanced technology, total quality management and just in time (Shahzadi et al., 2018). According to Amara and Benelifa (2017), internal factors are factors that can be controlled within the organisation. These factors are discussed below.

2.12.1.1 Total quality management

Total Quality Management (TQM) is one of the quality-oriented techniques utilised by many organisations (Litheko, 2023); (Zehir et al., 2012). TQM is a management technique that covers a number of both technological and behavioural issues to enhance organisational performance. Another description of TQM is that "TQM is a holistic philosophy of management that strives for sustainable progress and can be achieved in all functions of an organisation" (Kaynak, 2003). TQM is composed of multiple processes. To evaluate its impact on financial or non-financial results, various
researchers have adopted various TQM activities. These tasks include leadership management, quality management (Prajogo and Sohal, 2003). Satisfying the needs of customers is the main goal of total quality control and has given managers and leaders resources. It increases efficiency and creativity in an organisation. Organisations that use TQM have more benefits in terms of loyal buyers and advances in highest quality services. Nevertheless the result is considerable efforts to analyse the expense of modern practices in management and overall quality management (Amoah, 2023); (Shahzadi et al., 2018). Throughout the quality control climate, conventional accounting approaches that organisations rely on are ineffective because they do not establish the origin of capability (Zehir et al. 2012).

Many municipal government applications of TQM include police department efforts and in fire services, waste control, staff management, transportation, public infrastructure, parks and utilities (West, Berman and Milakovich, 1993; Watson and Hassett, 2016). TQM may be appealing to local governments because it helps agencies to better understand the needs of their communities. Agencies can thus avoid solely building their programmes for the clients who are most outspoken in their concerns. TQM also helps managers to reduce costs and enhance facilities. This is important for local governments that are facing increased obligations, lower revenues and public cynicism about their abilities.

More personalised, timely and cost-effective services are currently needed by residents, and the priorities of the TQM are aligned with these goals (Litheko, 2023) (Watson and Hassett, 2016). TQM's success depends not on the use of esoteric techniques, but rather on empowerment and systematic study of organisational change. Empowerment allows public officials the ability to recognise and respond to individual customer requirements without requiring time-consuming approvals (Watson and Hassett, 2016). TQM could challenge conventional administrative structures designed to regulate rather than motivate, and provide reliable services rather than adaptability.
2.12.1.2 Organisational structure

One of the main elements that contribute to organisational success is organisational structure. It can also be assumed that ensuring that the company meets its operational goals is the single most critical aspect (Nene and Pillay, 2019). The study by Nene and Pillay (2019) defined organisational structure as a mechanism that defines how tasks are formally organised and arranged within a deliberately organised community to achieve a common goal.

A variety of authors have found organisational structure to be a dependent element that explains the convergence of management control practices (Amara and Benelifa, 2017). Thus, the Human Settlement Report 2020 reflected that since the middle of the term of the Fifth Administration, the unit has been embarking on the process of updating its organisational structure and has carried this forward to the Sixth Administration.

2.12.1.3 Ethical decision-making

Any profession's ethical reputation is vital to its acceptance in society. Armstrong (1993) finds “ethical practice to be at the heart of the raison d'être of each profession." This is the case for the auditing industry, where ethical breaches can have significant economic effects and bring about broad financial turmoil (O'Leary and Stewart, 2007). For two reasons, ethical standards are especially important for IAs. First, IAs are also encountering moral conundrums that can question their expectations. They can encounter circumstances that require them to speak out and this is not always easy, especially when senior management exerts pressure to “go with the flow and not to make waves” (O'Leary and Stewart, 2007). Second, it is increasingly understood that IAs will have a major role in improving business ethics and corporate integrity, with the current focus on corporate governance (Brown et al., 2003). IAs are expected to collaborate with audit committees, boards and senior management as one of the cornerstones of corporate governance to help set the right "tone at the top going down to lower level employees (O'Leary and Stewart, 2007).

Through establishing and implementing a robust code of ethical behaviour, both administrators and management will further improve the ethical climate within the
organisation (O'Leary and Stewart, 2007). Evidence from studies shows that corporate ethics laws, followed by training and monitoring systems, have an impact on employee conduct. A code of ethical conduct may assist in upholding high standards of conduct within the company, however the code must be communicated within the organisation and implemented by management in order to be efficient (O'Leary and Stewart, 2007).

**Experience**

As noted, a number of previous studies have shown that experience has an impact on accountants’ and auditors' ethical decision-making (O'Leary and Stewart, 2007). The direction of the relationship is unclear, however Bernardi (1994) discovered in a working paper review experiment that managers outperformed seniors in recognising ethical signs. Research by Thorne et al. (2003) to analyse the effects of experience on the ethical decision-making of internal auditors found some evidence that more experienced internal auditors more clearly perceive unethical conduct than their less experienced counterparts.

2.12.1.4 **Internal auditors’ training**

Competency may be compared to an individual’s ability to perform a job or assignment adequately based on the level of schooling, professional experience and the staff's effort to continue professional growth (Baharud-din, Shokiyah and Ibrahim, 2014). The competency of auditors defines the organisation's successful auditing. This adds to the auditors' willingness to execute a comprehensive and disciplinary audit approach to increase the efficacy of the internal audit. The quality of audit work conducted in an organisation is measured by the integrity of auditors. Competency is assessed in terms of education level, expertise, competence and the staff's dedication to continued professional growth (Baharud-din, Shokiyah and Ibrahim, 2014); (Jori, 2023). Competency defines the auditor's effectiveness in developing a structured and disciplined approach to assessing and enhancing efficacy of the operations and financial management of the company, as well as the governance processes (Baharud-din, Shokiyah and Ibrahim, 2014); (Lopes et al. 2023).

According to Attribute Standards 1210 on Proficiency, IAs must have the expertise, skills and other competencies required to fulfil their individual duties, such as obtaining
sufficient professional certification, qualifications and knowledge to recognise fraud indicators (Hamdan et al., 2017) (Jori, 2023). It further notes that IAs must have adequate expertise to determine the risk of fraud and the way the company handles it. The Basic 1230 attribute - Continuing Professional Development states that IAs must improve their knowledge, skills and other competencies through continued professional development. Continuing professional education can be accomplished by involvement in activities such as membership, conference attendance, workshops and in-house training programmes. Competence includes expertise and integrity from schooling, on-the-job training and experience that the auditor can gain. Legislators thus set standards that must be met before individuals are eligible and entitled to conduct audits (Hamdan et al., 2017); (Lopes et al. 2023).

The role of an organisation's internal audit department is to help management achieve its goals and add value to corporate operations by assessing and enhancing the efficacy of risk management, internal controls and government processes. To do this, the IA department is also mandated by the International Internal Auditor (IIA) to carry out an ongoing internal quality evaluation and external internal audit department assessment at least once every five years. Most IA departments in state-owned enterprises have been found to have very poor compliance with quality assurance requirements, and non-IIA membership is among the reasons (Hamdan et al., 2017). In addition, Walter and Guandaru (2012) stressed that being a member of a professional body such as IIA would have a positive effect on the global IA departments' compliance with internal auditing standards. Becoming a member of the IIA would ensure that the IAs always comply with the internal audit requirements, know their responsibilities, the skills and expertise needed and the characteristics that internal auditors can represent in the organisation.

Prawitt, Smith and Wood (2009) have used the components of competence, whereby the outcome suggests that the more professional the IAs are the more likely they are to recognise the causes and measures of management bias in accounting accruals resulting in the avoidance of earnings management activity. Previous studies have shown the likelihood of the level of education of IAs influencing the capacity their to perform fraud-related tasks such as fraud detection. Baharuddin et al. (2014) used the standard of education as an aspect of the competence of the auditors. Therefore the
more trained IA would know more strategies, like detecting and avoiding fraud and will conduct a quality audit (Baharud-din, Shokiyah and Ibrahim, 2014).

2.12.1.5 Internal auditors’ ethical behaviour

The need for organisational independence and objectivity that can allow the audit operation to perform work of the audit task without intervention from any party is the other factor that can lead to successful government audit activities (Baharud-din, Shokiyah and Ibrahim, 2014); (Lopes et al. 2023). In terms of both assurance services and consulting for the company, the independence and objectivity of IA is important. Independence and objectivity are closely connected when freedom from situations that may challenge objectivity and no major quality compromises are made during the performance of the audit service. This is a very important component of audit success since the auditors can view any record relating to the audit work without favour or fear. In order to achieve the mandate given to them with honesty, the auditors would have an impartial report and a credible professional opinion on the auditing work (Baharud-din, Shokiyah and Ibrahim, 2014); (Jori, 2023).

If the auditors do not seem to be working in a capacity equal to a member of client management or as an employee, the independence of the auditors will not be deemed impaired. The task of IA is quite unclear, as IAs are part of the management team and assess management effectiveness and effectiveness independently at the same time (Baharud-din, Shokiyah and Ibrahim, 2014). However, concerns on increased interest were reported relating to the independence and objectivity of IAs in recent years. This may impact the efficacy of internal auditing because while internal auditors are responsible for protecting their employers’ best interests, they might be unwilling to counter management, irrespective of the consequences (Sarens and De Beelde, 2006).

2.12.1.6 Staff attitude

The behaviour of employees within the organisation is determined by internal environmental factors (O’Reilly III, Chatman and Caldwell, 1991); (Enaifoghe, 2023). Organisations also want their employees to be proactive, dependable, and
committed to exceeding high performance expectations through the productivity and effectiveness of employees. One way to do it is through the actions of individual employees (Salas-Vallina, Alegre and Fernandez, 2017). Organisational citizenship behaviour (OCB) is an extra-role activity that refers to presenting positive feedback that contributes to organisational growth and making attempts to altruistically assist one's peers (Salas-Vallina, Alegre and Fernandez, 2017). It is characterised by Organ (1988) as the person conduct that is discretionary, not explicitly or implicitly acknowledged by the structured incentive system, and that facilitates the organisation's successful functioning. OCB is a vital component of job performance but it goes beyond conventional work performance metrics and exposes a type of action that relates to constructive employee contributions that are not included in their job requirements (Rotundo and Sackett, 2002); (Enaifoghe, 2023).

A study was undertaken by Salas-Vallina, Alegre and Fernandez (2017), which used the attitudinal theory for the determination of different future employee behaviours. According to Salas-Vallina, Alegre and Fernandez (2017), happiness in the work place and organisational learning capability are vital aspect that drive organisational behaviour in the public services. The principles of organisational learning broaden the experiences of workers beyond their structured (Jo and Joo, 2011).

2.12.1.7 **Relationship between employees and management**

According to Martins and Terblanche (2003), the interpersonal relationship between management and employees is one of the key internal environment factors that contribute to cost control failure. An interpersonal relationship is an interaction that can vary from transitory to permanent between two or more individuals. In the sense of interpersonal relationships are established social and cultural pressures and other factors, including the working climate (Bodika and Aigbavboa, 2018). Several studies have shown that most workers quit their company because of the link with their immediate supervisor or executive (Chandrasekar, 2011); (Enaifoghe, 2023). Supervisors act as advocates for workers, organising and distributing the instruments needed by employees to do a successful job and providing positive support for a job well done (Chandrasekar, 2011).
2.12.1.8 Staff segregation of duties

Modern, well-run business entities enforce structures of internal control on material business functions, such as financial transactions, sales and acquisitions, to discourage fraud, embezzlement, mistakes and misuse, and to encourage employee responsibility (Robin-Jan, 2011). The establishment of duty segregation (also referred to as segregation of duties) is one of the most important internal control mechanisms. The goal of the segregation of duty is to ensure that a task that is subject to abuse is undertaken by more than one person. The role is divided into different essential steps or activities to execute a segregation of duties on a given business function. The steps or activities are delegated to various individuals or organisations (Robin-Jan, 2011). Segregation of duty structures also segregate not only who is permitted to execute a specific transaction, but also who is permitted to retrieve or record financial details related to that transaction. Since most large modern organisations use large enterprise resource planning (ERP) systems to consolidate the organisation's data and processes into a single structure, it is important to implement segregation of duty controls into the ERP system of the company (Robin-Jan, 2011).

When workers enter and leave a business organisation or are promoted or given new tasks within that organisation, the ERP system of the organisation must be regularly updated to include the required authorisations for those workers to perform their assigned tasks and to eliminate those authorisations that they no longer require (Robin-Jan, 2011). The initially well-designed internal controls introduced by a scheme can become redundant over time, generating new possibilities for fraud and violence. Therefore, it is critical that businesses periodically conduct segregation of duty assessments to ensure that their internal control systems are retained as individuals enter and leave and move about within a business (Robin-Jan, 2011).

In addition, companies need to constantly revise and improve their internal controls and implement new segregation of duty systems to avoid more failures as a company expands into new markets, or as previously unanticipated abuses or internal control failures are discovered (Robin-Jan, 2011). As the internal controls of an organisation
become more intricate and nuanced, the job of carrying out an analysis of segregation of duty becomes exponentially more complex.

2.12.1.9 Staff transparency

There is constant demand in recent times for accountability as a tool for enhancing good governance in public administration (Piotrowski, 2008). Transparency has been a central element in transparency processes at public administration (Tejedo-Romero and de Araujo, 2018). Transparency is an important source for people to obtain a clearer understanding of public policy, improve public confidence, minimise corruption and keep officials accountable for their acts. By introducing transparency and accountability, excessive spending can be overcome (Nzuza and Lekhanya, 2014). Failure to enforce the ideals of accountability and openness by MFM professionals resulted to local councils having to work critically in all areas of service (Nzuza and Lekhanya, 2014). Transparency is about government actions, growing government management efficiency and seeking principles of ethics (Cooper and Yoder, 2002). Transparency is focused on information accessibility and accountability, which is a public benefit that facilitates the functioning of markets (Albalate, 2012). Since the 1990s, interest in transparency has increased worldwide, when many international organisations proposed that governments adopt responsible policies and include information on their activities (Tejedo-Romero and de Araujo, 2018). The need to reduce corruption and misuse of authority in times of austerity is especially motivated by this argument (Tejedo-Romero and de Araujo, 2018).

Accountability is not guaranteed by transparency or the removal of corruption, but it is made more likely by it. (Tejedo-Romero and de Araujo, 2018). It enables people across different knowledge disclosure processes to find out what is happening within the government (Tejedo-Romero and de Araujo, 2018). Transparency goes beyond simple access to information, calling for information to be comprehensible to outside stakeholders. It includes the legal, political and institutional frameworks that make public administration information accessible to actors both internally and externally. Fung (2013) identified these four principles of transparency: (a) information on the activities and actions of public organisations affecting the interests of people should be
rich and readily accessible to the public; (b) the amount of information available should be appropriate to the degree that such organisations endanger the interests of the people; (c) information should be given in ways that are available to those who need it; and (d) the social, political and economic systems of society should be structured in ways that enable action to be taken by people.

2.12.1.10 Information management

The successful management of processes involves information management, which can be described as the availability and management of timely and relevant information (Devaraj, Krajewski and Wei, 2007). Modern IT enables businesses to collect a vast amount of previously unavailable internal and external information, rendering internal information management (IIM) and external information management (EIM) more relevant than ever (Prajogo et al., 2018). To assist in timely and reliable decision-making, this data can be aggregated and displayed centrally in real and near-real time. However, it must first be correctly implemented and then used by municipal workers for IT to be effective. Using digital technology such as computer-assisted design can allow data to flow seamlessly from one department to another to the degree that knowledge can be used rapidly within organisations to minimise lead times and increase process efficiency (Prajogo et al., 2018).

The adoption or estimation of the Internet of Things (IoT) in local municipalities is unclear, and a personalised Technology Acceptance Model (TAM) is being proposed to close the gap (Moriencyane and Marnewick, 2019). TAM has been used widely to estimate the acceptance and use of IT (Jokonya, 2015). TAM focuses on the behaviour of the individual towards IT systems as it can predict one's behaviour long before the person first comes into contact with the system (Hutchins and Hook, 2017). The proposed TAM model should allow and empower the local municipality to incorporate all the resources and enablers required before and after IoT implementation so that IoT can be implemented and used effectively for timely and effective decision-making (Moriencyane and Marnewick, 2019).
2.12.1.11 **Outdated systems (Technology)**

The challenges of modernisation and keeping up with technological advances have collapsed many powerful organisations (Khuzwayo, 2017; Martin, 2009). Although Berliner et al. (1988:1751) argue that cost control techniques are inadequate in evaluating the significance of non-financial measures, flexibility and quality. Many organisations have adopted the modern costing control tools as opposed to traditional standard costing (Bragg, 2010). Many organisations still rely on traditional costing systems, which is one of the major factors for poor controls, that is why there is a need for modern costing systems to facilitate stronger cost management (Khuzwayo, 2017). This influenced the study of Doorasamy and Garbharran (2015) which assessed the use of environmental management accounting tools on the performance of companies; the results of this study revealed that organisations used outdated technology and inefficient costing systems. These outdated control systems are inadequate in keeping up with the ever-growing and changing customer demands (Khuzwayo, 2017).

For organisations to improve their time-consuming systems, they should consider changes in IT systems for capturing new information and reporting (Abraham and Martin, 2016). In this modern business environment, old systems lack transparency of individual services and ever-growing significance in the use of resources (Jiambalvo, 2019). In the case where management removes an activity, like inspection, traditional systems cannot locate the source for the cost savings or cost reduction because they are placed in large pools (Kudanga, 2018). The modern cost control techniques are the best tools for organisations to stay competitive while making continuous progression in the quality of their services (Khuzwayo, 2017).

2.12.1.12 **Teamwork**

Team denotes a group of two or more individuals who collaborate to accomplish a common objective (Varela and Mead, 2018). While teamwork may be seen as a collection of qualities required for team operation, for example, expertise and flexibility, interpersonal acts that promote collaborative work (e.g. communication) may also be addressed. That is, teamwork is used simultaneously to capture personal
characteristics as well as a collection of behavioural habits that are required for teams to function (Varela and Mead, 2018). There is debate about the impact of team orientation on organisational performance. The efficacy of teamwork relies on the pervasiveness of the associated organisational objectives and on how team orientation and success are evaluated, despite evidence of the positive relationship between the orientation culture of a team and organisational efficiency (Rizzi, Annunziata and Frey, 2018). The following diagram shows the path and characteristics that teams should possess to achieve organisational goals.

Figure 2.2 Characteristics of teamwork for improved organisational performance (Khamis, 2019)

2.12.1.13 Staff communication

As organisations keep looking beyond their own internal processes to improve efficiency, they need to develop strong channels of communication with key suppliers through appropriate IT (Prajogo et al., 2018). Consequently, the control of external knowledge has become as critical to organisational success as the IIM (Prajogo et al., 2018). A structured communication system in the workplace encourages employee trust and loyalty and encourages stronger team work and relationships (Chandrasekar, 2011). A trust-based organisational culture that encourages open and straightforward communication can have a positive effect on encouraging creativity and innovation. Teaching staff that disagreement is appropriate will foster transparency in
communication, as it provides the ability to expose paradoxes, conflicts and dilemmas (Martins and Terblanche, 2003). At the same time, to be able to function creatively and innovatively, workers must feel emotionally comfortable and should be able to trust each other, which is in turn encouraged through open communication. The authors also suggest that the lack of communication between departments contributes to the fear of being transparent, highlighting inadequate monitoring (Nzuza and Lekhanya, 2014). In order to obtain new insights, a communication policy that is open to everybody, including interpersonal communication among teams and sections, is therefore important to build a culture that promotes creativity and innovation (Martins and Terblanche, 2003).

2.12.1.14 Leadership

The success of an organisation is greatly influenced by management. Management provides order, stability and consistency, resulting in efficient and smooth operations in the organisation (Algahtani, 2014). Management determines the life of an organisation; it does this by ensuring the achievement of its purpose and goals. Therefore, effective management control involves providing leadership through persuasion, maintaining proper training, improving the quality of results through evaluation and feedback (Lawyer, 2014). According to Mhlaba (2018), management needs to exercise duties and roles which include directing, controlling, organising and leading. The local government consists of public servants who are given leadership roles and are expected to lead with the flexibility of adjusting to the changing environment. These leaders should possess managerial skills that contribute to the progression and efficiency of service delivery (Mhlaba, 2018). For the proper provision of basic services, local government employees need to have adequacy, which is skills, ability and knowledge to carry out the task assigned to them (Mhlaba, 2018).

Control is defined as the leader's and management's ability to guide actions of employees responsible for executing the task, including generating revenue and incurring costs (Lawyer, 2014). According to Jones, George and Hill (2000), leadership involves the process of using individual abilities to instil influence on others, motivate, inspire and give direction to activities for achievement of an organisational goal.
Effective leadership influences the achievement of performance goals in the organisation. Since the year 2000, intensive regulations have been placed on the core municipal functions including planning, financial management processes and management budgeting (Schmidt, 2010). Yet many local governments still face delivery challenges and technical deficiencies due to failure in soft leadership (Mhlaba, 2018).

Leadership is not too different from management as they are interrelated. The values and beliefs of an organisation’s leadership and management are always reflected in the cultural traits of that organisation (Popa, 2012). Most successful organisations invest resources to grow strong management and leadership; therefore, they ensure that an individual with relevant skills and competences are recruited to continuously improve their capacity (Mhlaba, 2018). Organisations rely on their leaders for guidance upon unparalleled change (Pasmore, Lafferty and Spencer, 2009). More of the same is seen in local government, as it relies on its leaders to provide vision and enhance service delivery to citizens (Mhlaba, 2018).

Mhlaba (2018) argues that leadership can be very challenging in the local government since elections and changes in political leadership takes place every five years. These changes usually contribute to the changes in senior management positions in the municipality, leading to the deployment to senior positions according to political connections. High-quality service delivery requires a high level of leadership and stable management (Mhlaba, 2018). For better functioning of the municipality, political and administrative leadership should find ways of cohesion amongst one another.

Mhlaba (2018) examined the impact of leadership and management capacity by looking at the internal and external factors and clearly defining the roles of different leaders. This research was conducted in the Bushbuckridge Municipality in South Africa. The study used a mixed-method design for data collection and a questionnaire instrument was administered on the sampled population of 67 participants. An empirical study was conducted by Pasmore, Lafferty and Spencer (2009) in North Carolina. This study examined the impact of developing a leadership strategy as a critical factor for organisational success. The study further examined the skills,
collective capabilities and leadership culture created by leaders in the way in which they lead an organisation.

Mhlaba (2018) critically examined the different roles of leadership positions in local government. This study further examined the different leadership qualities, namely transactional and transformational leadership. Transactional leadership intends to reduce costs, workplace anxiety and motivate followers to fulfil their own self-interest. In contrast, transactional leadership intends to direct the focus of followers towards the achievement of organisational objectives and goals through improved organisational efficiency and customer service. This leadership enforces compliance on followers through rewards. Leaders that want to keep the status quo use transactional leadership; although this approach is effective in the event of crisis and emergencies, it does not influence the future. According to Mhlaba (2018), a person that inspires and stimulates their followers in achieving extraordinary results is called a transformational leader. The study by Mhlaba (2018) revealed that transformational leadership is the best tool for a diversified team within an organisation. This will in turn motivate employees leading to continuous improvement in productivity.

**2.12.1.15 Organisational culture**

Culture is a pattern of common fundamental assumptions, conceived, discovered or established by a given group as it learns to cope with its external adaptation and internal integration problems (Prasanna and Haavisto, 2018). According to Prasanna and Haavisto (2018) and Ramatsoma (2023), organisational culture can be divided into three levels: objects, beliefs and the concepts underlying it. Objects include noticeable structures and processes of the organisation and are seen at the surface level when an unfamiliar culture is identified. The strategic goals and ideologies (sponsored justification) include values. Compared with objects, values may be perceived as latent and reflect ‘ought-to-be.’ Unconscious beliefs, patterns of thinking, feelings and impulses, which are the basis of values and behaviour, are the underlying assumptions. Organisational culture also affects how an organisation communicates with key players, including staff, consumers and suppliers (Prasanna and Haavisto, 2018).
Organisational culture is concerned with collective or individual views, common values, ideals and attitudes within the organisation that decide how things are done or how things happen in the organisation. Mohelska and Sokolova (2015) argue that organisational culture has been characterised in many ways, but that behaviours, opinions, behavioural habits and basic values of employees within the organisation are common elements of these meanings. Sani and Allahverdizadeh (2012) and Ramatsoma (2023) state organisational culture supports the application of cost controls and encourages collaborative learning. Mitchell, Nørreklit and Jakobsen (2013) agree with Sani and Allahverdizadeh (2012) and further note that it is of the utmost importance that ethical values are followed by organisational culture in its application of cost controls. The beliefs and values workers use to direct their acts and decisions within the organisation are regarded as the code of ethics (Martins and Terblanche, 2003). Therefore, to preserve an ethical corporate culture, workers and their representatives must adhere to certain standards and principles (Martins and Terblanche, 2003). Martins and Terblanche (2003) also emphasised that if the organisational culture does not perform these roles satisfactorily, the culture will dramatically decrease an organisation's effectiveness.

Mohelska and Sokolova (2015) emphasised that there should be a good interpersonal relationship among employees for an organisation to maximise the potential of its employees. The interpersonal relationship is defined by the optimistic attitude of employees towards achieving organisational objectives. Teamwork and supportive interactions between managers and workers often establish a healthy interpersonal partnership within the company. As a result, the efficiency level rises and the quality of the goods and services improves.

Khuzwayo (2017) and Ramatsoma (2023) stated that the rapid changes in business environment have contributed much to the need for the service sector to learn new and apply updated information on modern cost control methods. Martins and Terblanche (2003) further stress that creativity flourishes when an organisation develops a strategy that promotes the generation and execution of ideas, creates mechanisms that allow for flexibility, promotes mobility and collaborative collaboration and maintains an open-door communication policy that facilitates open communication between individuals, teams and departments to obtain new perspectives. This creates an
environment where workers believe that the company values their ideas and they are motivated to be more creative and inventive (Alvesson and Sveningsson, 2015). The issues in SA municipalities are exacerbated by inefficiencies in structures and procedures, the introduction of conventional cost control systems and the separate treatment of organisational functions (Khoza, 2005).

2.12.1.16 Staff adequacy

According to Molobela (2016), SA municipalities are facing the lack of requisite skills among municipal staff members. Job vacancies include a combination of skills that are not job-related. The study also highlighted that key officials in finance units lack competencies and abilities to implement controls for the daily function of the financial performance of the municipality (Molobela, 2016). This increases the issues and challenges facing municipalities relating to governance, planning, finance and human capital (Kanyane, 2011). Chapter 2 of the Skills Development Act (1998:97) states that government institutions must budget for adequate training of all employees. Relevant officials’ lack of knowledge of financial management has contributed to infrastructure challenges (Molobela, 2016).

A study in Spain and Italy by Padovani, Yetano and Orelli (2010) suggests that there is a gap between the budgeted and actual results of performance management systems due to lack of understanding and successful implementation of management accounting technologies and practices. The study also revealed that time, long-term and short-term, is central to successful implementation of management control systems. Local municipalities will continue to experience a shortage of skills if there is a continued ignorance of proper and adequate provision of development and training to officials (Molobela, 2016).

Municipal officials lack the relevant qualifications and required experience to be in management positions (Yusuf, 2010). This was supported by COGTA, which revealed 37% of municipal managers have less than five years of experience. The report further stated that about 36% only have a matric or diploma qualification or less. The lack of expertise in municipalities is the result of a tendency by municipal councillors to appoint politically connected individuals to management positions, while qualified individuals
are denied positions and job opportunities as they are not in the political network of the party (Yusuf, 2010). Hence, municipal services become inefficient.

2.12.1.17 Infrastructure

In South Africa, urban infrastructure funds are distributed to local governments to rectify infrastructural imbalances inherited from the past (Lubbe et al., 2016). But these grants are not fully utilised, and they are sent back to the National Treasury. The following were described as the key reasons for under-spending: a lack of expertise in project management and project team leaders not tracking and assessing the projects and handle adjustments within the project framework (Lubbe et al., 2016). Hence, in line with Section 20 of the Division of Revenue Act (DoRA), municipalities which are continually under-spending risk losing this infrastructure grant to better-performing municipalities (Muthotho, 2007). This is evident in the Human Settlement Annual Report 2019-2020, where the under-expenditure resulted in R516.3 million, which translates to 1.52% of the total allocation.

The effectiveness of an infrastructure project depends on the methods used, such as the grant being incorporated into such a project and the financing being connected to the Integrated Development Plan (IDP), enabling the community to recognise appropriate and important projects (Smit et al., 2011). Hence, the DPLG states that MIG shall be performed at municipal level. This includes planning, budgeting, financial control and the management of operations. This is supported by Mhlaba (2018) who states that the planning, coordination, provision and regulation of the main municipal services should be transferred by the municipalities to a central administration entity with a separate budget.

External factors selected and addressed in the sense of cost controls will be provided in the next section.

2.12.2 External factors

To represent the interests, motivations or needs of members or their leadership, an organisation does not simply evolve. The uncertain environmental status therefore has
an impact on the systems of the organisation (Amara and Benelifa, 2017). External features are named regarding their external ties with the organisation. They refer to a collection of external variables that create factors that can affect the management of the company. As a consequence, these external features are known as contingent variables (Amara and Benelifa, 2017). In this study, the researcher considered the unpredictable market environment, environmental uncertainty, customer demands and political influence.

2.12.2.1 Accountability

Accountability calls on public servants to be accountable for their conduct, report on them, provide justification for them and bear accountability for the results of municipal financial expenditure (Sibanda, Zindi and Maramura, 2020); (Selepe and Magagula, 2023). According to Sibanda, Zindi and Maramura (2020), SA municipalities are less accountable for their financial management and performance, and they further elaborate that accountability requires internal controls for maintenance and enhancement.

A study was conducted by Hofstetter, Bolding and van Koppen (2020) addressing failed water infrastructure delivery through increased accountability and end-user agency. This study explained the connection between municipal officials and the community. The following figure shows the route to accountability between politicians, contractors and the public service provider. The figure shows the link between politicians and communities is poor and departmental officials are held extremely accountable to the politicians who either directly or indirectly appoint them.

Figure 2.3 Accountability relations in the provision of housing
A stronger accountability link between departmental officials and potential end-users is facilitated by the transparency of project-related decisions and contracts that are given out. Increased interaction between end-users and departmental officials throughout the planning and building of new infrastructure results in a more realistic assessment of the current services provided by authorities and fosters deeper interpersonal ties (Hofstetter, Bolding and van Koppen, 2020).

The HSU’s core main service is the equitable provision of houses and regulation of expenditure associated with those provisions. Therefore, the above diagram clearly shows the accountability of each participant involved in the processes under each project undertaken by this unit. According to Hofstetter, Bolding and van Koppen (2020), the accountability of commercial service providers to the end-users (community) is increased. By giving the end-users a role in monitoring and approving the payments of consultants and contractors, this directly increases the agency of end-user community members. All pertinent information should be provided to all end-users from the beginning, not just with a small, carefully chosen group, to reduce the possibility that such processes would be taken over by local elites. The interaction between departmental officials and potential end-users is more accountable when
project-related decisions and contracts are given with transparency Selepe and Magagula, 2023).

2.12.2.2 The market environment

The market environment deals with factors involving purchasing, distribution, product value engineering, competition, customer expectations and demands (Ambe and Badenhorst-Weiss, 2012). The aim is to maintain good customer relationships. Smith and Seyfang (2013) further clarify that the market environment also involves new or substitute products and labour unions, which both form a great part of the competition. These factors can be difficult to predict and control, although the market environment is inclusive of factors that determine the external environment (Ambe and Badenhorst-Weiss, 2012). The purpose of this research and focus is examining the external environment within the context of cost control.

To adapt to changes in the environment, organisations must change tactics. The structural approach to the transition in an organisation, however, indicates that the structure of the organisation influences the learning plan for the organisation and the capacity to adapt to changes in the environment. To achieve greater organisational cohesion and efficacy, all facets of the organisation, such as structure, policy, method, staff, community and so on, need to be altered at the same time.

Organisations are slow to adjust to the rapid changes in the business environment (Rothwell, 2010; Rothwell et al., 2010). The socio-political context of SA greatly affects the markets within which local businesses operate (Ehlers and Lazenby, 2004). SA’s socio-political background includes a high crime rate and violence, economic inequality and great expectations for change (Ehlers and Lazenby, 2004). SA organisations need to understand the market in which they operate to be competitive in the global environment (Govender, 2009). Therefore, organisations need to respond to these market forces to remain competitive. Hence, Khuzwayo (2017) and Friedman, Friedman and Pollack (2005) assert that organisations need to keep up with
technological advances and adopt advanced management techniques for their operations. Khuzwayo (2017) further explains that the challenges of modernisation, which involve keeping up with market changes, have collapsed many organisations.

As SA municipalities are slow to react to the ever-changing market forces, they need to adapt to modern cost control tools to do their operations. The SA local government needs to learn that failure to react effectively to challenges will eventually result in extravagant losses (National Treasury book, 2015:5). Hence, the study by Khuzwayo (2017) emphasises that SA municipalities need to be versatile in modifying and adapting to new approaches.

2.12.2.3 Environmental uncertainty

The business environment is increasingly unstable and dangerous today due to factors including quick technical advancement, more varied consumer wants and fierce market competition (Yu et al., 2018). In response to the unpredictable environments, some businesses develop successful supply chain risk management (SCRM) strategies, such as flexible pricing and product lines, sourcing strategies, while others fail to do so (Yu et al., 2018). Sreedevi and Saranga (2017) state that versatility makes an adaptable reaction to environmental uncertainty and operational hazards, it is vital to understand when and how such a response truly occurs.

The impact of environmental uncertainty on the expansion of accounting techniques in management makes it one of the first conditional variables to be examined. When there is little perceived risk, management can generate rather accurate market projections (Shahzadi et al., 2018). Thus, Amara and Benelifa (2017) assert that the level of change in accounting management techniques is influenced by the degree of environmental unpredictability.

Although the HSU’s objective is the provision of houses, to do this it needs to understand the rental possibilities given in the phase of housing transfer and thus formulate mechanisms to discuss the supply and demand side of supply. It needs to build state capacity for structuring more integrated systems creation and, where possible, support for co-production, modes of distribution of accommodation and
settlement making. Because of the unforeseen situations created by lockout legislation, the study also provided differences. This resulted in the under-spending of capital assets in all four systems used for success assessment by the HSU.

2.12.2.4 Customer demands in the department

The Human Settlement Annual Report 2019 reflected that the environment for service delivery needed to be improved. This includes the following services: Permanent residential housing should be accessible to all republican citizens and residents on a progressive basis; having sound mechanisms protecting both internal and exterior privacy, and offering sufficient defences against elements like drinking water, adequate sanitation and the provision of domestic electricity. Khuzwayo (2017) stated that there is a need for municipalities to review their service delivery performances, which has been consistently deficient. This is evident in the Human Settlement Annual Report (2019-2020:26), which showed that out of 401 service delivery complaints by the public, only 201 cases have been dealt with. The report further shows that there is a rise in the number of complaints about the service delivery level in the department.

2.12.2.5 Political influence and accountability

Local government still faces the challenge of poor responsiveness to their needs due to the inaccessibility of the democratically elected representatives (de Visser, 2010). The functioning of municipal political parties and the factionalism within parties has resulted in an unconducive political climate. The functioning and procedures of the municipality are frequently impacted by the connection between administrative leaders and political leadership (Mhlab, 2018). There have been several reports in municipalities about the inappropriate interference relating to fraud and corruption. This is caused by the action where parties populate the municipal administration by appointing a branch chairperson as an official in municipal administration (de Visser, 2010).

There have been numerous service delivery protests by local citizens due to the shortfall by local government councillors to provide service delivery (Mhlab, 2018) (Thusi and Mashabela, 2023). These protests are fuelled by political party promises for a better life. Hagen and Vabo (2005) state that political leadership plays a crucial
role in keeping fiscal control. Plata-Díaz et al. (2014) argue that one of the major factors influencing cost controls is the impact caused by political questions, seeking to influence decisions of municipal managers and reshape their services. Plata-Díaz et al. (2014) believes that the high political fragmentation influences the processes within local government. Political parties look to remotely control the operation of municipalities by influencing the appointment of staff and tender manipulation (Mhlaba, 2018). The consequent result is that service delivery delays are due to competing structural dynamics between the city administration and the municipal political level (Tshandu, 2010).

These fragmentations can lead to extravagant expenditure in the long term by local municipalities, therefore putting pressure on cost reduction measures (Ashworth, Geys and Heyndels, 2005). The more political parties are involved with a decision process, the higher the delays and costs are increased. This results in delayed policy changes, delayed fiscal consolidations and extravagant deficits. Khanyile (2016) further explains that councillors and representatives of the party should be politically accountable. The structures of political parties should shift their attention from deployment of suitable candidates in the municipal political office (Mhlaba, 2018).

The accumulation of poor budgetary planning and poor workmanship are the critical factors that cause financial constraints, thereby increasing the need for cost controls (Greyling, 2016). A study by Khanyile (2016) reveals that poor financial control drives the link between lack of controls and unsatisfactory services. However, the 2007/08 audit outcomes revealed that financial management has improved in municipalities where the opposition party pressures the ruling party (Pressly, 2009). Hence, the following section will provide for studies that have been conducted on the political culture and influence on municipalities.

Plata-Díaz et al. (2014) conducted an empirical study that examined the political influence on the municipal administrative division in Granada, Spain. A final sample of 685 municipalities in Spain was included in this survey study. This study identified five explanatory independent variables to be analysed and measured using the conditional fixed-effects logistic regression. For the collection of data, the survey method was employed and data was collected directly from the sources, namely Spanish economic
and social yearbook, directorate general, budgetary and balance sheet, the survey of infrastructure and equipment and the Ministry of the Interior that publishes municipal elections. de Visser (2010) conducted an empirical study on the SA municipalities' political-administrative interface.

The main aim of the study by Plata-Díaz et al. (2014) was to give clarification about economic and political factors that hamper municipal waste collection services. These factors were examined to show their impact on the provision of waste management services. This study revealed that these factors favours the redesign of the service delivery forms. This redesign is usually associated with outsourcing contractors. The results of the study showed that because of economic factors including high costs and fiscal stress, municipalities are usually left with no choice but to contract out. This is done to address municipal problems associated with sustainability and independence. The studies by Ziegenhain (2015) and Collier (2013) which analysed the influence of political interference and accountability on the municipal context revealed that a lack of accountability by politicians contributes to a high level of mistrust. This results in a lack of trust by public servants in their municipalities (Collier, 2013).

The following section will provide and discuss the theoretical framework that shows the relationship of the above-mentioned variables with the proposed contingent framework.

2.13 Theoretical framework

This study adopts the contingency theory developed by Fred Edward Fiedler in the early 1960s. This theoretical approach identifies the appropriateness of an accounting system given the nature of circumstances in the organisation (Otley, 2016). The theory of contingency is founded on the idea that there is no uniformly suitable accounting process that applies to all factors of every organisation (Abu Afifa and Saleh, 2021). This theory also suggests that there is no easier way to plan, lead or handle an organisation other than through contingent variables (Amara and Benelifa, 2017).

A study on the adoption of the theory by McAdam, Miller and McSorley (2016) on the role of Quality Management(QM) in improving strategic alignment within SMEs using contingency theory instead of implementing best practice strategies. Furthermore, the
strategic alignment between SMEs and their environments was found to be shaped by the interaction of contingency variables (strategy, culture, lifecycle and customer focus) and their respective typologies with QM procedures. Rather than following a general best practice approach, this moulding process based on contingency techniques was specific to each SME and its distinct context. Findings of another study by Safari and Saleh (2020) on the key determinants of SMEs’ export performance: a resource-based view and contingency theory approach using potential mediators, support and demonstrate the importance of the various factors’ effects on the export performance of enterprises. Understanding the efficient internal and external export drivers and mediators in a developing market and improving SMEs' export performance are some of the scientific contributions and major consequences of this research. The findings on contingency theory demonstrate this method's capacity to identify the primary determinants of each variable under consideration and their impact on performance.

In this theory, cost controls are defined as cost management approaches that facilitate better management of operating cost and keep them to their acceptable limit. The theory discusses a variety of factors involved in deciding on suitable control practices that benefit management (Shahzadi et al., 2018). Their role in an organisation, however, depends on a variety of variables which may be either technological advances or an organisation's infrastructure (Shahzadi et al., 2018). Therefore, this theory asserts that an organisation should consider both internal and external factors in the alignment of an accounting system (Kudanga, 2018). More factors will be included to examine their impact on operational performance, which further supports the acceptance of this theory in this study.

The hypothesis that internal and external environmental variables impact organisations differently is the underlying contingency principle. Thus, Shahzadi et al. (2018) state the management control framework system is influenced by contingency irregularities like organisation policy, external climate and structure of business. The contingency approach assumes that the management control system strategy and procedures are informed by the context in which they are implemented.

Understanding how the system influences processes and contributes to contingent organisational performance outcomes is the primary goal of this literature on
contingency theory (Shahzadi et al., 2018). It is also important to be acquainted with the various types of organisational framework control problems that can be imposed when evaluating management responses to enforce control over different actions. When designing the analysis and measurement instrument, this data will be further refined.

2.14 Summary of the chapter

The history of SA municipalities was first discussed in this chapter, including the legislation governing the spending and municipal financial management. Furthermore, it put a lot of emphasis on cost control's theoretical features. Cost control concepts and techniques were also discussed, including the definition and implication within SA municipalities and organisational efficiency. The subjects covered in operational performance include the measurement of operational performance, which has also been addressed in the municipal sense. Three performance measurement techniques were addressed under municipal operational performance measurement, including a balanced scorecard, a logical approach and a benchmarking approach. The benchmarking approach was found to be the one used by most municipalities in measuring their operational performance.

The literature also indicated the impact of cost controls on operational performance, examining municipal performance in the context of cost controls. This section also provided the internal and external factors that influence cost controls in improving operational performance. The discussion of these variables has shown that internal factors such as IT, teamwork, internal auditors, transparency and organisational culture are major contributors to the effective use of cost controls.

This chapter further explored external factors, which included the market environment, political influence and infrastructure. This section of the chapter revealed that political influence is the driving force behind the application of cost control and operational performance.

In this chapter, while internal and external factors are prominent, other aspects of cost control were also discussed. The literature review also revealed that there is a
knowledge gap with respect to the examination and application of cost control systems in the municipal context.

The outline of the research methodology used in this study, the summary of the data collection methods used and the rationale behind the selected research methods used in this study are discussed in the following chapter.
CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The previous chapter analysed the related cost control literature, the factors affecting cost controls to enhance operational efficiency and presented an overview of the HSU. This chapter's goal is to provide a description of the study technique utilised to fulfil the research aim, which is to examine the role of cost controls on enhancing the operational effectiveness of the eThekwini HSU. To recap, the objectives of the study are as follows:

- To investigate what cost control techniques are applied by the eThekwini HSU
- To investigate factors influencing cost controls on improving operational performance in the eThekwini HSU
- To investigate the effectiveness of cost controls on improving the operational performance of the eThekwini HSU

To address the objectives of the study, this chapter outlines the scientific methods and techniques applied to achieve the aim. The chapter begins by outlining the research design and approach followed by addressing the population, sampling, data collection and data analysis methods. Thereafter, the process of ensuring the validity and reliability of the instruments was outlined. Lastly, the anonymity, confidentiality and ethical considerations of this study are presented.

3.2 Research design

It is critical to develop a plan that logically and cogently unifies the study's various components to properly solve the research challenge. The selection of the research approach is a crucial step in the design process because it affects the data that will be used in the study and how it will be collected (Sileyew, 2019). The study adopted the design of a research onion, designed by Saunders, Lewis and Thornhill (2012) and followed the steps and methods of the research onion to collect data (Saunders, Lewis and Thornhill, 2012). This method was developed by Saunders et al. (2012) to define
a useful progression that can be used in the construction of a research technique. The research onion asserts that a methodical study begins with its research philosophy and progresses via its research approach, research strategy, timeframe and data gathering methods to achieve the research aim.

The steps in the research process that should be followed in accordance with the research onion are described below. The methodological process begins with research philosophy and research approach, then moves on to research strategy, research methodologies, and so forth. Therefore, this research uses the onion model illustrated in the figure below.

Figure 3.1 Research process

Source: Saunders et al. (2012)

The description of the research onion and how it relates to this study as the way of conducting this research is expanded in the section following.
3.2.1 Research philosophy

Research philosophies and methodologies help researchers determine the most effective research methods (Sekaran and Bougie, 2016). However, the researcher's perspective on what constitutes a useful research process and a proper development of knowledge has the most impact. The philosophy chosen must be impacted by considering what is actually occurring (Saunders et al., 2012). A research paradigm is the broader view of philosophical approach to knowledge and the world for informed research designs (Kudanga, 2018). The research paradigm examples given by Saunders et al. (2012) in the research onion include positivism, realism, interpretivism, subjectivism, objectivism, radical structuralist, radical humanist, functionalist and pragmatism. Positivism, interpretivism and pragmatism are the most used philosophical assumptions and will be discussed below.

Underlying this study is a positivism research paradigm. The following section provides further discussion on the three research philosophies for better justification of the chosen philosophy of this study.

3.2.1.1 Positivism

Positivism and interpretivism are the two most radical and mutually exclusive philosophies about the nature and sources of knowledge (Antwi and Hamza, 2015). The theory of positivism is said to be based on science. This demonstrates that the positivist philosophy is centred on quantitative evidence that can be statistically analysed (Sekaran and Bougie, 2016). Positivism seeks to develop generalisable hypotheses or interpretations based on the rules of nature. Positivism frequently involves formulating a hypothesis tested using well-established theory throughout the course of the research process (Swain, 2017).

Studies conducted according to positivism have an independent researcher and do not take human motives into consideration. Positivists hold that reality can be quantified using properties that are independent of the research methods used at the ontological level and that reality is provided objectively. This implies that knowledge is impartial and measurable. Therefore, a positivist researcher develops theory through deductive reasoning from which hypotheses develop and are tested. Then, using inference from
experiments, theory is built to produce laws regulating nature. According to this philosophy, theories can be developed using pre-existing ones to develop a study plan for data collection. These theories can be investigated and either fully or partially verified, or refuted, leading to the development of a hypothesis that can subsequently be tested by additional research (Saunders et al., 2012).

Due to the nature of the study, conclusions can be drawn that use positivist analysis's key elements. As a result, this study incorporates the components of a positivist analysis.

3.2.1.2 Interpretivism

People are seen as different from physical phenomena in interpretivism because people may be studied in ways that physical phenomena cannot be. Interpretivism places a larger premium on context-related in-depth variables and elements. When forming different social realities, different cultures, circumstances, and historical eras were taken into account by interpretivism.

Contrary to positivism, which seeks to give clear, generic laws that can be applied to everyone independent of some key elements and conditions, interpretivism aspires to incorporate richness in the taught insights. (Alharahsheh and Pius, 2020). The qualitative researcher conducts their investigations using the same philosophical presumptions as the interpretivism paradigm (Creswell and Poth, 2018).

A naturalistic method of data collecting, such as interviews and observations, forms the foundation of the interpretivist approach. This study makes use of close-ended questions with few open-ended questions, and based on the above, the interpretivist paradigm will not be relevant in this study.

3.2.1.3 Pragmatism

Pragmatism incorporates both positivism and interpretivism in a single study given the nature of the research questions (Creswell and Poth, 2018). According to the pragmatism paradigm, various approaches can be employed when conducting research. This indicates that several points of view exist. Each research study presents the pragmatist with a potential range of philosophies (Saunders et al., 2012). According
to the pragmatist viewpoint, research may be carried out for specific purposes such as to uncover the answers to questions. Research questions are therefore the most significant factor in determining the research philosophy, according to the pragmatic research philosophy (Coe et al., 2017). Deductive reasoning must be used in addition to the inductive method to properly analyse a unique phenomenon and resolve a practical issue.

As a result, if the research question leaves any room for uncertainty regarding one of the philosophies, this supports the pragmatist's claim that various philosophies can be used successfully in a single research study (Saunders et al., 2012).

This research is quantitative and consists of closed-ended questions for data collection, and the approach is not flexible. Few of the questions require participants to give subjective views given the research instrument. Therefore, this research will not adopt the pragmatist philosophy based on the nature of this research method.

3.3 Nature of the study

This research follows a descriptive and exploratory approach. This kind of research is based on polling data from a population at a certain moment. This is different in comparison to longitudinal analysis, which tracks people over time. In this study, a cross-sectional analysis proved helpful for getting a sense of the overall "picture" at the time the study was conducted (Kumar, 2019).

3.4 Research approach

In research, there are two general theories with substantial differences in research methodology, the deductive and inductive approaches. While the inductive approach is flexible and frequently connected with the qualitative technique, the deductive approach is the fixed approach to data collection based on the quantitative method (Swain, 2017). The deductive strategy often works in opposition to the inductive strategy. The researcher starts with theory and hypotheses prior to gathering data or analysing results. The deductive strategy is a method for testing hypotheses that starts with a theory or generalisation that already exists and tries to ascertain, through investigation, whether it correlates with cases. Therefore, it is used mostly with the
positive theory discussed above. The inductive approach is a type of reasoning that involves looking for correlations in data collection to make inferences and develop hypotheses. The goal of inductive researchers is to construct their hypotheses or a logical framework from the data they gather. Grounded theory is the name for the theory that is based on inductive theory (Hair et al., 2019).

The way that pre-existing literature and theory are used to guide the research is one of the fundamental distinctions between deductive and inductive methods (Creswell, 2014). The deductive method is intended to put a theory to the test. Before gathering data, topics, themes and correlations are thus identified through literature. The inductive method, on the other hand, develops a hypothesis as the study goes along. Deductive reasoning is more concentrated, whereas inductive reasoning is more open-ended and exploratory by its own nature, especially at the beginning of the process (Swain, 2017).

Despite the apparent differences between both research strategies, inductive and deductive approaches are frequently switched in studies. This multi-strategy movement is known as the mixed techniques approach, according to Creswell (2014). It has been proposed that combining deduction and induction within a study is not only entirely viable but frequently a beneficial strategy (Saunders et al., 2012).

The above discussion shows the deductive approach is the most suitable for this study. This study made use of a questionnaire instrument, used to achieve the aim and the research objectives. This questionnaire targeted four sections that are directly involved with the application of cost controls from internal control (10), budgets (13), accounts (17) and finance (4). All four of these sections answered the questionnaires if full.

3.5 Research strategy

There are quite a few research methodologies with distinguishing features, including case studies, experiments, surveys, action research, grounded theory, cross-sectional studies, longitudinal studies, ethnography, archival research and participatory inquiry (Collis and Hussey, 2003). This research used a case study as a research strategy. On the topics covered by the various types of case study, case study research may vary, including descriptive, casual and exploratory case studies (Rule and John, 2017).
This research technique involves the empirical analysis of a "bounded system" (bounded by time, context and/or place), or single or numerous cases across time through the collecting of in-depth, detailed data from a variety of sources (Coe et al., 2017).

The case study uses an exploratory method to give detailed information and knowledge of the various ways the independent variable might be applied to the dependent variable. It assists in identifying the issue's nature, its causes, how to address them and potential solutions (Schell, 1992, cited by Thango, 2022). A case study allows for an open-ended and flexible approach to data collection. A well-defined, formalised technique must be used for the case study's investigation, which may involve looking at a variety of sources of data or cases (Schell, 1992).

This case study provided an opportunity to investigate the role of cost controls on improving the operational performance at the eThekwini HSU. The case study laid out the cost control techniques and factors influencing cost controls in improving operational performance. Each variable was analysed independently regarding its influence on the operational performance. The variables analysed were categorised into internal and external respectively. These included total quality management, organisational structure, ethical decision-making, internal auditor training and ethical behaviour, staff attitude, relationship between employees and management, staff segregation of duties, staff transparency, information management, outdated systems, teamwork, staff communication, leadership, organisational culture, staff adequacy and infrastructure. External variables included accountability, market environment, environmental uncertainty, customer demands and political influence.

The variables discussed above each contribute to giving a foundation from which to examine all elements influencing cost controls in improving operational performance as stated in the literature. The study investigates the factors that the literature claims have an effect on cost controls and operational performance. By using explanatory approach, the case study gives detailed information and knowledge of the many effects of the independent variable on the dependent variable.

The above section has outlined the strategy that the research uses to investigate the role of cost controls on improving operational performance, using the above-mentioned
variables. The case study in the form of an explanatory strategy is used to investigate all the factors influencing cost controls in improving operational performance. The methods of undertaking this research are provided in the following section.

3.6 Measurement of variables

Since this research also focuses on operational performance, it was crucial to establish variables for evaluating such performance. Due to the limited studies on operational performance within this particular unit, it was imperative to utilise the unit's pre-existing performance measurement approaches. Consequently, in this study, we formulated variables based on departmental performance measurement approaches, directly sourced from the Human Settlements annual report (2019-2020).

3.7 Research method

A research method specifies the steps to take to collect the information needed to address the research topic, acting as a framework or guide for executing the research problem (Kumar, 2014). This research is a case study and to collect, measure and analyse data, this study employed a quantitative approach. This method is further explained to give insight into the process of quantifying the data collected.

This research is exploratory based on its aim to explore the study context and to gain clear understanding of each research phenomenon in this study, that is the cost control techniques and factors influencing these controls at eThekwini HSU. This research makes use of secondary data gathered through the adoption of census data. The data was collected at one-point in time, which justifies this study as being cross-sectional (Kumar, 2019).

3.7.1 Quantitative method

Quantitative research uses questionnaires, surveys and experiments to collect data that is tabulated in numbers and statistically analysed (Antwi and Hamza, 2015). The primary purpose of quantitative research is to provide data that researchers can utilise to make predictions and confirm or validate existing relationships. In this study, the quantitative research approach was utilised to collect, analyse and integrate data from
questionnaires. The following by White and McBurney (2012) are some of the advantages of a quantitative research method:

- Due to its capacity to employ statistics to measure data, it can be used to test hypotheses in experiments. As a result, it is data-driven and can provide a wealth of information.
- The research can be conducted on a large scale and covers a wide range of topics, providing a wealth of information.
- The method provides objective data on participant knowledge and skills.
- Collected data is simple to compare and analyse.

Quantitative analysis and deductive methods are frequently linked. The most prevalent type of analysis is statistical, which involves assessing the results of a theoretical application. The research will employ an established hypothesis to explain the results rather than creating a theoretical framework as a potential consequence. Results will also be compared to current scientific knowledge because the researchers are almost certainly adopting a hypothesis that has been used by many other researchers (Wilson, 2014). This study uses the quantitative method to collect, analyse and integrate data obtained from questionnaires, and the approach was based on a quantitative judgement.

3.7.2 Qualitative method

The foundation for inductive reasoning and the development of hypotheses are the facts gathered for informed analysis. The creation of hypotheses to account for situations and occurrences is the overall goal of qualitative research analysis. Although qualitative research can develop theory, add to it, and even validate it, the emphasis is often on theory formation and elaboration. According to Hair et al. (2019), all qualitative analysis is grounded in the idea that it is built on data gathered about the context or subject being studied.

Recognising, examining, comparing and interpreting patterns and themes are the main goals of data analysis for qualitative data. There are several procedures that are often completed in the correct order while collecting and analysing data for quantitative studies. The antithesis of this is a qualitative analysis, which employs an iterative
process in which the data is re-examined as new issues and connections are identified, even when a broad comprehension of the circumstances surrounding the study becomes apparent. In fact, in qualitative investigations, data gathering and interpretation are frequently done simultaneously, with analysis leading to additional data collection and additional analysis leading to greater data collection (Hair et al., 2019).

This study had a few open-ended questions that did not require any objectivity in the data analysis. The open-ended questions were only included to give more knowledge on the topic; therefore, in conclusion the study analysis was not qualitative.

### 3.8 The target population

A population is a complete set of the research project's important objects or components; it possesses the data the research project is intended to gather (Hair Jr et al., 2011). To solve the problem and accomplish the study's aims, the researcher must first comprehend the pertinent group. The group from which the study hopes to draw its results is referred to as the target population. This is the group against which the research should ideally generalise its findings (Kumar, 2019). Although the terms "population" and "target population" are sometimes used to mean various things, the relationship between the general population, the target population and the accessible population may be demonstrated practically (Asiamah, Mensah and Oteng-Abayie, 2017) as illustrated below.
In this research, the target population comprised 44 employees working in four distinct sections within the eThekwini Human Settlement Unit (HSU): Internal Control, Expenditure Control (Budgets), Expenditure Control (Accounts), and Expenditure Control (Finance). These sections were selected based on their direct involvement in the application of cost control techniques, making them pivotal to the study's objectives. The selection of this specific group of employees was deliberate, as their roles and responsibilities align closely with the research objectives, which seek to explore the role of cost control on improving operational performance within a local government context. Their in-depth knowledge and daily involvement in financial and budgetary matters make them uniquely qualified to provide valuable insights into the research questions. By concentrating on this targeted group, the research aimed to gather comprehensive and relevant data that would facilitate a thorough investigation into the effect of cost control techniques on operational performance. This focused approach ensured that the findings would be directly applicable to the specific context under study. The number of employees in each of the four sections are displayed in Table 3.1., which all shows the total population for the study.

Table 3.1 Population according to each section

<table>
<thead>
<tr>
<th>SECTION</th>
<th>POPULATION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Asiamah et al. (2017)


<table>
<thead>
<tr>
<th>Internal Control</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expenditure Control (Budgets)</td>
<td>13</td>
</tr>
<tr>
<td>Expenditure Control (Accounts)</td>
<td>17</td>
</tr>
<tr>
<td>Expenditure Control (Finance)</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>44</strong></td>
</tr>
</tbody>
</table>

### 3.9 Sample method and size

Kumar (2019) asserts that the act of sampling involves choosing a small group of people from a large, specifically targeted population who will be utilised to provide estimates for the unknown data for the entire sample population. By gathering data from a subset of the population rather than the entire population, sampling techniques offer several strategies for decreasing the amount of data needed.

According to Taherdoost (2016), random and non-random are the two sampling strategies commonly known in research. In random sampling, there is an equal chance that each component will be chosen. The most popular random sampling techniques include simple random sampling, systematic sampling, stratified random sampling and cluster sampling. Non-random sampling denotes the possibility that, in some circumstances, certain members of the population may not have any chance of being included in the sample at all. Convenience sampling, sequential sampling, judgmental sampling or purposive sampling, purposive sampling and snowball sampling are non-random sampling techniques. Therefore, non-random sampling was necessary for this research as some eThekwini HSU employees were not directly involved with cost control techniques.

Due to the small number of employees under the targeted population, the research adopted the census method to increase participation and to get in-depth answers to the questionnaire. This means that every employee under the four mentioned sections was included as part of the target population. This method helped to meet all the objectives of this study and respond to the research questions. The census was made up of 44 employees in expenditure [finance (4), budget (13), accounts (17)] and internal
control 10 as they are directly involved in regular application of cost control techniques. Baffour et al. (2012) defines census as a process that produces an official count of a nation's population on a regular basis, down to the minutest geographic level. The purpose of a census is to give users with pertinent demographic statistics context, but it follows that this data must live up to users' standards for quality. Consequently, it is crucial to examine and evaluate the quality of a census to promote confidence in the data it produces as well as to prepare for future data collecting. The census is also the finest, if not the only, source of data on small demographic groupings in terms of size or membership (Baffour et al., 2012). Hence, this study adopted the census method.

The reason for the inclusion of internal control on the census is the regular interaction of the cost control techniques applied by the eThekwini HSU and as part of staff's job description in ensuring compliance. The expenditure team (budgets, accounts and finance) are directly involved with exercising cost controls during the processing of payments, balancing of the HSU accounts and cost estimations during the budgets allocations. They act as a bridge by management for decision-making. Therefore, their inclusion on the census will yield more accurate and reliable responses.

### 3.10 Data collection instrument

#### 3.10.1 Data collection

Data collecting is the methodical gathering and measurement of information on certain variables to provide a response to the study question. It permits a convincing and trustworthy response to the research questions. There are primarily two sources of information, primary and secondary information (Kumar, 2019). Primary data is facts independently discovered and gathered in the field by an investigator. Srivastava and Rego (2011) define primary data collection as gathering information directly from study participants via telephone or in-person interviews, postal surveys or questionnaires in order to answer a certain topic or hypothesis. In contrast, secondary data collecting involves doing an empirical study on information that has previously been obtained or collated in some way. Census data, administrative data and government surveys are examples of secondary data.
3.10.2 Research Instrument

The phrase "research instruments" refers to various tools or techniques used to gather information from respondents. Research instruments like surveys, questionnaires, interviews, observations, focus group discussions and experiments are used to get reliable data (Sekaran and Bougie, 2016).

This study made use of the questionnaire instrument for data collection. This instrument is further discussed in the following section, including how it was utilised for data collection and the details of the instrument.

3.10.3 Questionnaire for data collection

A questionnaire is a written set of questions that the respondent is required to answer. With a questionnaire, participants read the questions, consider the expectations and then record their answers (Kumar, 2019). Different definitions of questionnaires exist, such as when respondents record their responses to questions. There are also general conceptions of what constitutes a questionnaire, as answers to some questions may be provided orally or in person (Saunders et al., 2012). The questionnaires are advantageous for reaching many individuals across a vast geographic area, respondents have time to reconsider their statements before answering and the cost of administration is relatively inexpensive (Swain, 2016).

A questionnaire instrument consisting of a series of ready-made questions was used in this research. This allowed for the collection of information from sample responses. In this study, questionnaires were utilised because they give a uniform form on which facts, remarks and views can be written down, and they are a trustworthy source of information from respondents. However, one of the key disadvantages of questionnaires is that they have an inherent rigidity due to the difficulty of changing the procedure once the questionnaires are disseminated, as well as there being a chance some questions will receive evasive or no answers.

A questionnaire ensures anonymity and confidentiality for the respondents. This measurement tool improves the possibilities of gathering correct data when sensitive questions are asked. The instrument was categorised into sections to allow for better
understanding by respondents. These structured sections are specific to each research question and are discussed below.

3.10.4 Design and layout of the research instrument

This study's research questionnaire (see Appendix B) had four sections designed to offer the information needed to answer the research questions.

The first segment (Section A) focused on personal information (questions 1-6) and asked respondents to provide general information. Respondents were prompted to choose one response from a list of options.

Section B included cost control techniques applied by the eThekwini HSU. This section (questions 7-18) was designed to determine the cost control techniques applied by the eThekwini HSU. This section was linked to research objective one: Investigate what cost control techniques are applied by the eThekwini HSU. The respondents were given a list of modern cost control techniques to choose from. The survey's questions used a five-point Likert scale and, when appropriate, presented statements from which respondents could choose. Using a Likert-type scale of 1 for "strongly disagree" to 5 for "strongly agree," respondents were asked to rate how much they agreed with the assertions in questions 1 through 7. The respondents' level of agreement with the assertions was requested relating to the techniques applied in the unit and if there were any other cost control techniques not listed on the instruments to indicate these in the space provided.

The third segment (section C), questions 19-41 was created to assess respondents' awareness of the topic from every section in terms of the internal and external factors that influence cost control in improving operational performance. This section was linked with research objective two: Investigate the factors influencing cost controls in improving operational performance at the eThekwini HSU. A Likert-type scale with a range of 1 to 5 was used to ask respondents to score their level of agreement with a series of statements, with 1 denoting strong disagreement and 5 denoting overall agreement. Respondents also rated how much they agreed with statements on the elements that influence cost controls in operational performance improvement. These
were closed questions and respondents were given space in which to write any others factors that may not have been covered in the questionnaire.

The fourth segment (section D), questions 42-62, examined the effect of cost controls in improving operational performance, which was linked with the last objective of this research, objective three: Investigate the effectiveness of cost controls to improve operational performance at the eThekwini HSU. Respondents were provided with statements with which to provide their level of agreement. These were also provided using a Likert-type scale used from the previous segment. The statements were divided into four categories, namely: Administration, Human settlement policy, strategy and planning, Human settlement delivery and support and Housing development finance.

In the final question, respondents had the opportunity to share their own views on subjects that open-ended questions would not have covered.

3.10.5 Cover letter

The questionnaire came with a cover letter explaining the study's topic and aim as well as a gatekeeper’s permission letter. The covering letter provided participants with a brief overview of the study's purpose as well as information about the researcher. The participants were assured of their anonymity, confidentiality and rights protection in the enclosed letter. The authorisation letter from the gatekeeper, which was also attached to the questionnaire, permitted the researcher access to several faculties and departments within the institution.

3.10.6 Letter of informed consent

The study complied with respondents’ rights by collecting consent letters (see Appendix D) sent to them before the study began. Only when informed consent was acquired was data collected. The questionnaires were supported by a letter of approval from the Institutional Research Ethics Committee (IREC). Anonymity and secrecy, which are key requirements of ethical behaviour, were observed. Before completing the consent form, the participants were given a thorough explanation of the study's findings. To protect anonymity, the questionnaire did not include the respondents'
names, phone numbers, addresses or other personal information. Respondents were informed that participation in the study was entirely voluntary, that they had the right to withdraw at any time and that they would not be exposed to any dangers, medical examinations or situations that could be hazardous to their mental or physical health.

3.10.7 Pretesting the questionnaire

Pre-testing is a small-scale or preliminary study that is carried out to evaluate the viability, time, cost and adverse occurrences in order to build an appropriate sample group. An instrument for research is first tested by a thorough assessment of the respondents' understanding of each topic and its significant (Kumar, 2019). The chances of the questionnaire being misread are significant if no pre-testing is done. Inadequate responses, errors or inaccurate responses are all possible outcomes. Pre-testing was the first step in acquiring data for the study. A pre-test of a small-scale or preliminary study was conducted to assess feasibility, time, cost and adverse events, as well as to confirm the proper sample size, in order to improve the study design before a full-scale research study was conducted. This was used to discover any errors in the measuring methodologies and operationalisation of the independent variable(s), as well as any unclear or ambiguously phrased items.

The pretesting took place when permission was given by the university. This was a way of validating the questionnaire instrument used (Anon, 2016). An expert driven pre-test was necessary to see if the questionnaire works accordingly and if any changes were necessary (Anon, 2016). The expert-driven pre-test constituted of only five staff members who have the expertise in research. They gave their opinions and made recommendations relating to including the questionnaire's layout, length, transparency of questions, simplicity of instructions and language.

3.10.8 Administration of the questionnaire

The study made use of a questionnaire instrument with closed-ended questions. Data was collected from every individual within the target population. Questionnaires were delivered both by hand and via email. Due to an unsatisfactory response rate from the emailed questionnaire, the hand delivered questionnaires were then issued to the targeted population. Both mailed and hand delivered questionnaires were written in
English and accompanied by a consent letter and covering letter, which explained and gave an introduction of the questions to the respondent (De Vos et al., 2011). The researcher collected the questionnaires directly from the offices of the eThekwini HSU.

3.10.9 Response rate

The target population comprised of internal control and expenditure employees at eThekwini HSU. All employees in these sections were part of the targeted population. The census comprised of 44 employees under these sections and stratified as follows: internal control (10), expenditure budgets (13), expenditure accounts (17) and expenditure finance (4). All questionnaires were fully completed, which represents a 100% response rate.

3.11 Data analysis

Data analysis is seen as a way of putting numbers and information together to address the main research issue. It is also a crucial tool for answering the research questions (Ponto, 2015). Data analysis is a vital phase of the research process because it turns the study data into a presentation that is understandable and meaningful (Bergin, 2018). In this step, the research variables are connected and given descriptions of their relationships, reliability and frequencies (Coe et al., 2017). After quantitative data was collected and organised it was analysed by a statistician using SPSS version 27. This study made use of categorical data, simplified into a budgeting team, accounts control team, expenditure control team and financial control team. With the aid of a statistician, a multiple regression analysis was used to determine the relationship between variables. To ensure generalisation, the ratio of observation to independent variable was set at a minimum of three using the eigen values greater than one.

The quality of data produced is dependent on the census quality and was analysed based on the following six elements, namely:

Relevance: This element aims to ensure that information obtained by the census will in fact meet the needs of the study. Therefore, the researcher only made use of data supplied under categories of the target population.
Accuracy: To ensure reliability and precision, measurements done during the process were evaluated for any inconsistencies, omissions and mistakes. This was to identify and control any errors that can arise during the census process.

Accessibility: This element relates to the availability and ease of data from the census population (Baffour et al., 2012). In this case, the questionnaire instrument was accessible online via the eThekwini HSU mail site. Control strategies were in place to safeguard the information obtained by the questionnaire instrument but did not compromise the quality of the data.

Interpretability: Data from the census was analysed and categorised into small parts to gain higher degree understanding, therefore optimising the results of the census. This enabled the researcher to evaluate whether the responses given answer the questions asked by the study.

Coherence: This element aims to investigate and explain the deviances from the expected results (Baffour et al., 2012). These deviances were revealed through the comparison of the existing data, which was obtained through the census.

Timeliness: The census process in this study was dependent on the response rate counter-acted by the issue of reminders; therefore, timeframe did not affect the relevance and validity of the results.

3.11.1 Quantitative data analysis

To examine the relationship between variables, frequency and reliability and draw reliable conclusions, descriptive and inferential statistics data analysis were performed using SPSS (Coe et al., 2017). The responses' data was analysed using SPSS in relation to the objectives outlined in Chapter One.

Descriptive analysis is the statistical definition, combination and presentation of concepts of interest or relationships among various concepts (Bhattacherjee, 2012). This statistics measurement model transforms the data into a comprehensible format so that large amounts of data can be condensed into a briefer summary (Trochim, 2020). In this study, the preliminary computation of the results for Section A of the questionnaire involved the use of descriptive statistics in Microsoft Excel to analyse
the census profile and the key demographic variables. The descriptive statistics results are presented as frequencies, percentages, tables and cross tabulations.

The main analysis for Sections B, C and D of the questionnaire included the use of descriptive and inferential statistics to analyse the responses and, more importantly, to test the formulated themes in each section. To enhance the quality of the statistical findings, significant trends that emerged from the numerous topics in each part were also recorded and compared to relevant findings made in other studies by different researchers. A statistician was given the questionnaire and was responsible for entering all the data and calculating all of the statistics. These are discussed in the following section.

3.11.2 Inferential statistics and Chi-square

Inferential statistics are employed with the sample data to draw conclusions about the research population that the sample was drawn from. Inferential statistics' main objective is to draw inferences from the sample and generalise them to the population (Singh, 2018). Inferential statistics, according to Bajpai (2011), are divided into two categories: parametric statistical tests and non-parametric statistical tests. Trochim (2020) asserts that a probability determination of the difference and relationship between the research phenomena under study may be made using inferential statistics. Hence, this study drew conclusions from population where the sample was drawn using inferential statistics. This measure was also used for the discussion of this study phenomenon drawn from the objectives. The findings of this study provided an overview of the role of cost controls in improving operational performance in the eThekwini HSU, as well as the results of relevant non-parametric tests. These tests were carried out on the questionnaire's Sections B, C and D (Appendix B). The results are presented first in the form of summarised percentages for the variables that comprise each section, then further analysed based on the significance of the statements.

Bartlett’s Test of Sphericity and the Chi-square test of values were used in this study, and the p values were used to interpret the results. To compare actual results to forecasts, a statistical method known as the Chi-square test is utilised. According to Collins and Hussey (2003), the purpose of this test is to ascertain whether a
discrepancy between observed and expected data is the result of chance or a connection between the variables under investigation. As a result, in this study, a Chi-square test was deemed ideal for better understanding and interpreting the relationship between categorical variables.

3.11.3 Cronbach’s Coefficient Alpha

This study used Cronbach's Alpha to evaluate the validity of the questionnaires. Gay et al. (2011) describe Cronbach's Alpha as an explicit measure of the internal consistency dependability of a group of items. The consensus among Gravetter et al. (2020) is that Cronbach's Alpha should be employed when there are more than two test substances. This was the case with the Likert scale used in this study, which required respondents to select one of five options. Cronbach's Alpha, according to Gay et al. (2011), defines the relationship of test substances to other test substances and to the entire test, which aims to approximate internal consistency and dependability. Internal consistency is achieved when all substances tested are correlated or amount to the same thing.

The study's research objective and questions were considered at all stages of data analysis. The researcher grouped and organised quantitative data into tables to show it in a manageable and understandable manner.

3.12 Reliability and validity

Reliability was ensured by Cronbach's Alpha and questionnaire validity was ensured by conducting a pilot study. All ambiguous statements were removed and improvements were made on vague statements.

The internal reliability of the component variables constituting working capital management, investing decisions, financing decisions and factors influencing the capital structure of the firm was tested using Cronbach's Alpha coefficient. According to Hair et al. (2006), alpha of 0.70 and above was regarded as acceptable. As shown in the data in Table 4.1, the Cronbach’s Alpha coefficient for cost control techniques (α=0.876) and factors influencing cost control to improve operational performance
(α=0.836) were good while the Cronbach’s Alpha coefficient for the effect of cost control on operational performance was (α=0.938). This suggests a degree of consistency as all constructs were above the recommended value of 0.70 indicating that the instrument is sufficiently reliable. Overall, the Cronbach’s Alpha coefficient for all the items collectively was found to be excellent (α=0.919).

Table 3.2 Reliability test for the research instrument

<table>
<thead>
<tr>
<th>Sections</th>
<th>Items</th>
<th>Dimensions</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>11</td>
<td>Cost control techniques</td>
<td>0.876</td>
</tr>
<tr>
<td>C</td>
<td>22</td>
<td>Factors influencing cost control to improve operational performance</td>
<td>0.836</td>
</tr>
<tr>
<td>D</td>
<td>21</td>
<td>Effect of cost control on operational performance</td>
<td>0.938</td>
</tr>
<tr>
<td>Total</td>
<td>54</td>
<td></td>
<td>0.919</td>
</tr>
</tbody>
</table>

The validity of the research instrument was also ensured by ensuring that the questions asked were directly related to the study’s objectives. The coding of all the data during the data preparation phase indicated that there were no empty fields and that all integer values were between 1 and 5. Furthermore, all research variables based on a Likert scale had a Cronbach’s Alpha greater than 0.7. A minimum reliability score of 0.70 is recommended in research to achieve acceptable, consistent scoring (Muijs, 2011). As a result, the data is trustworthy (Elwyn et al., 2015).

3.13 Ethical considerations

Saunders et al. (2012: 52) argue that all research processes should have three major ethical considerations, namely gathering, measuring and publishing. This study did not consist or make use of any deception. Any issue of ethical conduct identified during
the study was appropriately resolved according to the institution’s ethical conduct. Participation in this research was voluntary. Consent letters were also provided to every participant involved in the study. Approval was obtained from the IREC at DUT. The permission to conduct the study was obtained from the Head of Department (HOD) of Management Accounting at DUT and the Post Graduate Research Office. Permission to conduct the study with the target population was requested from the Head of Department at HSU by means of a letter.

3.14 Limitations of the study

This research was conducted in the eThekwini HSU in KZN. Therefore, findings of this study were limited to this unit. Due to time, resource constraints and Covid-19 restrictions, the geographical area is limited to one department. The study results were generalised to other organisations with similar operations.

3.15 Summary of the chapter

The research technique and design used in this study were covered in this chapter. The discussion explained the rationale for the researcher's chosen study techniques to assess whether cost controls can improve operational performance problems faced by the eThekwini HSU.

The problem found in this study was localised in the eThekwini Municipality, making it a case study in addition to being a quantitative descriptive survey. This study used a questionnaire as the research instrument, with mostly closed-ended questions. The questionnaire was self-administered to a sample of 44 respondents from the finance departments.

Furthermore, the reliability of the research instrument measuring three constructs, namely cost control techniques, factors influencing cost control to improve operational performance and effect of cost control on operational performance, were tested using Cronbach's Alpha. Overall, the constructs have a combined item of 54 and a reliability coefficient of 0.919, which suggests the instrument has adequate reliability.
Inferential statistics used Cronbach's Alpha, whereas descriptive statistics used tables and measures of central tendency. The key limitation is that the eThekwini Municipality case study used in this study reduces the generalisability of the findings. Discussions about how pre-testing the questionnaire improved its validity and reliability were also included.

The following chapter is dedicated to the presentation, interpretation and discussion of the research findings.
CHAPTER FOUR

ANALYSIS AND INTERPRETATION OF RESULTS

4.1 Introduction

In alignment with the preceding chapter, which delineated the research methodology employed in this study, including the utilisation of a questionnaire as the primary data collection instrument, we now proceed to present the results and findings within this current chapter. As we delve into the findings and insights uncovered in this chapter, it is essential to appreciate the overarching objectives that have guided our research journey. Hence, this chapter is structured in accordance with the study objectives, ensuring the comprehensive attainment of all research objectives and the provision of responses to the research questions. To recap, the objectives were:

- To investigate what cost control techniques are applied by the eThekwini HSU.
- To investigate factors influencing cost controls in improving operational performance in the eThekwini HSU.
- To investigate effectiveness of cost controls in improving operational performance of the eThekwini HSU.

According to the above goals, it was feasible to determine the cost controls used by the eThekwini HSU, as well as the elements that influence cost controls’ effectiveness in increasing operational performance.

Following the three sections of the questionnaire, the results analysis is presented in a chronological order. The results of the survey were analysed and organised into the following categories:

- Demographic information
- Cost controls applied by the eThekwini HSU
- Factors influencing cost controls in improving operational performance
- Effect of cost controls on operational performance
The previous chapter described and discussed how data was collected using questionnaires as part of the study's research methodology. The goal of this chapter is to show the results of the study's questionnaires and to discuss the findings. As a result, this chapter contains the research findings as well as a discussion of the findings.

4.2 Socio-demographic profile of the respondents

This section contains descriptive information about the demographics of the respondents, such as age, gender, section, highest qualification, acquaintance with current cost controls and time spent at the eThekwini HSU. The preliminary analysis, which gives a baseline or descriptive study of the sample's demographic variables in total, is the emphasis of this section.

4.2.1 Gender

Figure 4.1 below shows that 56.8% of the respondents were female while male respondents constitute only 43.2%.

![Bar chart showing gender distribution]

Figure 4.1 Respondents gender

This data could indicate that the eThekwini HSU has a diverse composition in terms of gender. Gender diversity is crucial, especially in SA, where concerns of gender inequality are continually being addressed. As formerly disadvantaged women are
reasonably well represented, this data also demonstrates that the eThekwini HSU is following affirmative action (56.8%).

4.2.2 Age group

The age group of the respondents is shown in Figure 4.2. The data indicates that 63.6% of the respondents were between 31-40 years of age, 22.7% were between 18-30 years of age, 9.1% were between 41-50 years of age and only 4.5% were above 50 years of age. The analysis suggests that respondents within the 18-40-year age range form a good proportion (86.3%) of the age group categories. This reflects the active years of employment in SA.

![Figure 4.2 Respondents age group](image)

The results show that (22.7%) of the respondents were millennials. The results shows that the respondents consisted of mostly middle-aged group (63.6%).
4.2.3 Level of education

Respondents were asked to indicate their highest academic qualification to determine their academic qualifications and, as a result, their skill base. The respondents’ level of education is provided in Figure 4.3. The pie chart shows that the majority (43.2%) had a degree, 38.6% had a diploma, 15.9% had an Honours degree and 2.3% had a higher qualification. The analysis indicated that a combined 81.8% of the respondents possess a diploma or a degree. The analysis suggested that a good number of the respondents hold a degree, which is advantageous for the eThekwini HSU in terms of skills required.

![Pie chart showing level of education](image)

Figure 4.3 Respondents level of education

4.2.4 Work experience

This section intends to ascertain respondents’ level of experience. This is presented in the pie chart below. The pie chart in Figure 4.4 shows that 65.9% of the respondents have had between 1-10 years of work experience, 18.2% have had between 11-20 years, 9.1% have had less than one year of experience and only 6.8% have had more than 20 years’ work experience. The analysis indicates that most of the respondents have adequate work experience to understand the cost control techniques applied to the eThekwini HSU.
Figure 4.4 The respondents level of experience

4.2.5 Familiarity with modern cost control techniques

Even though the majority of the respondents had a sufficient degree of education, the researcher aimed to ascertain if they were conversant with current modern cost controls. Thus, the data in Figure 4.5 shows that 61.4% of the respondents have good familiarisation with modern cost control techniques, 34.1% have general knowledge while 4.6% have extensive knowledge of modern cost control techniques. This indicates that the study's questions will be thoroughly addressed.
4.2.6 Employment sector

In this section, respondents were required to indicate their employment section under the eThekwini HSU. The sector in which each of the respondents was employed is given in Figure 4.6. The data shows more of the respondents (38.6%) were employed in expenditure control (accounts), 29.5% were employed in expenditure control (budget), 22.7% were employed in internal control and 9.1% were employed in expenditure control (finance).

![Figure 4.6 The respondents according to each section](image)

4.2.7 Overview of demographic profile of respondents

This section analysed the background information of all the respondents. There is an almost even split between male and female employees, with the majority having spent at least 10 years in the unit. Most respondents in the sample were aged 31-40 and were in possession of a degree. Furthermore, a fair number (61.4%) had a good knowledge of modern cost controls.

The next section addresses the first objective of the study, namely, the cost controls applied by the eThekwini HSU.
4.3 Analysis of results according to the research objectives

This section offers a thorough analysis of the respondents' answers to the questions regarding the cost control methods used by the unit, factors that influence these cost controls and the effect of cost controls in improving operational performance. These questions were addressed in the questionnaire's Section B. These questions are aligned to the study's research objectives (as outlined in section 4.1 in this chapter). The findings from Section B of the questionnaire are discussed and presented in a logical and straightforward manner.

4.4 Objective 1: Cost control techniques applied by the eThekwini Human Settlement Unit

The previous section presented the demographics of the respondents. This section examines the modern cost controls applied by the eThekwini HSU. Studies by Siyanbola and Raji (2013) have shown the importance of the application of cost controls as a daily operation in an organisation.

This section details statements relating to the effective application of the various modern cost control techniques applied by the eThekwini HSU. A five-point Likert scale ranging from one to five was used to elicit responses from the respondents. Positive statements (strongly agree and agree) were interpreted (conflated) as agreement, while negative statements (disagree and strongly disagree) were interpreted (conflated) as disagreement. The mean value was used to show the level of agreement and disagreement. A one-sample t-test was applied to determine if there is significant agreement or disagreement with each statement. The average agreement score was tested against the central score of ‘3’ to determine if it is significantly different from ‘3’. The results are summarised in the sub-sections below.

As shown in Table 4.1, the mean values measured for all the statements (CC1-CC11) were above 3. This suggests that there is a significant agreement to these statements. The statements with the strongest agreement were CC1 which was stated as “Budgeting technique as a cost control technique applied by the eThekwini HSU” (M=4.27; SD=0.845; t (43) =33.528, p<0.001) and CC7 which was stated as “Cost
estimation as a cost control technique applied by the eThekwini HSU” (M=4.27; SD=0.817; t (43) =34.675, p<0.001).
Table 4.1 Responses to the cost control techniques applied by the eThekwini HSU

<table>
<thead>
<tr>
<th>Item</th>
<th>N=44)</th>
<th>Mean (SD)</th>
<th>t</th>
<th>Df</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Responses as frequency (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Strongly disagree</td>
<td>Disagree</td>
<td>Neutral</td>
<td>Agree</td>
<td>Strongly</td>
</tr>
<tr>
<td>Budgeting technique</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CC1</td>
<td>- (-)</td>
<td>2 (4.5)</td>
<td>5 (11.4)</td>
<td>16 (364)</td>
<td>21 (47.7)</td>
</tr>
<tr>
<td>Software integration</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CC2</td>
<td>1 (2.3)</td>
<td>2 (4.5)</td>
<td>9 (20.5)</td>
<td>14 (31.8)</td>
<td>18 (40.9)</td>
</tr>
<tr>
<td>Time management</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CC3</td>
<td>1 (2.3)</td>
<td>- (-)</td>
<td>14 (31.8)</td>
<td>13 (29.5)</td>
<td>16 (36.4)</td>
</tr>
<tr>
<td>Decision-making</td>
<td>CC8</td>
<td>1</td>
<td>12</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>-----------------</td>
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<tr>
<td></td>
<td></td>
<td>(2.3)</td>
<td>(27.3)</td>
<td>(22.7)</td>
<td>(45.5)</td>
</tr>
<tr>
<td>Costs estimation</td>
<td>CC7</td>
<td>-</td>
<td>1</td>
<td>7</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(-)</td>
<td>(2.3)</td>
<td>(15.9)</td>
<td>(34.1)</td>
</tr>
<tr>
<td>Costs classification</td>
<td>CC6</td>
<td>1</td>
<td>-</td>
<td>8</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(2.3)</td>
<td>(-)</td>
<td>(18.2)</td>
<td>(31.8)</td>
</tr>
<tr>
<td>External audits</td>
<td>CC5</td>
<td>-</td>
<td>2</td>
<td>12</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(-)</td>
<td>(4.5)</td>
<td>(27.3)</td>
<td>(25.0)</td>
</tr>
<tr>
<td>Internal audits</td>
<td>CC4</td>
<td>1</td>
<td>2</td>
<td>7</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(2.3)</td>
<td>(4.5)</td>
<td>(15.9)</td>
<td>(25.0)</td>
</tr>
<tr>
<td></td>
<td>CC9</td>
<td>2</td>
<td>14</td>
<td>10</td>
<td>18</td>
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<td>-------------------------</td>
<td>-------</td>
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</tr>
<tr>
<td><strong>Standard costing</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ratio analysis</td>
<td>CC10</td>
<td>1</td>
<td>17</td>
<td>10</td>
<td>15</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>(2.3)</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>(38.6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(34.1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value analysis</td>
<td>CC11</td>
<td>-</td>
<td>23</td>
<td>3</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(52.3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(36.4)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
According to the analysis in the table 4.1, internal audits received the highest strong agreement responses with 52%. This means that this unit relies more on its auditors for improved operational performance. This also supports Saputra and Yusuf's (2019) findings that audits provide critical efficiencies in the municipal procedures. This was followed by budgeting, cost classification and cost estimation, decision-making and external audits which achieved 47.7%; 47.7%; 47.7% and 45.5% respectively. Standard costing and software integration were 40.95% each. This shows that an average of 40% per cost control technique was supported by the respondents as their tool within this unit. This also proves that the HSU effectively uses these techniques in its operations. These results strongly support the arguments by Strauss and Zecher (2013) who believe that organisations use cost management strategies to monitor, analyse and eventually increase the effectiveness of particular areas within their activities. Ratio analysis, value analysis and time management received the least percentage in terms of strong agreement, which suggests that this unit does not effectively use these three techniques. This also proves that comparisons of unit successes is not done regularly and taking into consideration that this is a service unit, therefore ratio analysis will not be as effective.

Overall findings for the first objectives are:

There is at least a three percent neutral response for all the techniques, which suggests that a lack of knowledge and application still exists in this unit. The overall response rate to these techniques proves that most officials have knowledge about cost controls in place in this unit. Twenty-three respondents were neutral on the value analysis technique and all the other cost control techniques were responded to effectively, which increases the results of the study and its significance in this unit.

4.5 Objective 2: Factors influencing cost controls to improve operational performance

The second objective is also addressed through the responses of the respondents. This objective is based on the factors that influence cost controls in improving operational performance. These factors are categorised as being internal and external.

This section details statements that focus on the various factors influencing cost controls. The factors were categorised as internal and external. A five-point Likert
scale ranging from 1 to 5 was used to elicit responses from the respondents. Positive statements (strongly agree and agree) were interpreted (conflated) as agreement, while negative statements (disagree and strongly disagree) were interpreted (conflated) as disagreement. The mean value was used to show the level of agreement and disagreement. A one-sample t-test was applied to determine if there is significant agreement or disagreement with each statement. The average agreement score was tested against the central score of ‘3’ to determine if it is significantly different from ‘3’. The results are summarised in the sub-sections below.

4.5.1 Internal factors influencing cost controls on improving operational performance

The internal factors are based on the examination of staff attitude, organisational culture, relationship between managers and employees, poor total quality management which leads to wasteful use of the unit’s facilities, teamwork and the role played by lack of good leadership that results in poor service delivery and the need for better organisational structure to improve the unit’s operations.
Table 4.2 Responses to the internal factors influencing cost control to improve operational performance

<table>
<thead>
<tr>
<th>Item</th>
<th>IF1</th>
<th>IF2</th>
<th>IF3</th>
<th>IF4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor total quality management as an internal factor influencing</td>
<td><strong>- (-)</strong> 1</td>
<td><strong>- (-)</strong> 4</td>
<td><strong>- (-)</strong> 6</td>
<td><strong>1</strong> 1</td>
</tr>
<tr>
<td>cost control to improve operational performance</td>
<td>(2.3) 16 (36.4)</td>
<td>(9.1) 5</td>
<td>(13.6) 11</td>
<td>(2.3) 2</td>
</tr>
<tr>
<td></td>
<td>10 (22.7)</td>
<td>13 (29.5)</td>
<td>8 (25.0)</td>
<td>7 (15.9)</td>
</tr>
<tr>
<td></td>
<td>17 (38.6)</td>
<td>22 (50.0)</td>
<td>19 (43.2)</td>
<td>11 (25.0)</td>
</tr>
<tr>
<td></td>
<td>3.98 (0.927)</td>
<td>4.20 (0.978)</td>
<td>3.79 (1.091)</td>
<td>3.91 (1.117)</td>
</tr>
<tr>
<td>Mean (SD)</td>
<td>28.450  (43)</td>
<td>28.507  (43)</td>
<td>23.081  (43)</td>
<td>23.217  (43)</td>
</tr>
<tr>
<td>t</td>
<td>3.98</td>
<td>4.20</td>
<td>3.79</td>
<td>3.91</td>
</tr>
<tr>
<td>Df</td>
<td>28.450  (43)</td>
<td>28.507  (43)</td>
<td>23.081  (43)</td>
<td>23.217  (43)</td>
</tr>
<tr>
<td>p-value</td>
<td>&lt;.001*</td>
<td>&lt;.001*</td>
<td>&lt;.001*</td>
<td>&lt;.001*</td>
</tr>
<tr>
<td>Internal auditors’ ethical behaviour operation as an internal factor influencing cost control to improve operational performance</td>
<td>IF5</td>
<td>3 (6.8)</td>
<td>15 (34.1)</td>
<td>17 (38.6)</td>
</tr>
<tr>
<td>---</td>
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<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Staff attitude as an internal factor influencing cost control to improve operational performance</td>
<td>IF6</td>
<td>3 (6.8)</td>
<td>1 (2.3)</td>
<td>19 (43.2)</td>
</tr>
<tr>
<td>Management and employee relationship as an internal factor influencing cost control to improve operational performance</td>
<td>IF7</td>
<td>2 (4.5)</td>
<td>1 (2.3)</td>
<td>14 (31.8)</td>
</tr>
<tr>
<td>Staff segregation of duties as an internal factor influencing cost control to improve operational performance</td>
<td>IF8</td>
<td>- (·)</td>
<td>1 (2.3)</td>
<td>10 (22.7)</td>
</tr>
<tr>
<td>Transparency with citizens as an internal factor influencing cost control to improve operational performance</td>
<td>IF9</td>
<td>1 (2.3)</td>
<td>1 (2.3)</td>
<td>13 (29.5)</td>
</tr>
<tr>
<td>Poor information management as an internal factor influencing cost control to improve operational performance</td>
<td>IF10</td>
<td>1 (2.3)</td>
<td>2 (4.5)</td>
<td>15 (34.1)</td>
</tr>
<tr>
<td>Staff communication as an internal factor influencing cost control to improve operational performance</td>
<td>IF11</td>
<td>- (·)</td>
<td>- (·)</td>
<td>5 (11)</td>
</tr>
<tr>
<td>Internal Factor</td>
<td>IF</td>
<td>Scale</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------------</td>
<td>------</td>
<td>-------</td>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td>Lack of advanced technology as an internal factor influencing cost control to improve operational performance</td>
<td>IF12</td>
<td>1</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Adequate and skilled staff members as an internal factor influencing cost control to improve operational performance</td>
<td>IF13</td>
<td>2</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>Teamwork as an internal factor influencing cost control to improve operational performance</td>
<td>IF14</td>
<td>1</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Lack of good leadership as an internal factor influencing cost control to improve operational performance</td>
<td>IF15</td>
<td>1</td>
<td>5</td>
<td>15</td>
</tr>
<tr>
<td>Organisational culture as an internal factor influencing cost control to improve operational performance</td>
<td>IF16</td>
<td>2</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Poor budget planning as an internal factor influencing cost control to improve operational performance</td>
<td>IF17</td>
<td>4</td>
<td>5</td>
<td>9</td>
</tr>
</tbody>
</table>
In terms of internal factors which influence cost controls in improving operational performance in the eThekwini HSU, the data in Table 4.2 shows that the mean values measured for the statements IF1, IF2, IF3, IF4, IF6, IF7, IF8, IF9, IF10, IF11, IF12, IF13, IF14, IF15, IF16, and IF17 were above 3. This suggests that there is a significant agreement to these statements. The statement with the strongest agreement was IF11 which was stated as “Staff communication as an internal factor influencing cost control to improve operational performance” (M=4.48; SD=0.698; t (43) =42.521, p<0.001).

The mean value measured for the IF5 statement was below 3. This suggests that there is significant disagreement with the statement which was stated as “Poor audit operation as an internal factor influencing cost control to improve operational performance” (M=2.86; SD=1.112; t (43) =17.080, p<0.001).

Table 4.2 illustrates the overall respondents’ views on internal factors, presented as positive and negative statements that influence cost controls in improving operational performance. According to the results presented above in Table 4.2, respondents have a strong agreement with the statements as most of the factors achieved a mean of 3 and above. This shows that respondents do agree with these internal factors as an influence to improving operational performance. The statistical analysis shows that staff communication (IF11) with the mean of 4.48 has a stronger influence on improving operational performance. This is evident as 26 out of 44 staff members strongly agree that communication amongst employees is a significant factor in influencing cost controls, rating scale, equalling 59%. This strongly supports the studies by Nzuza and Lekhanya (2014) and Prajogo et al. (2018) who found that communication amongst employees plays a crucial role in the improvement of operations within the organisation.

This was followed by another strong agreement by respondents on organisational culture as an influence on cost controls in improving operational performance (IF16) (mean=4.18), which supports the studies by Nene and Pillay (2019) that found organisations are able to achieve their operational goals through effective organisational culture. This is followed by IF8, staff segregation of duties (mean=4.30), with a significant influence on cost controls, which shows employees are more willing to do their assigned tasks to improve internal controls of the organisation. A study by Robin-Jan (2011) that showed a regular update of segregation of duty is likely to
decrease the chances of fraud and violence within the workplace, proved significant throughout the results of this factor. Following this was the internal audit training, IF4 (mean=3.91), which agrees with the arguments by Guandaru (2012), and Prawitt, Smith and Wood (2009) that audit competency enhances operational functions, governance processes and financial management of the organisation. Poor total quality management (IF1), staff attitude (IF6), lack of good leadership (IF15), poor budget planning (IF17), ethical decision-making (IF3), poor information management (IF10) and lack of advanced technology (IF12) were all 3.98, 3.70, 3.77, 3.70, 3.79, 3.91, and 3.86 respectively. This result shows a significant agreement with the statements by respondents, even though their mean scores were greater than 3 but less than 4.

The results based on statement IF1 are similar to Watson and Hassett's (2016) view of total quality management as a timely and cost effective tool which is aligned with goals of residents. Statement IF3 on ethical decision-making agrees with the result by O'Leary and Stewart (2007), who stressed that ethical decision-making and conduct also uphold the standards of the organisation. Results of statement IF12 also support the argument by Prajogo et al. (2018) that for reliable decision-making and IT to be effective, it should be implemented and practised within the organisation by workers. However, the results for statement IF5 on audit procedures are quite contradictory in comparison with the results by Baharud-din, Shokiyah and Ibrahim (2014) who emphasised the importance of internal auditors ensuring structured governance and effective operations as well as financial management.

The statistical analysis shows there is at least 40% strong agreement rating scale on most of the internal factors, which enhances the aim of this study and in addressing the research question.
4.5.2 External factors influencing cost controls on improving operational performance

The second objective also examines the external factors that influence cost control in improving operational performance. These are based on the lack of accountability, the highly demanding market environment, the environmental uncertainty, socio-political changes that always seem to affect every governmental structure and customer demands. Table 4.3 below shows there is a significant agreement by respondents to these external factors as an influence to improve operational performance.

In terms of the external factors that influence cost controls in improving operational performance in the eThekwini HSU, the data in Table 4.3 shows the mean values measured for the statements EF1, EF2, EF3, EF4, and EF5 were above 3. This suggests that there is a significant agreement to these statements. The statement with the strongest agreement was EF4 which was stated as “Socio-political changes as an external factor influencing cost control to improve operational performance” (M=4.18; SD=0.995; t (43) =27.887, p<0.001).
Table 4.3 Responses to the external factors influencing cost control in improving operational performance

<table>
<thead>
<tr>
<th>Item</th>
<th>Responses as frequency (%)</th>
<th>Mean (SD)</th>
<th>t</th>
<th>Df</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N=44)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Strongly</td>
<td>Disagree</td>
<td>Neutral</td>
<td>Agree</td>
<td>Strongly</td>
</tr>
<tr>
<td>Lack of accountability as an external factor influencing cost control to improve operational performance</td>
<td>EF1</td>
<td>-</td>
<td>3 (6.8)</td>
<td>12 (27.3)</td>
<td>12 (27.3)</td>
</tr>
<tr>
<td>Highly demanding market environment as an external factor influencing cost control to improve operational performance</td>
<td>EF2</td>
<td>-</td>
<td>4 (9.1)</td>
<td>16 (36.4)</td>
<td>5 (11.4)</td>
</tr>
<tr>
<td>Environmental uncertainty as an external factor influencing cost control to improve operational performance</td>
<td>EF3</td>
<td>1 (2.3)</td>
<td>3 (6.8)</td>
<td>14 (31.8)</td>
<td>7 (15.9)</td>
</tr>
<tr>
<td></td>
<td>EF4</td>
<td>1</td>
<td>1</td>
<td>9</td>
<td>11</td>
</tr>
<tr>
<td>------------------------------------------------------------------</td>
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</tr>
<tr>
<td>Socio-political changes as an external factor influencing cost</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>control to improve operational performance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.3</td>
<td>2.3</td>
<td>20.5</td>
<td>25.0</td>
<td>50.0</td>
</tr>
<tr>
<td>Customer demands as an external factor influencing cost</td>
<td>EF5</td>
<td>1</td>
<td>4</td>
<td>13</td>
<td>5</td>
</tr>
<tr>
<td>control to improve operational performance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.3</td>
<td>9.1</td>
<td>29.5</td>
<td>11.4</td>
<td>47.7</td>
</tr>
</tbody>
</table>

Based on the statistical examination in table 4.3, there is a strong agreement by respondents on socio-political changes as an influence to improve operational performance. This is evident by 22 respondents out of 44 strongly agreeing to this.
factor as a stronger influencer of operational performance. These results strongly support the argument of Plata-Díaz et al. (2014) and Mhlaba (2018), who stated that political changes influence the operations of many government spheres, through unfulfilled promises related to service delivery and their involvement in the appointment of officials. This analysis also shows that customer demand plays a bigger role in operational performance, through the achievement of strong agreements of 21 respondents. This means that close to 50% of workers believe that ever-increasing high demand affects the performance of this unit. These results support the study by Khuzwayo (2017) that states municipalities should review their service delivery performances. The environmental uncertainty and highly demanding market environment both achieved a 43% strong agreement as external factors to improve operational performance. This result strongly supports the statements by Amara and Benelifa (2017) on environmental uncertainty, which assert that the degree of environmental uncertainty influences the level of change in accounting management practices, and that there is a need for this unit’s management accounting section to develop mechanisms in the provision of rental houses to tackle the supply and demand side. The environmental uncertainty (43%) results strongly support the arguments by Yu et al. (2018) on the sudden changes in pricing, outsourcing strategies and lockout legislation and the need for this unit to have systems in place for the provision of housing when this factor plays such a big role. Overall, these results strongly support the arguments provided by the literature, hence there is a significant agreement with all the external factors by respondents as each factor achieved at least 40% strong agreement rating scale, and only one achieved 38%, which was the lack of accountability.

Overall, there is a continued urge for eThekwini HSU to review its operational performances through thorough examination of these external factors.

4.6 Objective 3: Effect of cost control on operational performance

Objective three of this study is addressed by analysing answers from the respondents in this section of the instrument. This objective intends to examine effect of cost
controls in improving operational performance. This section details statements that focus on the effect of cost control on operational performance. The section was discussed under four sub-themes, namely Administration, Human settlements policy, strategy and planning, Human settlement delivery and support and Housing development finance.

A five-point Likert scale ranging from 1 to 5 was used to elicit responses from the respondents. Positive statements (strongly agree and agree) were interpreted (conflated) as agreement, while negative statements (disagree and strongly disagree) were interpreted (conflated) as disagreement. The mean value was used to show the level of agreement and disagreement. To ascertain whether there was significant agreement or disagreement with each statement, a one-sample t-test was used. To assess if the average agreement score differed considerably from the central score of "3," it was compared to the centre score. The results are summarised in the sub-sections below.

4.6.1 Effect of cost control administration on improving operational performance

In terms of the effect of cost control administration on improving operational performance in the eThekwini HSU, the data in Table 4.4 shows Mean values measured for the statements A1, A2, A3, A4, A5, A6 and A7 were above 3. This suggests that there is a significant agreement to these statements. The statement with the strongest agreement was A1 which was stated as “Efficient use of consumables as an effect of cost control on operational performance” (M=4.61; SD=0.618; t (43) =49.506, p<0.001).
Table 4.4 Responses to the effect of cost control administration on operational performance

<table>
<thead>
<tr>
<th>Item</th>
<th>Responses as frequency (%)</th>
<th>Mean (SD)</th>
<th>t</th>
<th>Df</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>N=44</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Strongly disagree</td>
<td>Disagree</td>
<td>Neutral</td>
<td>Agree</td>
<td>Strongly agree</td>
</tr>
<tr>
<td>Efficient use of consumables as an effect of cost control on operational performance</td>
<td>A1</td>
<td>- (1)</td>
<td>1 (2.3)</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(-)</td>
<td>(2.3)</td>
<td>(-)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>14 (31.8)</td>
<td>29 (65.9)</td>
<td>4.61</td>
<td>49.506</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4.61 (0.618)</td>
<td>43</td>
<td>.001*</td>
<td></td>
</tr>
<tr>
<td>Proper use of training and development as an effect of cost control on operational performance</td>
<td>A2</td>
<td>- (1)</td>
<td>1 (2.3)</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(-)</td>
<td>(2.3)</td>
<td>(18.2)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>9 (20.5)</td>
<td>26 (59.1)</td>
<td>4.36</td>
<td>33.458</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4.36 (0.865)</td>
<td>43</td>
<td>.001*</td>
<td></td>
</tr>
<tr>
<td>Efficient control of spending on operational payment as an effect of cost control on operational performance</td>
<td>A3</td>
<td>- (1)</td>
<td>1 (2.3)</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(-)</td>
<td>(2.3)</td>
<td>(11.4)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>12 (27.3)</td>
<td>26 (59.1)</td>
<td>4.43</td>
<td>37.240</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4.43 (0.789)</td>
<td>43</td>
<td>.001*</td>
<td></td>
</tr>
<tr>
<td>Description</td>
<td>A4/5/6</td>
<td>N</td>
<td>Mean</td>
<td>Median</td>
<td>Standard Deviation</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------</td>
<td>--------</td>
<td>---</td>
<td>------</td>
<td>--------</td>
<td>--------------------</td>
</tr>
<tr>
<td>Better acquisition of machinery and equipment as an effect of cost control on operational performance</td>
<td>A4</td>
<td></td>
<td>4</td>
<td>7</td>
<td>12 (27.3)</td>
</tr>
<tr>
<td>Improved supply of fleet services as an effect of cost control on operational performance</td>
<td>A5</td>
<td></td>
<td>5</td>
<td>6</td>
<td>11 (25.0)</td>
</tr>
<tr>
<td>Effective utilisation of financial asset payment as an effect of cost control on operational performance</td>
<td>A6</td>
<td></td>
<td>3</td>
<td>9</td>
<td>13 (29.5)</td>
</tr>
<tr>
<td>Overall administration programme as an effect of cost control on operational performance</td>
<td>A7</td>
<td></td>
<td>1</td>
<td>4</td>
<td>14 (31.8)</td>
</tr>
</tbody>
</table>
The statistical analysis on the effect of cost control in improving operational performance in the administration section shows that all statements received at least a 40% strong agreement response rating. The efficient use of consumables achieved 65% with a strongly agree response of 29 out of 44. This result strongly supports Siyanbola and Raji’s (2013) examination that cost controls should start at administration level if they are to be effective and produce efficient results. The results of these responses also support the objective of this section, which is to provide efficient procedures and use of department consumables (Human Settlement Annual Report 2019-2020). Proper training and development, which achieved a 59% strong agreement rating, was also emphasised by Siyanbola and Raji (2013) as crucial guidance received at an administration level to enhance the application of cost control methods. The 40% strong agreement average under this effect reveals that employees should receive more knowledge and training about cost control administration activities.

4.6.2 Effect of cost control (Human settlement policy, strategy and planning) on improving operational performance

In terms of the effect of cost control (Human settlement policy, strategy and planning) on improving operational performance in the eThekwini HSU, the data in Table 4.5 shows that the mean values measured for the statements HPSP1, HPSP2, HPSP3, HPSP4 and HPSP5 were above 3. This suggests that there is a significant agreement to these statements. The statements with the strongest agreement were HPSP3 which was stated as “Compensation of employee expenditure as an effect of cost control on operational performance” (M=4.27; SD=0.924; t (43) =30.667, p<0.001) and HPSP4 which was stated as “Better management of travel and subsistence expenditure as an effect of cost control on operational performance” (M=4.27; SD=0.899; t (43) =31.538, p<0.001).
Table 4.5 Responses to the effect of cost control (Human settlement policy, strategy and planning) on operational performance (IB)

<table>
<thead>
<tr>
<th>Item</th>
<th>Responses as frequency (%)</th>
<th>Mean (SD)</th>
<th>t</th>
<th>Df</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Better control of salaries and wages as an effect of cost control on</td>
<td>Strongly Agree Strongly</td>
<td>4.20 (0.851)</td>
<td>32.763</td>
<td>43</td>
<td>&lt;.001*</td>
</tr>
<tr>
<td>operational performance</td>
<td>Disagree Neutreral</td>
<td>17 (38.6) 19 (43.2)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>N=44)</td>
<td>6 (13.6) 19 (43.2)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HPSP1</td>
<td>1 (2.3) 10 (22.7)  12 (27.3)  21 (47.7)  4.20 (0.878)</td>
<td>31.760</td>
<td>43</td>
<td>&lt;.001*</td>
</tr>
<tr>
<td>Efficient unit transfer and subsidies as an effect of cost control</td>
<td>Strongly Agree Strongly</td>
<td>4.27 (0.924)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>on operational performance</td>
<td>Disagree Neutreral</td>
<td>15 (34.1)  22 (50.0)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>N=44)</td>
<td>5 (11.4) (34.1)  50.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HPSP2</td>
<td>1 (2.3) 10 (22.7)  12 (27.3)  21 (47.7)  4.27 (0.924)</td>
<td>31.760</td>
<td>43</td>
<td>&lt;.001*</td>
</tr>
<tr>
<td>Compensation of employee expenditure as an effect of cost control</td>
<td>Strongly Agree Strongly</td>
<td>4.27 (0.924)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>on operational performance</td>
<td>Disagree Neutreral</td>
<td>15 (34.1)  22 (50.0)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>N=44)</td>
<td>5 (11.4) (34.1)  50.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HPSP3</td>
<td>1 (2.3) 10 (22.7)  12 (27.3)  21 (47.7)  4.27 (0.924)</td>
<td>31.760</td>
<td>43</td>
<td>&lt;.001*</td>
</tr>
</tbody>
</table>
According to Aikins (2011), policies and strategies must be updated each financial year by departments to ensure their effectiveness and to keep up with current legislations. Overall, the regular examination of controls ensures the validity of financial statements, whilst regular operational control review determines whether operations are controlled in the manner directed by the senior management (Aikins, 2011). Compensation of employee expenditures, budget allocation and better management of travel and subsistence expenditures were all identified to have significant effect on operational performance. Efficient unit transfer and subsidies and employee salaries and wages both had the least agreement response, even though they have a significant effect on cost control as identified. These results support the literature on the aim of this section, which is discussed to be a priority section for the unit. Overall, these results reveal that spending at the eThekwini HSU determines the overall performance. Therefore, these results prove that this section plays a crucial role in this unit regarding the improvement of operational performance as each statement achieved at least 40% strong agreement.
4.6.3 Effect of cost control (Human settlement delivery and support) on improving operational performance

This section analysed the respondents’ data under four main points, namely over-allocation of funds, under-spending on current payments, overestimation of cost related transfers and consistent rise in overestimation.

In terms of the effect of cost control (Human settlement delivery and support) in improving operational performance in the eThekwini HSU, the data in Table 4.6 shows the mean values measured for the statements HDS1, HDS2, HDS3 and HDS4 were above 3. This suggests that there is a significant agreement to these statements. The statement with the strongest agreement was HDS4 which was stated as “Consistent rise in overestimation as an effect of cost control on operational performance” (M=4.41; SD=0.816; t (43) =35.839, p<0.001).

Table 4.6 Responses to the effect of cost control (Human settlement delivery and support) on operational performance

<table>
<thead>
<tr>
<th>Item</th>
<th>Responses as frequency (%)</th>
<th>Mean (SD)</th>
<th>t</th>
<th>Df</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N=44)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Strongly Agree Strongly Disagree Neutral Agree Strongly Agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Over allocation of funds as an effect of cost control on operational performance</td>
<td>HDS1</td>
<td>2 (4.5) - 5 (11.4) 11 (25.0) 26 (59.1)</td>
<td>4.34 (1.010)</td>
<td>28.502</td>
<td>43</td>
</tr>
</tbody>
</table>
The main aim of this section is to examine exactly which unit within the delivery support can be improved through cost controls. According to the statistical results, the consistent rise of overestimation received the strongest agreement of 59%. The objective of this section is to provide support through funding allocations. Consistent rise in overestimations, followed by overestimations of cost related transfers, over allocation of funds and under spending on current transfers were all identified to have a significant effect on cost controls. According to these results, overestimations trigger an over allocation of funds which gives relevance to this research to strengthen cost control measures when it comes to cost estimations. This means the cost controls in place have a significant effect in this unit and can influence
improvement under the delivery support section. The results of this section prove the need for strong cost controls that should be in place to control the overestimations and under spending on transfers. Each statement received more than 50% strong agreement, which means there is indeed a constant rise in the impact of current cost controls on improving operational performance.
4.6.4 Effect of cost control (Housing development finance) on improving operational performance

In this section, the study focused on five main points, namely Subsidies on municipal bank account expenditures, Improved spending over departmental expenditure, Human settlement development, Expenditure of transfer and subsidies and Title deed restoration expenditure grants. The results are discussed below.

In terms of the effect of cost control (Housing development and finance) on improving operational performance in the eThekwini HSU, the data in Table 4.7 shows the mean values measured for the statements HDF1, HDF2, HDF3, HDF4 and HDF5 were above 3. This suggests that there is a significant agreement to these statements. The statement with the strongest agreement was HDF3 which was stated as “Human settlement development as an effect of cost control on operational performance” (M=4.27; SD=0.949; t (43) =29.865, p<0.001).
Table 4.7 Responses to the effect of cost control (Housing development finance) on operational performance (ID)

<table>
<thead>
<tr>
<th>Item</th>
<th>Item</th>
<th>Responses as frequency (%)</th>
<th>Mean (SD)</th>
<th>t</th>
<th>Df</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N=44</td>
<td>Strongly disagree</td>
<td>Disagree</td>
<td>Neutral</td>
<td>Agree</td>
<td>Strongly agree</td>
</tr>
<tr>
<td>Subsidies on municipal bank account expenditure</td>
<td>HDF1</td>
<td>2 (4.5)</td>
<td>- (1)</td>
<td>16 (36.4)</td>
<td>7 (15.9)</td>
<td>19 (43.2)</td>
</tr>
<tr>
<td>Improved spending over departmental expenditure</td>
<td>HDF2</td>
<td>1 (2.3)</td>
<td>4 (9.1)</td>
<td>8 (18.2)</td>
<td>7 (15.9)</td>
<td>24 (54.5)</td>
</tr>
<tr>
<td>Human settlement development</td>
<td>HDF3</td>
<td>1 (2.3)</td>
<td>- (1)</td>
<td>9 (20.5)</td>
<td>10 (22.7)</td>
<td>24 (54.5)</td>
</tr>
<tr>
<td>Expenditure of transfer and subsidies</td>
<td>HDF4</td>
<td>2 (4.5)</td>
<td>- (1)</td>
<td>9 (20.5)</td>
<td>7 (22.7)</td>
<td>26 (54.5)</td>
</tr>
<tr>
<td>Title deed restoration expenditure grants</td>
<td>HDF5</td>
<td>-</td>
<td>-</td>
<td>16</td>
<td>8</td>
<td>20</td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>------</td>
<td>---</td>
<td>---</td>
<td>----</td>
<td>---</td>
<td>----</td>
</tr>
</tbody>
</table>

According to the statistical analysis, spending of transfer and subsidies has the strongest rating scale as it received 26 out of 44 strong agreement. This proves the level of effect of cost controls on housing provision spending. There is more than 50% strong agreement by respondents on human settlement development, which proves that this has a significant effect on operational performance of this unit, as this is one of the main objectives of the eThekwini HSU and therefore justifies the strong effect. Title deed restoration spending, human settlement development and subsidies on municipal bank account expenditure all had a more than 50% strong agreement response. This proves the argument by Kenton (2020) which was supported by Akenbor and Agwor (2015), that cost controls play a significant role in productive use of municipal funds. The overall aim of this objective has been achieved through these results.
4.7 Factor analysis and validation of the research constructs

Factor analysis was performed to validate the constructs (cost control techniques, factors influencing cost controls to improve operational performance and the effect of cost control on operational performance) using exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). According to Watkins (2018: 220), factor analysis can help identify common factors that explain the order and structure among measured variables. EFA making use of principal component analysis (PCA) extraction method and Varimax rotation with Kaiser Normalization were set as the measuring parameters. Shrestha (2021: 7) explains that the condition for EFA, Kaiser-Meyer value should exceed the value of 0.5 and Bartlett’s Test of Sphericity must be statistically significant. The data in Table 4.8 shows that the Kaiser-Meyer value for all the four constructs exceeded the recommended values while Bartlett’s Test of Sphericity was statistically significant. This, therefore, supports the suitability of the correlation matrix.

Table 4.8: KMO and Bartlett's test for constructs

<table>
<thead>
<tr>
<th>Section</th>
<th>Caption</th>
<th>Kaiser-Meyer-Olkin measure of sampling adequacy</th>
<th>Bartlett’s Test of Sphericity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Approx. Chi-square</td>
<td>df</td>
</tr>
<tr>
<td>B</td>
<td>Cost control techniques</td>
<td>0.779</td>
<td>215.440</td>
</tr>
<tr>
<td>C</td>
<td>Factors influencing cost controls to improve operational performance</td>
<td>0.501</td>
<td>433.416</td>
</tr>
<tr>
<td>D</td>
<td>Effect of cost control on operational performance</td>
<td>0.749</td>
<td>811.782</td>
</tr>
</tbody>
</table>
4.3.1 Validation of the cost control techniques applied by the eThekwini Human Settlement Unit

Using the eigen values greater than one, the PCA for the extracted items for working capital management revealed three factors explaining 66.68% of the total variance. This suggests that the respondents view working capital management under five separate factors (Table 4.9). Factor 1 contained 4 items (Item CC1, CC2, CC4 and CC5) which was categorised under “Budgeting and auditing techniques applied”. Factor 2 contained 3 items (Item CC6-CC8), categorised under “Cost estimation”. Item CC3 has cross-loading in two factors and was removed from further analysis. Factor 3 contained 3 items (CC9-CC11) which were categorised under “Cost analysis”.
Table 4.9: Factor coefficient for cost control techniques applied by the eThekwini Human Settlement Unit

<table>
<thead>
<tr>
<th>Factor</th>
<th>Component</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>CC1</td>
<td>Budgeting and auditing techniques applied</td>
<td>.749</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CC2</td>
<td></td>
<td>.743</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CC3</td>
<td></td>
<td></td>
<td>.650</td>
<td>.509</td>
</tr>
<tr>
<td>CC4</td>
<td></td>
<td>.693</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CC5</td>
<td></td>
<td>.704</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CC6</td>
<td>Cost estimation</td>
<td></td>
<td>.749</td>
<td></td>
</tr>
<tr>
<td>CC7</td>
<td></td>
<td></td>
<td>.780</td>
<td></td>
</tr>
<tr>
<td>CC8</td>
<td></td>
<td></td>
<td>.733</td>
<td></td>
</tr>
<tr>
<td>CC9</td>
<td>Cost analysis</td>
<td></td>
<td></td>
<td>.711</td>
</tr>
<tr>
<td>CC10</td>
<td></td>
<td></td>
<td></td>
<td>.537</td>
</tr>
<tr>
<td>CC11</td>
<td></td>
<td></td>
<td></td>
<td>.806</td>
</tr>
</tbody>
</table>
CFA was computed to validate the EFA analysis of the three factors uncovered for cost control techniques applied by the eThekwini HSU. The reliability of the three factors (budgeting and auditing techniques applied, cost estimation and cost analysis) was assessed using Cronbach’s Alpha and composite reliability. The data shows that each of the dimensions had acceptable reliability. The validity of the dimensions was assessed using both convergent and discriminant validity. The convergent validity was assessed using the average variance extracted (AVE). According to Hair et al. (2010), standardised factor loading with a value of 0.50 or higher provides strong evidence of convergent validity. As shown in Table 4.10 below, the AVE for the three factors has a factor loading above the recommended value, which suggests adequate convergent validity. Discriminant validity was assessed using maximum shared square variance (MSV). Based on the rule of thumb, the AVE value should be greater than the MSV (Mimouni-Chaabane and Volle, 2010:34). The AVE values for the two factors were found to be greater than the measured MSV values, which suggests discriminant validity.

Table 4.10: Showing the reliability, discriminant and convergent validity for cost control techniques applied by the eThekwini Human Settlement Unit

<table>
<thead>
<tr>
<th></th>
<th>Cronbach’s alpha</th>
<th>CR</th>
<th>AVE</th>
<th>MSV</th>
<th>MaxR(H)</th>
<th>Estimate</th>
<th>Budget</th>
<th>Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimate</td>
<td>0.779</td>
<td>0.792</td>
<td>0.95</td>
<td>0.523</td>
<td>0.894</td>
<td>0.834</td>
<td>0.522</td>
<td>0.510</td>
</tr>
<tr>
<td>Budget</td>
<td>0.787</td>
<td>0.793</td>
<td>0.612</td>
<td>0.523</td>
<td>0.834</td>
<td>0.782</td>
<td>0.567</td>
<td></td>
</tr>
<tr>
<td>Analysis</td>
<td>0.714</td>
<td>0.709</td>
<td>0.634</td>
<td>0.523</td>
<td>0.713</td>
<td></td>
<td>0.567</td>
<td>0.670</td>
</tr>
</tbody>
</table>
4.8 Validation of the internal factors that influence cost control

Using the eigen values greater than one, the PCA for the extracted items measuring the factors that influence cost control to improve operational performance revealed seven variables explaining 71.19% of the total variance. This suggests that the respondents view the factors influencing cost control to improve operational performance under seven separate factors (Table 4.11). From the basic principles of factor analysis, all factors with less than 3 items and/or with negative loading were not considered for further analysis. This means that all items highlighted in “yellow” were discontinued. Factor 1 contained 3 items (IF1, IF4 and IF12) which were categorised under “Poor management”. Factor 2 contained 3 items (IF11, IF13 and IF14) which were categorised under “Good leadership”. Factor 3 contained 3 items and had a mix of internal factors (IF3 and IF15) and external factors (Item EF4) which were categorised under a new dimension “Ethics and bad leadership”.

Table 4.11 Factor coefficient for factors influencing cost control to improve operational performance

<table>
<thead>
<tr>
<th>Component</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
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<tbody>
<tr>
<td>IF1</td>
<td>.726</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IF2</td>
<td>.803</td>
<td></td>
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<td></td>
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<tr>
<td>IF3</td>
<td></td>
<td></td>
<td>.705</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IF4</td>
<td>.694</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IF5</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>IF6</td>
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<td></td>
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<td>IF7</td>
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<td>IF8</td>
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<tr>
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<td>---</td>
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<td>------</td>
<td>---</td>
<td>-----</td>
<td>------</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>IF10</td>
<td>-.598</td>
<td></td>
<td>IF11</td>
<td>.546</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>IF13</td>
<td>.720</td>
<td></td>
<td>IF14</td>
<td>.841</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>IF16</td>
<td>.767</td>
<td></td>
<td>IF17</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>EF2</td>
<td>.764</td>
<td></td>
<td>EF3</td>
<td>.770</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>EF5</td>
<td>.792</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
CFA was computed to validate the EFA analysis of the three factors uncovered for cost control techniques applied by the eThekwini HSU. The reliability of the three factors (good leadership, poor management, ethical principle and bad leadership) was assessed using Cronbach’s Alpha and composite reliability. Although Cronbach’s Alpha for ethical principle and bad leadership was below 0.7, the composite reliability was higher than 0.7, which supports the reliability of the factor. The data for the other two dimensions has acceptable reliability. As previously explained, the validity of the dimensions was assessed using both convergent and discriminant validity. The data in Table 4.11 provides support for both convergent and discriminant validity.

Table 4.12 Showing the reliability, discriminant and convergent validity for factors influencing cost control to improve operational performance

<table>
<thead>
<tr>
<th></th>
<th>Cronbach’s Alpha</th>
<th>CR</th>
<th>AVE</th>
<th>MSV</th>
<th>MaxR(H)</th>
<th>Good</th>
<th>Poor</th>
<th>Ethics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>0.668</td>
<td>0.739</td>
<td>0.539</td>
<td>0.092</td>
<td>1.750</td>
<td>0.734</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor</td>
<td>0.794</td>
<td>0.866</td>
<td>0.618</td>
<td>0.292</td>
<td>0.814</td>
<td>0.413</td>
<td>0.786</td>
<td></td>
</tr>
<tr>
<td>Ethics</td>
<td>0.677</td>
<td>0.790</td>
<td>0.572</td>
<td>0.292</td>
<td>0.736</td>
<td>0.205</td>
<td>0.443</td>
<td>0.756</td>
</tr>
</tbody>
</table>

4.9 Validation of the effect of cost control on operational performance

Using the eigen values greater-than-one, the PCA for the extracted items measuring the effect of cost control on improving operational performance revealed five factors, explaining 78.86% of the total variance. This suggests that the respondents view the effect of cost control on improving operational performance under five separate factors. Factor 1 had a good mix of items related to Human settlement, policy, strategy (HPSP3 and 4) and planning and Human settlement, delivery and support (HDS1-HDS4) and was categorised under the new dimension of “Human settlement”. Factor 2 contained 4 items (HDF2-HDF5) and was retained in the dimension “Housing development
finance”. Factor 3 had a good mix of items related to administration (A1 and A2) and Human settlement, policy and strategy (HPSP1 and HPSP2) and was categorised under the new dimension of “Administrative policy and strategy”. Factor 4 contained 3 items (A4-A6) and was retained in the dimension “Administration”. Factor had items that failed to meet the basic principle of factor analysis and further analysis was discontinued. All items highlighted in “yellow” were also discontinued from the analysis.

Table 4.13 Factor coefficient for the effect of cost control on operational performance

<table>
<thead>
<tr>
<th>Component</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td></td>
<td></td>
<td>.639</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A2</td>
<td></td>
<td></td>
<td>.693</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A3</td>
<td></td>
<td></td>
<td>.536</td>
<td></td>
<td>.578</td>
</tr>
<tr>
<td>A4</td>
<td></td>
<td></td>
<td></td>
<td>.709</td>
<td></td>
</tr>
<tr>
<td>A5</td>
<td></td>
<td></td>
<td></td>
<td>.791</td>
<td></td>
</tr>
<tr>
<td>A6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.778</td>
</tr>
<tr>
<td>A7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.839</td>
</tr>
<tr>
<td>HPSP1</td>
<td></td>
<td></td>
<td></td>
<td>.669</td>
<td></td>
</tr>
<tr>
<td>HPSP2</td>
<td></td>
<td></td>
<td></td>
<td>.750</td>
<td></td>
</tr>
<tr>
<td>HPSP3</td>
<td>.738</td>
<td></td>
<td></td>
<td>.586</td>
<td></td>
</tr>
</tbody>
</table>
CFA was computed to validate the EFA analysis of the three factors uncovered for cost control techniques applied by the eThekwini HSU. The reliability of the three factors (Human settlement, Housing development finance, Administrative policy and strategy and Administration) was assessed using Cronbach’s Alpha and composite reliability. The data shows that out of all dimensions, two dimensions have acceptable reliability. As previously explained, the validity of the dimensions was assessed using both convergent and discriminant validity. The data in Table 4.13 provides support for both convergent and discriminant validity. However, it was worth stating here that the MSV measured for “Housing development and finance” was above AVE, thus failing to support discriminant validity for the dimension.
Table 4.14 Showing the reliability, discriminant and convergent validity for the effect of cost control on operational performance

<table>
<thead>
<tr>
<th></th>
<th>Cronbach’s Alpha</th>
<th>CR</th>
<th>AVE</th>
<th>MSV</th>
<th>MaxR(H)</th>
<th>Housing development and finance</th>
<th>Administrative policy and strategy</th>
<th>Administration</th>
<th>Human settlement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing development and finance</td>
<td>0.796</td>
<td>0.865</td>
<td>0.618</td>
<td>0.672</td>
<td>0.807</td>
<td>0.786</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administrative, policy and strategy</td>
<td>0.938</td>
<td>0.951</td>
<td>0.718</td>
<td>0.672</td>
<td>0.944</td>
<td>0.702</td>
<td>0.874</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administration</td>
<td>0.778</td>
<td>0.871</td>
<td>0.692</td>
<td>0.317</td>
<td>0.795</td>
<td>0.474</td>
<td>0.414</td>
<td>0.832</td>
<td></td>
</tr>
<tr>
<td>Human settlement</td>
<td>0.894</td>
<td>0.926</td>
<td>0.759</td>
<td>0.367</td>
<td>0.907</td>
<td>0.465</td>
<td>0.543</td>
<td>0.385</td>
<td>0.871</td>
</tr>
</tbody>
</table>
4.10 Summary

This chapter had exhaustively evaluated the role of cost controls in improving the operational performance of the eThekwini HSU. The following tests were used in the analysis: descriptive statistics including means and standard deviations were used and frequencies were represented in tables or graphs; regression analysis; one-sample t-test and independent samples t-test. In addition, factor analysis making use of exploratory and confirmatory analysis was performed to test the reliability and validate the emerging constructs. The descriptive data showed most of the respondents were females, between 31 and 40 years and possessed mostly diploma or degree qualifications. The data also showed that most of the respondents have relatively adequate work experience, with most working in the budget and accounts expenditure control sections.

In terms of the cost control techniques applied in the eThekwini HSU, the EFA uncovered three factors (Budgeting and auditing techniques applied, Cost estimation and Cost analysis). The CFA analysis confirmed the validity and reliability of the factors.

In terms of the factors influencing cost control to improve operational performance, the EFA uncovered four factors (Poor management, Good leadership, Ethical principle and bad leadership). The CFA analysis confirmed the validity and reliability of the factors. In terms of the effect of cost control on operational performance, the EFA uncovered four effects (Human settlement, Housing development finance, Administrative policy and strategy and Administration). The CFA analysis confirmed the validity and reliability of factors.
CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

In the previous chapter, the findings of this study were presented. This chapter provides an overview of the study together with the conclusions drawn and the resulting recommendations. This is followed by the limitations, suggestions for future research and contributions of the study.

5.2 Overview of study

For decades the HSU has been under considerable pressure regarding budget allocations due to the housing backlog. Local government is faced with making cost estimations and forecasts for the ever-increasing demand for houses. This has pressured government to increase its budget for the provision of shelter. Through these objectives, thorough cost estimations and effective cost control strategies should be in place to guide the maintenance of the budget and improve the quality of services provided through improved performance. These objectives also pressured the HSU to have control sections responsible for control strategies to ensure effective use of government funds. However, rising demand and increased urbanisation have resulted in overspending in other projects, which has increased the need to evaluate cost control techniques. This background reveals the main aim of this study, which is to investigate the role of cost controls on improving operational performance at the eThekwini HSU. This research aim was led by these main study questions:

- What cost control techniques are applied by the eThekwini HSU?
- What are the factors influencing cost controls in improving operational performance at the eThekwini HSU?
- What effect does cost control have on the operational performance of the HSU?

The literature review enhanced the study by exploring numerous theories pertinent to this research, providing background for cost controls and the eThekwini HSU, and demonstrating how these ideas are applied in this unit. The literature review concluded
with recommendations. Further, a questionnaire instrument was used to give answers to these research questions.

The next section gives a summary of the research findings drawn from the research objectives.

5.3 Findings of study

This section presents the study results derived from the empirical investigation.

5.3.1 Cost controls applied by the eThekwini Human Settlement Unit

This objective investigated the cost control techniques applied by this unit. According to the findings, internal auditors, budgeting, cost classification and cost estimation, decision-making and external audits were identified as the most applied cost control techniques in this unit.

5.3.2 Factors affecting cost controls in improving operational performance in the eThekwini Human Settlement Unit

These factors were grouped according to the internal and external factors. These included both negative and positive statements.

The results revealed that most staff in the eThekwini HSU agree on the identified internal factors as influencing the operational performance. Staff communication was identified as a strong influence, followed by other factors that influence cost controls on improving the eThekwini HSU's operational performance including organisational culture, staff segregation of duties, internal audit training, poor total quality management, staff attitude, lack of good leadership, poor budget planning, ethical decision-making, poor information management and lack of advanced technology. The latter was included with poor audit performance, which had a significant disagreement response and therefore suggests that this factor does not have a great influence on the HSU's operational performance.

The results based on external factors revealed that lack of accountability, the highly demanding market environment, the environmental uncertainty, socio-political changes that always seem to affect every governmental structure and customer demands have significant influence on cost controls to improve operational
performance. Socio-political changes were however identified to have the greatest influence on eThekwini HSU’s cost controls.

Overall, from the results drawn from the factors influencing cost controls, it can be concluded that as much as eThekwini HSU applies several cost controls, they seem to be influenced by many factors, both internally and externally.

5.3.3 The effect of cost controls on operational performance

This objective was categorised according to the four performance measurement sections of this unit, namely: (1) Administration, (2) Human settlement policy, strategy and planning, (3) Human settlement delivery and support, and (4) Housing development finance.

Under the cost control Administration, efficient use of consumables was identified to have a great effect on operational performance. Proper training and development and efficient control on spending on operational payments were all identified as greatly significant in their effect on cost controls. Even though there was some disagreement on some factors, the overall response proved that administration plays a major role in cost controls to improve operational performance at eThekwini HSU.

Based on the Human settlement policy, strategy and planning, the results identified that all the variables under this section are significant in terms of their effect on cost control and operational performance. However, budget allocation is recognised to have great effect and this further supports the need for this research as budgeting is one of the cost controls identified in this study.

According to the Human settlement delivery and support, variables under this section were all identified as significant and on the same level. These include over allocation of funds, under spending on current account payments, over estimation of cost-related transfers and consistent rise in over estimation. This section and its results strongly support the arguments of this research, as the need for cost controls intends to encourage better management of funds.

Under the Housing development finance section, expenditure of transfer and subsidies had a significant effect on cost controls, however human settlement development, title restoration expenditure, improved spending in departmental expenditure and subsidies
on municipal bank accounts were all agreed to be significant with a 50% strong agreement rating.

Overall, the findings strongly support the aim of this study, which is to investigate the role of cost controls on improving operational performance. The results prove that spending, cost allocation and cost estimations are the most influential on the effect of cost controls on operational performance. Studies by Akenbor and Agwor (2015) and Siyanbola and Raji (2013) were strongly supported and answered. However, this proves that the currently applied cost controls are not as effective as they should be when it comes to operational performance of this unit.

5.4 Recommendations

The recommendations are derived in part from the findings and empirical literature. The researcher offers suggestions that will broaden understanding and improve the application of cost control techniques.

5.4.1 Staff training

Personnel responsible for implementing cost controls must have the necessary training to acquire the necessary skills and knowledge for implementing cost controls in the unit. The implementation of staff training programmes would enhance the understanding of modern cost controls and curb the infrastructure challenges recognised by Molobela (2016).

The successful implementation of cost control techniques in this unit goes hand in hand with proper awareness programmes focusing on the importance of these techniques, which means regular presentation on cost controls. Management must enforce and regularly hold such programmes in order for them to be effective. Staff members should receive sufficient training so they are aware of the necessity for and strategic goal of these cost control measures, which is to enhance operational performance. Many respondents agreed that having skilled staff members is a significant factor for improved operational performance.
5.4.2 Advancing to modern cost control techniques

Here the researcher shows the importance of advancing to modern cost control techniques. According to the research, rising resident demand leads to rising internal factors that have an impact on operational performance. Therefore, it is necessary to improve the current controls as new factors are introduced to address these new problems. This transition would require the government to move the budget allocation from traditional systems to the modern cost control techniques (Verbeeten, 2011). Even though no legislation obligates any organisation to transition (Verbeeten, 2011), the PFMA supports the modernisation of systems. Studies by Akenbor and Agwor (2015) and Siyanbola and Raji (2013) focus more on the application of these modern cost controls and their significance on the organisations' operational performance. Therefore, the abnormalities identified by the AG report on spending and other cost-related findings identified by this study will be effectively monitored through modern cost control techniques.

According to the results of the third objective on delivery support, there are issues with over estimations, which lead to over allocation of this unit's budget. To curb this, modern cost controls need to be effectively applied. This means effective practices and regular monitoring, as it is stated by Chen et al (2022) that organisations use cost management strategies to monitor, analyse and eventually increase the effectiveness of areas within their activities, such as departments and divisions.

5.5 Limitations

This investigation had limitations, just like every other scientific study. However, the researcher has ensured the study's research goals regarding validity and reliability were attained. Only quantitative data was used in this study. This was because there was a shortage of time and resources and because the study was only conducted within one public organisation, the eThekwini HSU. Additionally, few government departments have performed research on the relationship between operational performance and cost control. As a result, little research has been done on this topic.
To increase the dependability of the results, additional thorough research is needed with which to compare the existing findings.

This study explores the role of cost controls on improving operational performance at the eThekwini HSU. The HSU employees were the target group, and data gathering did not include employees from other government departments. Additionally, only staff from the internal control and expenditure area was allowed to participate in the study, due to the interest in individuals who directly contribute to the implementation of cost controls and have a working knowledge of the performance assessment instruments within this unit. Data collection was delayed because of the smaller target population as it was crucial that as many of them as possible be included in the study. All potential participants in this study had an equal chance of being chosen at random for participation. Since only questionnaires were provided, the analysis for this study was based on a single data collection tool.

5.6 Suggestion for future research

Given this study's limitations, it may be concluded that there is still a void in the empirical literature that is relevant to this study. According to the researcher, the following areas can be the focus of future study:

- The descriptive study of the role of cost controls in improving operational performance in other government departments including municipalities.
- An empirical study that investigates the effort to improve operational performance on municipal levels.
- An empirical study to examine the effectiveness of modern cost controls on government budget allocation.
- The government's role to improve the application of cost containment measures.

5.7 Contribution of the study

The motivation behind this research was first the findings of the AG report on the operational performance of human settlement departments for the past years. The
study aimed to look at the role of cost controls on improving operational performance. This research aimed to overcome the factors compromising operational performance. Therefore, this research gives empirical findings on the role of cost controls in improved operational performance.

This research looked directly into the factors that influence the role of cost controls and their effect on operational performance. This study also sought to establish exactly what cost controls are in place in the eThekwini HSU and the knowledge of modern techniques as a tool to improve the operations. This study aimed at increasing the prioritisation of the role played by these techniques and how they can be applied by every organisation. The study also provided factors that can internally affect the current cost controls and the extent of the external variables on operational performance.

This research must be able to make a meaningful contribution to the body of knowledge, be helpful in providing a framework for a plan to examine the impact of these cost controls and be of practical utility at the eThekwini HSU.

Although there have not been many studies on the relationship between operational effectiveness and cost restrictions in government agencies, this research has added to the body of knowledge. By presenting additional literature and findings, this study will enhance the material that is already publicly available. As increased attention has been placed on cost controls in profit-making organisations and manufacturing industries, this study tackles the paucity of literature and empirical evidence on the impact of cost controls in enhancing operational performance in government departments.

Since there is little relevant research on the function of cost controls and operational performance in government agencies, this study fills the gap. Utilising the established frameworks, it also offers a clear direction on the function of cost controls. For researchers who will be creating their own studies to add to the body of knowledge, the research offers a wealth of resources. Additionally, it offers recommendations for practitioners starting their journey toward cost controls for enhancing operational performance.
5.8 Summary

The purpose of the research was to better understand how cost controls can improve operational performance. However, it is now widely acknowledged that cost control techniques can improve operational performance, particularly in the eThekwini HSU. The findings of this study show how successfully cost controls are working in the eThekwini HSU. The literature and research questions were derived from the goals that were defined for the study. The design of the research questions employed to accomplish the goals of this study served as a driving force behind the findings.

Additionally, the results offered ample proof that most respondents lack proper knowledge of cost control strategies. Recommendation for future research was suggested based on what was covered in this study.


Doorasamy, M. and Garbharran, H. 2015. The role of environmental management accounting as a tool to calculate environmental costs and identify their impact on a


Karanja, J., Mwangi, E. and Nyaanga, P. 2012. Adoption of modern management accounting techniques in small and medium (SMEs) in developing Countries: A case study of SMEs in Kenya. *St Paul’s University, Kenya*.


Lungisa, S. and Nzewi, O.I., The utilisation of normative ethics theories as catalysts for consequence management in municipal governance in South Africa.


Mhlaba, J. Q. 2018. The impact of leadership and management capacity on municipal service delivery in Bushbuckridge Local Municipality.


Ramatsoma, P.E., 2023. Stakeholder perceptions on the factors influencing corporate governance at the Greater Tzaneen Municipality, Limpopo Province, South Africa.


APPENDIX A: COVERING LETTER

P O Box 279
Umzinto
4200
04 December 2020

Mr Thobani Zungu
Head of Department
Human Settlement Unit
15th Floor, Shell House
221 Anton Lembede Street
Durban
4001

Dear Mr Zungu

REQUEST FOR PERMISSION TO CONDUCT A RESEARCH STUDY

I, Msawenkosi Cedric Ngubo, request your permission for my study, for the requirements of Master's Degree in Management Accounting at the Department of Management Accounting in the Faculty of Accounting and Informatics at Durban University of Technology, to be carried out in your department. The title of the research is: Cost control and operational performance at the eThekwini Human Settlement Unit. The participation in this study is voluntarily and no one will be forced to participate. The research will ensure privacy of information that will be provided by participants. Please be ensured that the information provided will be treated with confidentiality and it will not be used for any other purpose except for this degree only. The findings of the study will make a valuable contribution to the eThekwini Human Settlement Department. The survey will take approximately five to ten minutes to complete. I am looking forward to
having you as a participant in this study. Should you have any enquiries, feel free to contact me on my email address: 21526655@dut4life.ac.za or personal email address: msawenkosicedric@gmail.com, or via my cellphone number 061 6052453. You can also contact my supervisor, Dr. F. Marimuthu, on ferinas@dut.ac.za or 031 373 5646 or the co-supervisor, Dr. Z.W Nzuza on 031 373 5351.

Kind regards

Msawenkosi Ngubo (21526655)
APPENDIX B: QUESTIONNAIRE

QUESTIONNAIRE

The purpose of this questionnaire is to ascertain your opinions in order to investigate the role of cost controls in improving operational performance of the eThekwini Human Settlement Unit.

Section A: Demographic Information

Please tick only one box for each of the following questions.

1. How old are you (In years)?

<table>
<thead>
<tr>
<th>Between 18 to 30</th>
<th>Between 31 to 40</th>
<th>Between 41 to 50</th>
<th>Over 50</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. What is your gender?

<table>
<thead>
<tr>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. Please indicate the section you are employed in between the following:

<table>
<thead>
<tr>
<th>Internal Control</th>
<th>Expenditure control</th>
<th>Finance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

158
4. Please indicate your highest level of qualification:

<table>
<thead>
<tr>
<th>Matric (Gr 12)</th>
<th>Higher certificate</th>
<th>Diploma</th>
<th>Degree</th>
<th>Honours</th>
<th>Other</th>
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</table>

If you have answered other, please indicate the qualification here:

-------------------------------------

5. Please indicate your familiarity with modern cost control techniques:

<table>
<thead>
<tr>
<th>No knowledge</th>
<th>General</th>
<th>Good</th>
<th>Extensive</th>
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</thead>
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6. For how long have you been working in the organisation?

<table>
<thead>
<tr>
<th>Less than 1 year</th>
<th>1 to 10 years</th>
<th>11 to 20 years</th>
<th>More than 20 years</th>
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</table>
SECTION B: Cost control techniques applied by the eThekwini Human Settlement Unit

The next question shows a number of statements relating to the effective application of the various modern cost control techniques applied by the Human Settlement Unit.

Please indicate your opinion on the following statements with a cross (X) in the appropriate column – Indicate only one X for each statement, where:

SD = strongly disagree, D = Disagree, N = Neutral (Neither agree nor disagree), A = Agree, SA = Strongly agree

<table>
<thead>
<tr>
<th>Statements</th>
<th>SD</th>
<th>D</th>
<th>N</th>
<th>SA</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. Budgeting technique is effectively applied</td>
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<tr>
<td>8. Software integration is applied</td>
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<tr>
<td>9. Time management is effectively applied</td>
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<tr>
<td>10. Internal audits technique applied</td>
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<tr>
<td>11. External audits is a cost control technique applied</td>
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<tr>
<td>12. Costs classification technique is effectively applied</td>
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<td>13. Cost estimation is a cost control technique applied</td>
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<tr>
<td>14.</td>
<td>Decision-making is one of the cost control technique applied</td>
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<tr>
<td>15.</td>
<td>Standard costing technique is effectively applied</td>
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<tr>
<td>16.</td>
<td>Ratio analysis is one of the cost control techniques used effectively</td>
<td></td>
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<tr>
<td>17.</td>
<td>Value analysis technique is effectively applied by the Human Settlement Unit</td>
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<tr>
<td>18.</td>
<td>Other, please specify and rate</td>
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<td>..........................................................</td>
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</tbody>
</table>

**SECTION C: Factors influencing cost controls to improve operational performance**

This section lists statements which focus on the various factors influencing cost controls.

Please indicate your opinion on the following statements with a cross (X) in the appropriate column - Indicate only one X for each statement, where:

**SD** = strongly disagree, **D** = Disagree, **N** = Neutral (Neither agree nor disagree), **A** = Agree, **SA** = Strongly agree

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<tbody>
<tr>
<td>Internal factors which influence cost controls in improving operational performance in this unit</td>
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161
<p>| | |</p>
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<tbody>
<tr>
<td>19</td>
<td>Poor Total Quality Management has led to wasteful use of the unit's facilities</td>
</tr>
<tr>
<td>20</td>
<td>There is a need for a better organisational structure to enhance the operations of the unit</td>
</tr>
<tr>
<td>21</td>
<td>The lack of ethical decision-making has affected the unit’s operational performance</td>
</tr>
<tr>
<td>22</td>
<td>There is still a need to enhance internal auditors’ training for better financial management</td>
</tr>
<tr>
<td>23</td>
<td>There is poor audit operations due to lack of internal auditors’ ethical behaviour</td>
</tr>
<tr>
<td>24</td>
<td>Staff attitude has increased the productivity and the unit’s performance</td>
</tr>
<tr>
<td>25</td>
<td>Management and employee relationship has provided good working environment</td>
</tr>
<tr>
<td>26</td>
<td>Staff segregation of duties has led to good internal control</td>
</tr>
<tr>
<td>27</td>
<td>Transparency with citizens has provided good governance</td>
</tr>
<tr>
<td>28</td>
<td>Poor information management resulted in a lack of timely and relevant data</td>
</tr>
<tr>
<td></td>
<td>Staff communication helps achieve the goals of this unit</td>
</tr>
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<td>---</td>
<td>----------------------------------------------------------</td>
</tr>
<tr>
<td>30</td>
<td>The lack of advanced technology (outdated systems) affect organisational processes in this unit</td>
</tr>
<tr>
<td>31</td>
<td>Positions are filled by adequate and skilled staff members</td>
</tr>
<tr>
<td>32</td>
<td>Teamwork helps achieve the goals of the unit</td>
</tr>
<tr>
<td>33</td>
<td>The lack of good leadership has contributed to poor service results</td>
</tr>
<tr>
<td>34</td>
<td>Organisational culture in this unit improves operational performance</td>
</tr>
<tr>
<td>35</td>
<td>Poor budget planning contributes to poor infrastructure projects</td>
</tr>
<tr>
<td>36</td>
<td>Lack of accountability by political members greatly affects the unit’s ability to improve performance</td>
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</table>

**External factors which influence cost controls in improving operational performance in this unit**
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<table>
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<tbody>
<tr>
<td>37</td>
<td>The highly demanding market environment of the units has led to insufficient service delivery</td>
</tr>
<tr>
<td>38</td>
<td>Environmental uncertainty resulted in operational risks for the unit</td>
</tr>
<tr>
<td>39</td>
<td>Socio-political changes affects the unit's ability to provide service</td>
</tr>
<tr>
<td>40</td>
<td>Customer demands have improved the unit's operational processes</td>
</tr>
</tbody>
</table>

41. **Any other factors:**

Please provide any other cost control factors that have not been listed above that may influence the division to improve operational performance

Internal factors

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................................................................................................................................................

External factors

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**SECTION D: Effect of cost control on operational performance**

This section lists statements which focus on the effect of cost control on operational performance.
Please indicate your opinion on the following statements with a cross (X) in the appropriate column - Indicate only one X for each statement, where:

**SD** = strongly disagree, **D** = Disagree, **N** = Neutral (Neither agree nor disagree), **A** = Agree, **SA** = Strongly agree

<table>
<thead>
<tr>
<th>Statements</th>
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<tr>
<td>ADMINISTRATION</td>
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<td>42. Cost control leads to efficient use of the unit’s consumables i.e.</td>
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<td>stationery</td>
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<td>43. Cost control leads to proper use of training and development expenditure</td>
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<td>44. Cost control allows the department to efficiently control spending on</td>
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<tr>
<td>operational payments</td>
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<tr>
<td>45. Through cost control, there is better acquisition of machinery and</td>
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<tr>
<td>equipment</td>
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<td>46. Through cost control, the supply of fleet services improved</td>
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<td>47. Through cost control, there is effective utilisation of financial</td>
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<tr>
<td>asset payments budget</td>
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<td>48. Overall administration programme can be improved through effective</td>
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<tr>
<td>use of cost controls</td>
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</tbody>
</table>
49. Cost control leads to better control over salaries and wages expenditure

50. Through cost control, the unit’s transfers and subsidies are more efficient.

51. Compensation to employee’s expenditure budget is effectively controlled through cost control

52. Cost control leads to better management of the travel and subsistence expenditure

53. Cost control improves budget allocation in the human settlement unit’s policy, strategy, and planning programme

**Section D continued…**

54. Through cost control, over allocation of funds in the programme management unit is controlled

55. Through cost control, under spending on current payments for the programme is easily monitored
56. Through cost control, overestimation of costs related to transfers and subsidies is controlled

57. Cost control monitors the consistent rise in overestimation of costs on minor assets

58. Through cost control, subsidies on municipal bank accounts expenditure are efficiently managed

59. Cost control improves spending over the departmental agencies expenditure

60. Through cost control, human settlement development grant is efficiently controlled

61. Through cost control, the expenditure of transfer and subsidies between provinces and municipalities is maintained within the budget

62. Through cost control, the title deed restoration expenditure grant is kept at its minimum

General comment:

Please provide any other cost control effects that have not been listed above that you think influence operational performance in your division.
End of questionnaire

Thank you for your participation in this research.
APPENDIX C: LETTER OF INFORMATION AND CONSENT

LETTER OF INFORMATION

Title of the Research Study: Cost control and operational performance in the eThekwini Human Settlement Unit

Principal Investigator/s/researcher: M C Ngubo, Master of Accounting: Cost and Management

Co-Investigator/s/supervisor/s: Dr F. Marimuthu, PhD: Finance and Dr Z W Nzuza, PhD: Accounting

Brief Introduction and Purpose of the Study:

Cost controls are also referred to as management accounting techniques that can be applied by management of an organisation to improve cost efficiency by reducing their costs. These techniques are an avoidance of unproductive use of the organisations’ resources. The purpose of this research is to investigate what cost controls are applied by the eThekwini Human Settlement Unit and how effective they are on its operational performance. The aim of the study is to investigate the role of cost controls on improving the
operational performance in the eThekwini Human Settlement Unit.

Greetings: Good Day

Introduce yourself to the participant: I am a 5th year student at DUT doing research for my Master’s degree in Cost and Management Accounting.

Invitation to the potential participant: I would like to invite you to participate in the research.

What is Research: Research is the systematic process of collecting and analysing information in order to increase our understanding of the phenomenon under study. It is the function of researcher to intentionally enhance our understanding of a phenomenon and to communicate that understanding to others. Research is finding out the things that we don’t know. Research is to acquire new knowledge. In order for society to progress, new knowledge about the world must be constantly generated. Gaining new knowledge involves a process of formulating specific questions and then finding answers to them, in order to gain a better understanding about ourselves and our environment.

Outline of the Procedures: The aim of the study is to investigate the role of cost controls on improving the operational performance in the eThekwini Human Settlement Unit. The objectives of this research are to examine what cost control techniques are applied by the eThekwini Human Settlement Unit, investigate factors influencing cost controls in improving operational performance in the eThekwini Human Settlement unit, and explore effectiveness of cost controls on improving operational performance of the eThekwini Human Settlement Unit.

Participants will come from the following sections: namely Accounts control, Expenditure control, Financial control and Budgeting team. Data will be collected from every individual within the target population of 35. Data collection will be administered via emailed questionnaires. To increase the response rate, hand delivered questionnaires will also be issued to the target population. In terms of the emailed questionnaire, a link will be provided that will allow the respondent to access the online-based questionnaire, where a request to fill in the questionnaire will appear. In the case of unsatisfactory response rate from the emailed questionnaire, the hand delivered questionnaire will then be in issue. The questionnaires will be accompanied by a consent and covering letter. After two to three weeks of the distribution of the original questionnaire, a letter of reminder will be sent to the participants. To answer the questionnaire should not take more 45 minutes.

Risks or Discomforts to the Participant: Participation in the study will not cause any discomforts or risks to the participant. There will be no harmful procedures performed during the study.

The participant is entitled to withdraw from the study at any time should they wish to do so and will still continue to receive the appropriate standard of care. Participation in the study will be voluntary, therefore the participant is free to withdraw at any stage without any form of explanation.
Benefits: The study will broaden the knowledge of both the participant and the researcher, and thereby encourage further advancement of research in this unit.

Remuneration: There will be no payment of any kind for participation in the study.

Costs of the Study: There are no costs.

Confidentiality: Every participant in this research will be made aware that information remains confidential and anonymous and will only be used for the purpose of this study and nothing else. This will be in writing and assured in the consent form attached to the questionnaire. Anonymity will be maintained, there will be no requirement for any personal information to be supplied by the participant. Data collected will be secured and stored in a locked office of the research study personnel at DUT. Access to this information shall only be given to the researcher and the supervisor.

Results: The results of this research will be published through an article journal. This will ensure a wide spread and accessibility of the result to any interested party.

Research-related Injury: This research will not cause any injury to the participant; the study will mainly involve answering of the questionnaire instrument.

Storage of all electronic and hard copies including tape recordings (How, where, who has access, security measures in place, duration of storage, fate of the data at the end of the study, etc.): Upon successful completion of the data collection, data instrument will be kept in a secure DUT locked office. This office will only be accessed by the researcher and the supervisor throughout the duration of this research. Data instruments will be physically destroyed by the researcher after five years.

Persons to contact in the event of any problems or queries: Supervisor, Dr F. Marimuthu, co-supervisor Dr Z.W. Nzuza. Please contact the researcher Mr M. C. Ngubo: Tel no. 0616052453, supervisor Tel no. 0313735646 or the Institutional Research Ethics Administrator on 031 3732375. Complaints can be reported to the Director: Research and Postgraduate Support Dr L Linganiso on 031 3732577 or researchdirector@dut.ac.za.

General:

A copy of the information letter should be issued to participants. The information letter and consent form must be translated and provided in the primary spoken language of the research population, e.g. isiZulu.
CONSENT

Full Title of the Study: Cost control and operational performance at the eThekwini Human Settlement Unit

Names of Researcher/s: Msawenkosi Cedric Ngubo

Statement of Agreement to Participate in the Research Study:

- I hereby confirm that I have been informed by the researcher, ________________ (name of researcher), about the nature, conduct, benefits and risks of this study - Research Ethics Clearance Number: __________,

- I have also received, read and understood the above written information (Participant Letter of Information) regarding the study.

- I am aware that the results of the study, including personal details regarding my sex, age, date of birth, initials and diagnosis will be anonymously processed into a study report.

- In view of the requirements of research, I agree that the data collected during this study can be processed in a computerised system by the researcher.

- I may, at any stage, without prejudice, withdraw my consent and participation in the study.

- I have had sufficient opportunity to ask questions and (of my own free will) declare myself prepared to participate in the study.

- I understand that significant new findings developed during the course of this research which may relate to my participation will be made available to me.

_________________________  __________  _____  ______________
Full Name of Participant Date   Time   Signature   /   Right
Thumbprint

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I, ________________ (name of researcher) herewith confirm that the above participant has been fully informed about the nature, conduct and risks of the above study.

Full Name of Researcher       Date       Signature

Full Name of Witness (If applicable)       Date       Signature

Full Name of Legal Guardian (If applicable)       Date       Signature
Please note the following:

Research details must be provided in a clear, simple and culturally appropriate manner and prospective participants should be helped to arrive at an informed decision by use of appropriate language (grade10 level-use Flesch Reading Ease Scores on Microsoft Word), selecting of a non-threatening environment for interaction and the availability of peer counselling (Department of Health, 2004).

If the potential participant is unable to read/illiterate, then a right thumb print is required and an impartial witness, who is literate and knows the participant e.g. parent, sibling, friend, pastor, etc. should verify in writing, duly signed that informed verbal consent was obtained (Department of Health, 2004).

If anyone makes a mistake completing this document e.g. a wrong date or spelling mistake, a new document has to be completed. The incomplete original document has to be kept in the participant’s file and not thrown away, and copies thereof must be issued to the participant.

References:


NOTE: Information in brackets in the Letter of Information is to be used as a guide in completing the Letter of Information. This information as well as the general section at the end of the Letter of Information and Consent document must be deleted before attaching the document to the PG 2a.
Faculty Research Office
Durban University of Technology

Date January 18, 2021

Student: Msawenkosi Cedric Ngubo
Student Number: 21526655
Degree: Master of Accounting (Management Accounting)
Email: 21526655@dut4life.ac.za
Supervisor: Dr F. Marimuthu
Supervisor email: Ferinas@dut.ac.za @dut.ac.za

Dear Mr Ngubo

ETHICAL APPROVAL: LEVEL 2

Your email correspondence in respect of the above refers.

Your proposal for Master of Accounting (Management Accounting), titled ‘Cost control and operational performance at the eThekwini Human Settlements Unit’, was submitted to two ethical reviewers.

I am pleased to inform you that the Faculty Research Ethics Committee (FREC) following feedback from two reviewers, has granted preliminary permission for you to conduct your research.
When ethics approval is granted:

You are required to present the letter at your research site(s) for permission to gather data. Please also note that your research instruments must be accompanied by the letter of information and the letter of consent for each participant, as per your research proposal.

This ethics clearance is valid from the date of provisional approval on this letter for one year. A student must apply for recertification 3 months before the date of this expiry. Recertification is required every year until after corrections are made, after examination, and the thesis is submitted to the Faculty Registrar.

A summary of your key research findings must be submitted to the FRC on completion of your studies.

Kindest regards.

Yours sincerely

Dr Mogiveny Rajkoomar

FREC Chair

Faculty of Accounting and Informatics

Durban University of Technology

Ritson Campus

Durban, South Africa 4001
For attention:
Chair of Research Ethics Review Committee
Faculty of Accounting and Informatics
Department of Management Accounting
Durban University of Technology
Steve Biko Campus
4001

24 March 2021

RE: LETTER OF SUPPORT TO M.C NGUBO, STUDENT NO. 21526655 GRANTING PERMISSION TO USE ETHEKWINI MUNICIPALITY AS A STUDY SITE FOR A DOCTORAL RESEARCH

The Finance Department and Municipal Institute of Learning (MILE) in eThekwini Municipality, have considered a request from Msawenkosi Cedric Ngubo to use eThekwini Municipality as a research study site in fulfillment of a Master of Accounting (Management Accounting) research study entitled “Cost Control and Financial Performance in eThekwini Human Settlements Unit”

We wish to inform you of the acceptance of this request and hereby assure the student of our utmost cooperation towards achieving his research goals; the outcome which we believe will help this municipality improve on its services using the research outputs. The student is reminded of the ethical considerations as well as the current COVID-19 related regulations as per the Disaster Management Act (2020) when conducting the research. In return, we stipulate as conditional that via MILE, the student presents the results and recommendations of this study to the related unit/s on completion.

Wishing the student all the best.

Ogeetha Rayen
Dep. Head: Corporate Accounts
eThekwini Municipality

Dr Collin Pillay
Program Manager: MILE
eThekwini Municipality

I hereby accept as conditional that I will comply fully as per the conditions stipulated above.

Signed: ........................................... Date: ...........................................

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