



**IMPLEMENTATION OF FACILITIES MANAGEMENT STRATEGY
FOR AMATHOLE DISTRICT MUNICIPALITY**

BY

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ABSTRACT

Facilities management is a profession that encompasses multiple disciplines to ensure the functionality of the built environment by integrating people, places, processes and technology. It combines management and business with the most current professional and technical knowledge to provide a people-oriented and effective work environment.

The study has the following objectives:

- to determine whether pro-active planning in order to optimise sustainable physical infrastructure is currently being carried out;
- to determine whether the cost structure of facilities management is being analysed to ensure proper planning that is aligned with the budget and
- to determine whether the organisational structure of facilities management (FM) is developed and fully staffed with qualified officials and that it is being operated from the correct department. This will ensure that facilities management carries out its mandate of creating jobs.

The mixed research methodology was used in this study as both quantitative and qualitative techniques were employed in gathering, organising and analysing information obtained from the participants. Pilot questions were distributed to all relevant managers within the Amathole District Municipality. The primary data was gathered from Directors, Heads of Departments (HODs), general managers, senior managers, unit managers and assistant managers with a view to ascertaining their level of understanding of the importance of facilities management (FM) within the Amathole District Municipality. The secondary data for this study was obtained from a literature review of relevant publications from various sources, such as reports, books, the internet and articles. From the respondents' responses, it can be noted that facility management is of benefit to the organization in that it provides for cost value benefit, the development of policies, safety, good property management and an efficient security system. One of the main drawbacks is the lack of a facilities manager in the department. No Senior Manager has been appointed with the facilities management portfolio, which would assist the top management in making informed decisions. As a result, there is no facilities management strategy, policy or framework to guide the portfolio in the right direction.

Keywords: facilities management, implementation, strategy, municipality, public sector.

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CHAPTER 1

INTRODUCTION AND BACKGROUND

1.1 INTRODUCTION

The primary responsibility of a municipality is to make sure that its citizens are provided with services that satisfy their basic needs. Leach, Stewart and Walsh (1994:5) define local authorities as service providers who aim to meet the demands, needs and aspirations of those for whom the service is provided.

Various pieces of legislation are in place to enable municipalities to carry out their mandate effectively and efficiently. Chapter 5 of the Local Government: Municipal Systems Act 32 of 2000 requires a municipality to adopt and implement an Integrated Development Plan (IDP), which serves as a tool to guide and inform budgeting, management and decision-making with regard to service delivery and development within a municipality.

In terms of the Local Government Capital Asset Management Guideline (2016:22), the municipality is required to adopt an integrated approach to asset / facilities management by:

- converting the municipal strategy into an asset management strategy and producing plans based upon an analysis of service delivery options;
- formulating an asset / facilities management strategy that consists of detailed plans for acquisitions and replacements, operation and maintenance and disposals in line with municipal policies;
- informing the IDP and the annual budget by means of the detailed plans;
- funding each approved asset management plan appropriately through the budget;
- including the service delivery and budget implementation plan (SDBIP) and
- reporting on the performance of assets as measured in terms of service delivery based upon an approved SDBIP, budget and IDP.

According to the National Infrastructure Maintenance Strategy (NIMS) 2006, infrastructure in the form of buildings, roads, water and sewerage systems, electricity and other services, supports quality of life and forms part of the foundation of a healthy economy. The blueprint for a new South African economy, the Accelerated and Shared Growth Initiative for South Africa (ASGISA), places maintenance high on the developmental agenda as a key to

sustainable development and economic growth. Infrastructure investment and maintenance will not only improve infrastructure performance and underpin sustainable services, but will also contribute significantly towards economic growth and the creation of long-term jobs.

The democratic South African Government of 1994 evaluated the imbalances in infrastructure that characterised the nation. They then embarked on an ambitious plan to put matters right by addressing the backlog and investing in providing water for 15 million people.

It should be mentioned that all spheres of government, as well as state-owned enterprises, face the challenge of operating and maintaining old and new infrastructure (Nizam & Ahmad, 2010). Despite good performance in some sectors, there is strong evidence that in numerous sectors much of the infrastructure of both pre and post 1994 is not being adequately maintained. Older infrastructure is often not being refurbished or renewed timeously and there is inadequate planning for preventative maintenance on newer infrastructure (Nizam & Ahmad, 2010).

Waste water treatment works are of particular concern. Other sectors of concern include water treatment works, water and sewerage reticulation, on-site sanitation, a number of provincial roads and provincial health and education facilities.

1.2 BACKGROUND

Government must use its valuable immovable assets efficiently and effectively to achieve service delivery objectives. In the past few years the concept of asset management has gained support on a global scale. The governments of numerous countries have embarked on programmes to implement asset management principles and have made annual and medium-term budgets subject to the compilation and approval of an asset management plan (Mustapa & Jusoff, 2008). These programmes demonstrate that the application of immovable asset management principles has distinct benefits that relate to service delivery, accountability, risk management and efficiency (Zawawi & Kamaruzzaman, 2009).

According to Zawawi and Kamaruzzaman (2009), improved service delivery is achieved by:

- improved alignment of immovable assets with service delivery and community expectations and
- determining and documenting communities' needs and expectations through formal consultation with stakeholders and agreements on service delivery levels.

Improved accountability is achieved by:

- documenting and publishing performance indicators with regard to the use of immovable assets;
- measuring performance indicators and the ability to benchmark results against similar operations and organisations;
- demonstrating in a transparent and systematic manner that services are delivered efficiently and effectively;
- implementing a basis for evaluating and balancing the service delivery requirements, costs and quality of service trade-offs and
- improving processes and accountability for capital and recurrent works.

According to the Government-wide Asset Management Policy (2005), improved risk management is achieved by:

- assessing the probability of immovable asset failure;
- determining the consequences and impacts of service delivery and
- developing risk management strategies to address the continuity of services.

According to Zawawi and Kamaruzzaman (2009), improved financial efficiency is achieved by:

- better allocation of limited government resources;
- improved decision-making based on the costs and benefits of alternative solutions;
- wider non-asset solutions that meet the demand for services;
- reducing the demand for new immovable assets through better integration of services and planning;
- recognising the full costs of owning, using, operating, maintaining and disposing of immovable assets over the life cycle of such assets and
- the more effective use and maintenance of existing immovable assets.

1.3 PROBLEM STATEMENT

1.3.1 Government-wide Immovable Asset Management Policy

The Government-wide Immovable Asset Management Policy (GWIAMP) (2005:2-3) states that historically, immovable asset management practices in government resulted in immovable assets slipping into disrepair due to improper funding and maintenance. In general, the culture of replacement rather than maintenance eventually costs governments more than what on-going preventative maintenance would have cost. Immovable asset management is given low priority within the context of other challenges that face the users, primarily as it is not their core business. As a result assets are not maintained at their optimal value. Over time this has resulted in government's immovable assets being stripped of their inherent value. This is due to not understanding the importance of facilities management.

1.4 OBJECTIVES OF THE STUDY

The study focused on the objectives listed below.

- To determine whether pro-active planning to optimise sustainable physical infrastructure is currently being carried out.
- To determine whether the cost structure of facilities management is being analysed to ensure planning that is aligned with the budget.
- To determine whether the organisational structure of facilities management (FM) is developed and fully staffed with qualified officials and that it is being operated from the correct department. This will ensure that FM carries out its mandate and creates jobs.
- To determine whether aspects such as infrastructure maintenance, emergency and urgent acquisition, acquisition of leased properties, transfer of facilities between municipalities, disposal of assets, the facilities asset register and capitalisation of immovable assets are in the facilities management strategy for the Amathole District Municipality (ADM).

1.5 RESEARCH QUESTIONS

- I. Is pro-active planning to optimise sustainable physical infrastructure being carried out in the Municipality?

- II. Is the cost structure of facilities management being analysed to ensure planning that is aligned with the Municipal budget?
- III. Is the facilities management department developed and fully staffed with qualified personnel and is properly operated?
- IV. Are aspects such as infrastructure maintenance, emergency and urgent acquisition, acquisition of leased properties, transfer of facilities between municipalities, disposal of assets, the facilities asset register and capitalisation of immovable assets are in the facilities management strategy for the Amathole District Municipality (ADM)?

1.6 ASSUMPTIONS

The following assumptions were made.

- The need for a facilities management strategy in municipalities will continue to exist.
- There are reasons for municipal managers' lack of knowledge about facilities management (FM).
- There are reasons for the lack of FM strategies within municipalities.

The following key aspects informed the literature review.

1.6.1 South African Legislation

South African legislation provides guidelines for what is expected of municipalities and the way in which to manage government infrastructure or facilities in order to render effective and efficient service delivery to the citizens of South Africa.

In terms of the Constitution of the Republic of South Africa 1996, Section 152 (1) stipulates that the objectives of local government are:

- to provide democratic and accountable governance for local communities;
- to ensure the provision of services to communities in a sustainable manner;
- to promote social and economic development and
- to promote a safe and healthy environment.

In order to achieve these objectives, each sphere of government needs to have good or well-managed infrastructure.

In terms of Chapter 8 of the Local Government: Municipal Finance Management Act 56 of 2003, Section 63 (1), the accounting officer of a municipality is responsible for the management of:

- (a) the municipality's assets, including the safeguarding and maintenance of those assets and
- (b) the municipality's liabilities.

In terms of Chapter 5 of the Municipal Structures Act 117 of 1998, Section 83 (3), a district municipality must seek to achieve the integrated, sustainable and equitable social and economic development of its area as a whole by ensuring integrated development planning and promoting bulk infrastructural development and services for the district as a whole.

The Government Immovable Asset Management Act, 2007 Section 3 states that the objectives of this Act are to:

- (a) provide a uniform immovable asset management framework in order to promote accountability and transparency within government;
- (b) ensure effective immovable asset management within government and
- (c) ensure there is coordination of the use of immovable assets with the service delivery objectives of national and/or provincial departments and that there is efficient utilization of the immovable assets.

1.6.2 Definition of Terms

1.6.2.1 Facilities Management

The South African Facilities Management Association (SAFMA) defines facilities management as an enabler of sustainable enterprise performance through the whole life management of a productive workplace.

Spedding (1995:3) defines facilities management as the practice of coordinating the physical work place with people and their functions within the organisation, thereby integrating the principles of business administration, architecture and the behavioural and engineering sciences. Botha (2005:1) holds that facilities management is the provision of a specialist management capability to plan, organise, control and supply a full range of technical and non-core support services that are essential for running any building or activity.

1.6.2.2 *Immovable Asset Management*

According to the guidelines in the User Asset Management Plan (2008:4), immovable asset management is defined as those management processes that ensure that the value of an immovable asset is optimised throughout its lifecycle and encompasses strategic planning, acquisition, operations, maintenance, management and disposal.

1.6.2.3 *Immovable Asset*

According to Government Immovable Asset Management Act (GIAMA) no. 19 of 2007 cited by the National Department of Public Works (NDPW) Facilities Management Policy (2012:3), an immovable asset is an asset that is immobile and steadfast, such as land and all immovable improvements on that land, which have enduring values and consist of assets that are of a residential, non-residential or infrastructural nature and may include machinery and equipment that has been installed and has become an integral part of the immovable asset. These can include both state-owned and leased assets.

1.6.2.4 *Strategy*

Griffin (1990:193) explained strategy as being well conceived if it comprises four basic areas, namely scope, i.e. the market area range in which the organisation will compete; resource deployment, i.e. the way in which the organization will distribute its resources across various areas; distinctive competence, i.e. specifies the distinctive competencies that the organisation has relative to its competitors and synergy, i.e. the way in which the various areas of the business are expected to complement one another. Thompson and Strickland (2003:3) define strategy as the game plan implemented by management to stake out a marketing position, conduct their operations, attract and satisfy customers, compete successfully and achieve their organisational objectives. Johnson and Scholes (1999:10) stipulate that strategy is the scope and direction in which an organisation, over an extended period, achieves advantages through the configuration of its resources within a changing environment, meets the needs of the market and fulfils stakeholder expectations.

1.6.2.5 *The Asset Strategy*

This is the top level of strategy in Total Asset Management planning that determines whether assets should be enhanced by capital investment, maintained or disposed of in order to continue their role of supporting service delivery. The asset strategy determines the relationships

between the service delivery strategy and capital investment, asset maintenance, asset disposal and office accommodation strategies. When developing an asset strategy the following questions are posed: Can service delivery be made less asset-dependent? Are the existing assets fully utilized? Is the capacity of existing assets appropriately located for effective service delivery? Is the capacity of existing assets sufficient to provide the required services (Total Asset Management Manual, 2003)?

1.6.2.6 Office Accommodation Strategy Plan

Office accommodation strategy determines whether accommodation assets or facilities should be enhanced through capital investment, maintained or disposed of. Investment in the office accommodation segment of the government's property portfolio represents a substantial recurrent cost (Total Asset Management Manual, 2003).

1.6.2.7 Capital Investment Strategic Plan

This involves the assessment of all investment options in order to meet service delivery requirements (purchase, lease, service contracts, private sector involvement and non-asset solutions and resources required e.g. assets, financials, human resources (HR), etc.), using the processes listed below.

- Directly linking asset investment with required service delivery outcomes.
- Maximising the benefits to be gained from the government's purchasing power.
- Improving the standard of assets and enhancing the capital value of stock.
- Achieving cost savings whilst maximising the benefits for the whole government (Total Asset Management Manual, 2003).

1.6.2.8 Asset Maintenance Strategic Plan

This plan aims to proactively manage the risks posed by the inability of assets to support service delivery strategies. The outcome is a more productive and reliable asset portfolio within the constraints of available resources. Maintenance planning involves an analysis of maintenance needs against agency and service delivery objectives and government priorities (Total Asset Management Manual, 2003).

1.7 LIMITATIONS

The subject of the study is wide-ranging and some of the areas might not have been explored adequately to satisfy the purpose of the study. The study focused on the implementation of facilities management within the Amathole District Municipality, where currently no strategy is in place. In essence, according to individual municipal websites, most South African municipalities lack a facilities management strategy. This implies that only a limited number of them know what facilities management is.

1.8 RESEARCH METHODOLOGY

There are three main types of methodology used by social researchers, namely quantitative, qualitative and mixed method research. The mixed method research methodology was used for this study as it enabled the researcher to obtain relevant information from a sample group through the use of a questionnaire and open-ended interview questions. According to Bless, Higson-Smith & Kagee (2007:44 - 45), quantitative research relies primarily upon the measurement and uses of various scales. Numbers form a coding system by means of which various cases and variables can be compared. Systematic changes in scores are interpreted or given meaning in terms of the actual world that they represent. Numbers have the advantage of being exact and they can be analysed using descriptive and inferential statistics. Qualitative focuses on the subjective experiences of the participants.

1.9 RESEARCH DESIGN

Babbie and Mouton (2001:647) define research design as a planned or structured framework describing the way in which one intends to conduct the research process in order to achieve the research objectives. Research designs can be classified according to whether it is an empirical or non-empirical study. Empirical studies or designs can be classified as either primary or secondary data analysis studies. Research designs that involve empirical data can also be classified according to the type of data i.e. numeric or textual data.

1.10 IMPORTANCE OF THIS STUDY

It is envisaged that this study will address the following issues.

- (a) The decay of infrastructure due to improper funding and maintenance.
- (b) Proactive planning to optimise making physical infrastructure sustainable.

- (c) Analysing the cost structure of facilities management to ensure proper planning that is aligned with the budget.
- (d) Ensuring that the organisational structure for FM is developed and fully staffed with qualified and trained personnel.
- (e) Maintaining facilities for optimal utilization.
- (f) Ensuring healthy, safe and secure environments for all departments in all state-owned and leased facilities.
- (g) Promotion of good investments in ADM properties.
- (h) Developing a strategy to encompass aspects such as emergency procurement, acquisition of facilities, transfer procedures to other institutions and disposal strategies.

1.11 ORGANISATION OF THE REMAINING CHAPTERS

Chapter 2 focuses on the literature review that was undertaken. The aim of this chapter was to review the existing literature related to facilities management.

Chapter 3 provides the research design and methodology that was used to collect the data.

Chapter 4 focuses on the presentation, analysis and discussion of the findings.

Chapter 5 presents the summary of the main findings, conclusions drawn from the results of the research, recommendations for the implementation of FM in municipalities and recommendations for future studies.

CHAPTER 2

2.1 INTRODUCTION

The Facilities Management Policy of the NDPW (2012:8) states that the government is the largest estate holder in the country. However, the condition of their buildings in most cases is very poor and does not enable officials to fulfil their service delivery mandate. The image of government buildings has become a cause for concern. Some buildings are an eyesore while others are vacant and have been occupied by vagrants (SAPOA, 2009). Some organs of state find it difficult to fulfil their delivery mandates due to the poor conditions of immovable assets (Hoffman & Viljoen, 2009).

Condition assessments reveal a daunting scenario indicating that the suitability, performance and functionality of these assets is poor and therefore requires an excessive financial injection to restore them to a habitable and reliable condition (Tonono, 2008). Organs of state cannot deliver services if the facilities they utilise are not fit for that purpose. Science has proved that it is more cost effective to repair and maintain an asset rather than leave it for an extended period without any maintenance. Properties that do not comply with legislation or regulations may result in government being faced with litigation by communities due to accidents, hazardous substances or security breaches.

The National Infrastructure Management Strategy (NIMS, 2006:4) recognizes substantial backlogs with regard to the maintenance of public infrastructure. Unless something is done soon and with great focus, the deterioration of government infrastructure will continue to haunt its users. This in turn places a burden on departments that resort to renting properties at exorbitant prices in order to deliver services. Infrastructure investment and maintenance will not only improve infrastructure performance and underpin service sustainability but will also contribute to economic growth and creating long-term jobs (Atkins & Brooks, 2009). The maintenance sector is an integral part of South Africa's total construction delivery capability, as its activities are on-going and mostly local in nature.

2.2 FACILITIES MANAGEMENT DISCIPLINE

2.2.1 Definitions of Facilities Management

The National Department of Public Works Facilities Management Strategy (NDPWFMS, 2012:9) states that facilities management has various interpretations depending on the organisation and country. The European Committee for Standardisation describes FM as the interpretation of processes within an organisation to maintain and develop the agreed upon services that support and improve the effectiveness of its primary activities (Lawson, 2009). According to this standard, FM pertains to space and infrastructure. This definition indicates that FM is the support function geared towards relieving occupants and users of fixed assets from non-core functions so that they can focus on core business (Flemming, 2014).

Elmualim, Valle and Kwawu (2012) define facilities management as being responsible for the coordination of all efforts related to planning, designing and managing buildings and their systems, equipment and furniture to enhance the organization's ability to compete successfully in a rapidly changing world. The International Facilities Management Association's (IFMA, 2009) definition states that facilities management is a profession that encompasses multiple disciplines to ensure the functionality of the built environment by integrating people, places, processes and technology. It combines management and business with the most current professional and technical knowledge to provide a people-oriented and effective work environment. The South African Facilities Management Association (SAFMA, 2010) defines FM as an enabler of sustainable enterprise performance through the whole life management of productive workplaces and effective support services.

These definitions have moved from the premises of the past when facilities management was traditionally regarded as the poor relation within the real estate, architecture, engineering and construction professions. This old school of thought saw FM as cleaning, repairing and maintaining buildings (Kanning, Vogler, Bernhold, Gellenbeck & Schlockermann, 2008). This notion persists in some public service circles. However, today FM covers a broad spectrum of real estate management, financial management, change management, human resources management, health, safety and contract management as well as building and engineering services, domestic services and other utilities' supplies (Atkin and Brooks, 2005:4 cited in Tonono, 2008:13).

During the past 30 years FM was considered to be a maintenance function and an overhead expense (Drion, Mellissen & Wood, 2012). Today, as they increasingly demonstrate their ability to boost bottom line profit, facilities managers have become asset managers. Buildings are like living organisms and, like any living thing, they need to be nurtured, understood and developed to their full potential. This moves away from the premise that buildings are merely structures, regarded as costs to an organisation, rather than investments (Elmualim et al., 2012). It is obvious that scholars have realised that buildings that are neglected by their owners affect the performance of an organisation in one way or another.

2.3 FACILITIES MANAGEMENT STRATEGY

There are numerous definitions of FM, but the most commonly used is that it is an integrated approach to operating, maintaining, improving and adapting buildings and an organisation's infrastructure in order to create an environment that strongly supports the primary objectives of the organisation (Atkin and Brooks, 2005:1 cited in Tonono, 2008: 30). The building portfolio in the public sector represents a substantial investment for the state and needs to accommodate and support a wide range of activities while taking competing needs into account. These activities demand an environment where the state has to identify its core business, for which an appropriate environment must be created in buildings but it cannot lose sight of its support services that are the non-core business (Elmualim, Shockley, Valle, Ludlow & Shah, 2010).

In most cases, an organisation must distinguish between the core business and non-core business as part of the drive for customer satisfaction and to achieve best value. FM creates an environment that is conducive to carrying out the organisation's primary operations with an integrated view of the services infrastructure, then using this to deliver customer satisfaction and best value through support for, and enhancement of, the core business (Hassan, 2011). FM is viewed as something that provide competitive advantage to the organisation's core business and enhance the organisation's culture and image. It is also reported that facilities management cause the physical assets to be cost effective, allow for future changes in the use of space and enhance an organisation culture and image (Hassan, 2011). Elmualim et al. (2010) reported that FM support people in their work and other activities enhance individual wellbeing and enable the organisation to deliver effective and responsive services.

The National Department of Public Works Facilities Management Policy (NDPWFMP, 2012: 12) provided various objectives of FM. One of the objectives is to provide a conducive environment and suitable space for all employees to perform their duties (NDPWFMP, 2012). The NDPWFMP (2012) further provided that the objectives of FM are to ensure that departments are able to provide services to the community effectively and efficiently and to provide support services to departments to enable them to concentrate on their core business. Providing protection for all those who use government-owned, immovable assets and promote the sustainability of immovable assets by ensuring regular maintenance of facilities are also the objectives of FM. It was also reported by the NDPWFMP (2012) that enabling departments to apply principles of sustainability in energy and natural resource consumption and providing for best practice in government facilities management functions are some objectives of FM.

2.3.1 Facilities Management Categories

2.3.1.1 Planning

All departments must undertake planning for FM to ensure an appropriate working environment. Planning for FM must take place at strategic and operation levels by user departments. Such plans will be translated into FM requirements for submission to the DPW.

2.3.1.2 Infrastructure provisioning

The following functions must be provided for each immovable asset:

- maintenance - planned, unplanned statutory and corrective;
- electrical services - this includes servicing of lifts, escalators, electronic switchgear, light fittings etc.;
- plumbing - this entails all plumbing and domestic water systems, pumps and drains, taps, sewerage and effluent systems, toilets, hand basins and any other item or fixture on the premises deemed to require plumbing.

2.3.1.3 Building Maintenance

This entails the roofs and waterproofing, gullies, gutters and pipes, security grilles, shutters, windows and doors, lighting, signage, interior finishes, fire escapes, fire stops, driveways and fencing perimeters. Ground maintenance includes watering, fertilization, horticulture,

landscaping and gardens to create an aesthetically pleasing environment. All routine tasks such as watering, fertilization, cultivation, pest control, weed control and irrigation maintenance should be undertaken during normal working hours.

2.3.1.4 Protection

This entails cleaning office meeting areas, the neat storage of consumables, the cleaning of exterior windows, cleaning of carpets, upholstery, screens, telephones and computers.

2.3.2 Facilities Management Products and Services

The National Department of Public Works Facilities Management Strategy (2012:20) identifies facilities management products and services within the Department of National Government as strategic, tactical and operational management planning (NDPWFM, 2012). Furthermore the provisioning of infrastructure; protection and services we reported as services within the Department of National Government. Planning, provisioning of operational infrastructure, protection and services were reported to be the functions in Facilities management.

2.3.2.1 Planning

Planning encompasses strategic, tactical and operational management as well business continuity planning. Furthermore tenant installation and management and relocation management are aspects of planning within facilities management. Planning also entails space and portfolio planning, portfolio specific planning, building plans and inspections (NDPWFM, 2012).

2.3.2.2 Provisioning of Operational Infrastructure

Provision of operational infrastructure encompasses the technical operations planning and the technological and physical systems planning (NDPWFM, 2012). Telephony systems and management as well operations and call centre services were found to be with the provisioning of operational infrastructure function. Furthermore technical maintenance either planned, unplanned, statutory and corrective, including plant, equipment and air conditioning, electrical and plumbing are part of the provisioning of operational infrastructure function (NDPWFM, 2012). The conservation of resources such as water and energy, ground maintenance, horticulture, office plants and flowers as well parking space of tenants and visitors are components with the operational infrastructure function.

2.3.2.3 Protection

Protection is one other function of facilities management. The function consists of various activities which are health and safety, cleaning and hygiene as well pest control (NDPWFM, 2012). Hassan (2011) further provided fire safety, testing and inspections, security which entails access control, CCTV, fire systems and tactical response as activities within FM. According to Elmualim et al. (2010) waste management involving wet, dry, hazardous and confidential and recycling are activities within the protection function.

2.3.2.4 Services

The last function of facilities management is services. The function consists of activities such as mailroom or internal postal services, PABX / switchboard and help desk (NDPWFM, 2012). Laundry, catering and events management were activities that Hassan (2011) reported that they fall within the services function of financial management. Furthermore, vending and dispensing equipment, fleet management, emergency services such as the provision of utilities such as water are activities within the services function (NDPWFM, 2012). Curatorship and conservation services, porter services and convenience shops are also considered as activities within the services function of FM (Elmualim et al., 2010).

2.3.3 Development of Facilities Management Strategy

The development of a facilities management strategy is a project in its own right and must be undertaken rigorously, using appropriate techniques and tools. Numerous authors on strategic management have identified three important pillars of strategic management, namely analysis, choice or solution and implementation. Atkin and Brooks (2005:2) stipulate that an organisation should follow these three stages to produce an effective strategy for the management of facilities (Tonono, 2008:32). Analysis entails that all relevant facts are assembled, including the organisation's objectives, needs and policies, a review of resources, processes, systems and physical assets, together with their attributes in terms of space, function and utilization (Elmualim et al., 2010). Solution entails that the criteria for judging options are defined and evaluated against the organisation's objectives to produce an FM strategy (Hassan, 2011).

Implementation completes the strategic planning and development process through the establishment of an implementation plan that incorporates the key elements of procurement,

mobilisation, training, communication, review and feedback (Tonono, 2008:32). On completion, the facilities management strategy becomes an integral part of the organisation's strategic and operating plans and should comprises financial objectives; goals and critical success factors; customer focus strategy; procurement strategy; in-house outsourcing strategy; technical strategy; human resource plan; business processes and information and communication technology (Elmualim et al., 2010).

2.3.3.1 Strategic Analysis of Facilities Management

Strategic analysis is concerned with a thorough understanding of the present state of the organisation's real estate holdings and its approach to facilities management. According to Tonono (2008:33), the following strategic analysis elements are of paramount importance.

Service audit and review: This entails the organisational identification and differentiation between the core and non-core business activities. This will allow the organisation to focus its efforts on where they are most needed in terms of running the business. It is important that the organisation should critically examine existing policies in terms of corporate guidelines, performance standards, quality assurance, health and safety and other statutory requirements (Tonono, 2008).

Assessment of expectations and objectives: It is the responsibility of the organisation to clearly define its expectations and objectives for facilities. The objectives of FM must be embodied in a formal manner as part of the organisation's mission statement. These objectives should relate to the business needs as identified in the strategic plan (Atkins & Brooks, 2009).

Portfolio Audit: This is an important issue, as the provision of support services, maintenance plans and assessment of risk needs serious consideration in terms of asset management. Thorough investigation of the portfolio is important for determining the utilization of space and procedures (Tonono, 2008).

Resource Audit: Human resources are a key factor in the portfolio. It is important to perform a desktop analysis of personnel employed in the provision of facilities and support services. This exercise will assist in the determination of the capacity of the portfolio to cover in-house and outsourced arrangements. The resource audit should focus on people, (by determining their skill profiles and identifying gaps), service providers, (by assessing capabilities, scope and

terms of engagement), and systems (by establishing technological readiness and systems audits).

2.3.3.2 Developing solutions

This is the time for a robust and structured approach to the adoption of the information gathered during the analysis. Any information derived from the strategic analysis should be open, without bias and allow for new ideas and innovative solutions to flow. Atkin and Brooks (2005) state that this process entails the following issues of strategic choice (Tonono, 2008:34 - 35).

Generation of choices: At this stage the analysis and identification of gaps has been achieved as well as how well the attributes of FM match the needs of the organisation. This means that the generation of options is to close or bridge the gaps that were identified, as well as to align innovative solutions with present and future needs. It is important to play with creativity and even extend to thinking the unthinkable. This is the time for generating options and the focus should be on that, leaving evaluation for a later stage in the process.

Evaluation of options: This can be examined in the context of strategic analysis to assess their relative merits. These options should be built on strengths and aim to overcome weaknesses, while minimising the threats facing the business. It is about the assessment of the suitability of the strategy without forgetting its feasibility and acceptability to stakeholders.

Selection of options: This is a straightforward stage if the thorough and rigorous works undertaken in the preceding stages and the preferred options have been made very clear. At the conclusion of this stage, the facilities management strategy can be reflected in the organisation's overall strategic plan and its accommodation strategy.

2.3.3.3 Implementation of the Strategy

The implementation of the strategy is concerned with the translation of the strategy into organisational action through organisational structure and design, resource planning and the management of strategic change. Good strategic implementation involves creating a good fit between the way things are done internally and what it will take for the strategy to succeed. Once strategic implementation has been established, a policy statement should be developed that will take cognisance of operational plans and implementation. This plan should incorporate best practice in human resources management. It will include milestones, timetables and the

details of organisational risk management as they relate to facilities management. Atkin and Brooks (2005) advocate the following areas as important for the implementation of a facilities management strategy (Tonono, 2008:35).

Communication: Communication is an integral part of the successful implementation of the strategy. It is important that effective communication between the organisation and its stakeholders is maintained to ensure that all parties understand the implementation of the strategy. Everybody should be part of the discussion about the organisation and the structure. If this is not done, the implementation is bound to fail. Employees need to understand and recognise that FM is a broad subject with its own specialities, which require closer cooperation amongst them. Regular and clear communication is the only mechanism that will cultivate the required relationships among the employees.

People and the system: This is a very important aspect in the implementation of the strategy, which, when bringing about any change, needs to be carried out in a controlled manner. In order to achieve this, the organisation needs to develop employees' skills and understanding so that they are conversant with the meaning and practice of FM. Training and education, accompanied by individual mentoring, will undoubtedly achieve these aims and enhance competence. System and procedure development will ensure a sustainable facilities management implementation strategy. This should be an on-going exercise that creates a culture of continual improvement with periodic performance assessment.

Resource planning: Optimal use of resources requires planning. Planning and controlling the use of resources efficiently and effectively is a job in its own right. It is human to forget and information, communication and technology can help with this through the use of planning and scheduling software to allocate resources to individual tasks. The engagement of information technology (IT) will also assist in measuring progress and performance.

Procurement: This is a broad concept and is not only about inviting tenders or obtaining quotations and placing orders. A wide range of issues must be taken into account and more often than not this requires technical knowledge in the area of procurement. The principles of best practice in procurement must be adhered to as entrenched in public procurement

2.3.3.4 Implementation Plan of the Strategy

The National Department of Public Works Facilities Management Strategy (NDPWFMS, 2012:24) articulates that the guiding principles for facilities and property management in the DPW are to ensure that the user departments have ample time to deliver services to the community at large. The primary factors that necessitate a best practice model for facilities management are: compliance with the Public Finance Management Act No.1 of 1999; compliance with GIAMA and alignment with its draft guidelines; compliance with the Green Building Framework as part of sustainable building and environmentally responsible asset management; the need for user departments to focus on core business and improve service delivery and the need to maximise the use of accommodation as a means of property investment (NDPWFMS, 2012).

The main thrust of the facilities management conceptual framework is to manage the government's asset portfolio optimally to ensure that it adds value to service delivery. The strategy should aim at eradicating poverty while bringing infrastructure development and investment to national government. It will focus on maximising job creation, enterprise development and income generation through government programmes such as the Expanded Public Works Programme (EPWP) and property incubator programmes (PIP).

The critical issues that need to be taken into account during the implementation of the facilities management strategy are: the assessment of the department's organisational plan and ensuring an HR plan for FM training and capacity development is available. Also there is need to initiate a process to analyse the cost structure of facilities management followed by resuscitating existing workshops and to develop new workshops. Also one other critical thing is to ensure poverty alleviation and job creation programmes for cooperatives; to ensure the implementation of green building facilities, plan and budget and to ensure that projects are completed within time and at quoted cost effective management of terms of reference i.e. service level agreements (NDPWFMS, 2012).

With regard to FM contracts and tender documents, one must perform a strength, weaknesses, opportunities and threats (SWOT) analysis to determine the desired results for a facilities management contract. Furthermore it is believed one must perform gap analysis on existing contracts and evaluate them for effectiveness to ensure that they produce the desired results (Atkin & Brooks, 2005). According to Tonono (2008) standardising the scope of work, standardising the respective tender documentation and compiling a standardised set of facilities management documents in line with a facilities management contract specific to the project to be undertaken are also factors to take into consideration when dealing with contracts and tender documents.

During the implementation of the facilities management strategy, the department must take into account the development of the strategies discussed in the following sections.

2.3.3.5 Office Accommodation Strategy Plan

The office accommodation strategy determines whether accommodation assets or facilities should be enhanced by capital investment, maintained or disposed of. Investment in the office accommodation segment of the government’s property portfolio represents a substantial recurrent cost (Total Asset Management Manual, 2003).

Table 2.1: Office Accommodation Strategy Plan

Stage 1 Asset/Service Delivery	Stage 2 Asset Utilization	Stage 3 Asset Location	Stage 4 Asset Capacity	Stage 5 Asset Functionality	Stage 6 Evaluation	Stage 7 Implementation
Can service delivery be made less dependent on office accommodation?	Are accommodation assets fully utilised in service delivery?	Are accommodation assets appropriately located for effective service delivery?	Do accommodation assets have sufficient capacity to provide the required service delivery?	Are accommodation assets suitable for optimal service delivery?	Evaluate potential strategies and select the preferred strategies.	Prepare the office accommodation strategy.

2.3.3.6 Capital Investment Strategic Plan

This involves an assessment of all investment options to meet service delivery requirements (purchase, lease, service contracts, private sector involvement, non-asset solutions and resources required such as assets, finances, HR and so on), using the processes such as directly

linking asset investment with the required service delivery outcomes, maximising the benefits to be gained from the government’s purchasing power, improving the standard of assets and enhancing the capital value of stock and achieving cost savings whilst maximising the benefits for the government

Table 2.2: Capital Investment Strategic Plan

Stage 1 Project brief	Stage 2 Generate project options	Stage 3 Shortlist options	Stage 4 Compare options	Stage 5 Prepare plan
Translates service delivery outcomes into specific and detailed project objectives.	Consider all options, including non-asset solutions.	Select options that best satisfy service delivery outcomes. Evaluate shortlisted options.	Compare options and select the preferred option.	Detail all benefits of selected options.

2.3.3.7 Asset Maintenance Strategic Plan

This plan’s aim is to proactively manage the risk of assets not supporting service delivery strategies. The outcome is a more productive and reliable asset portfolio within the constraints of the available resources. Maintenance planning involves an analysis of maintenance needs against agency and service delivery objectives and government priorities (Total Asset Management Manual, 2003).

Table 2.3: Asset Maintenance Strategic Plan

Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6	Stage7
Define and segment assets to meet the service delivery strategy.	Determine the required asset performance.	Define maintenance resources and overall strategies.	Assess condition of assets and recommend maintenance action.	Assess maintenance costs.	Implement maintenance plan and programs.	Monitor and review maintenance plan.

2.3.3.8 *Asset Disposal Strategic Planning*

Asset disposal planning involves two separate and distinct elements; the detailed assessment of assets identified as surplus by the asset strategy, followed by an analysis of the physical disposal of the assets.

Table 2.4: Asset Disposal Strategic Planning

Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
Identify assets surplus to service delivery.	Benefits of disposal vs retention.	Value maximisation.	Disposal mechanism.	Disposal plan and implementation.

2.3.3.9 *THE NEW STRATEGIC FACILITIES MANAGEMENT SYSTEM STANDARD*

2.3.3.9.1 **Strategic Facilities Management Roadmap & Outputs**

The New Facilities Management System Standard (2015:9) emphasized the process approach citing the Integrated Organizational and Facilities Management (FM) activities, the six pillars of the facilities management standard and the certification of documentation, as indicated in Figure 1.

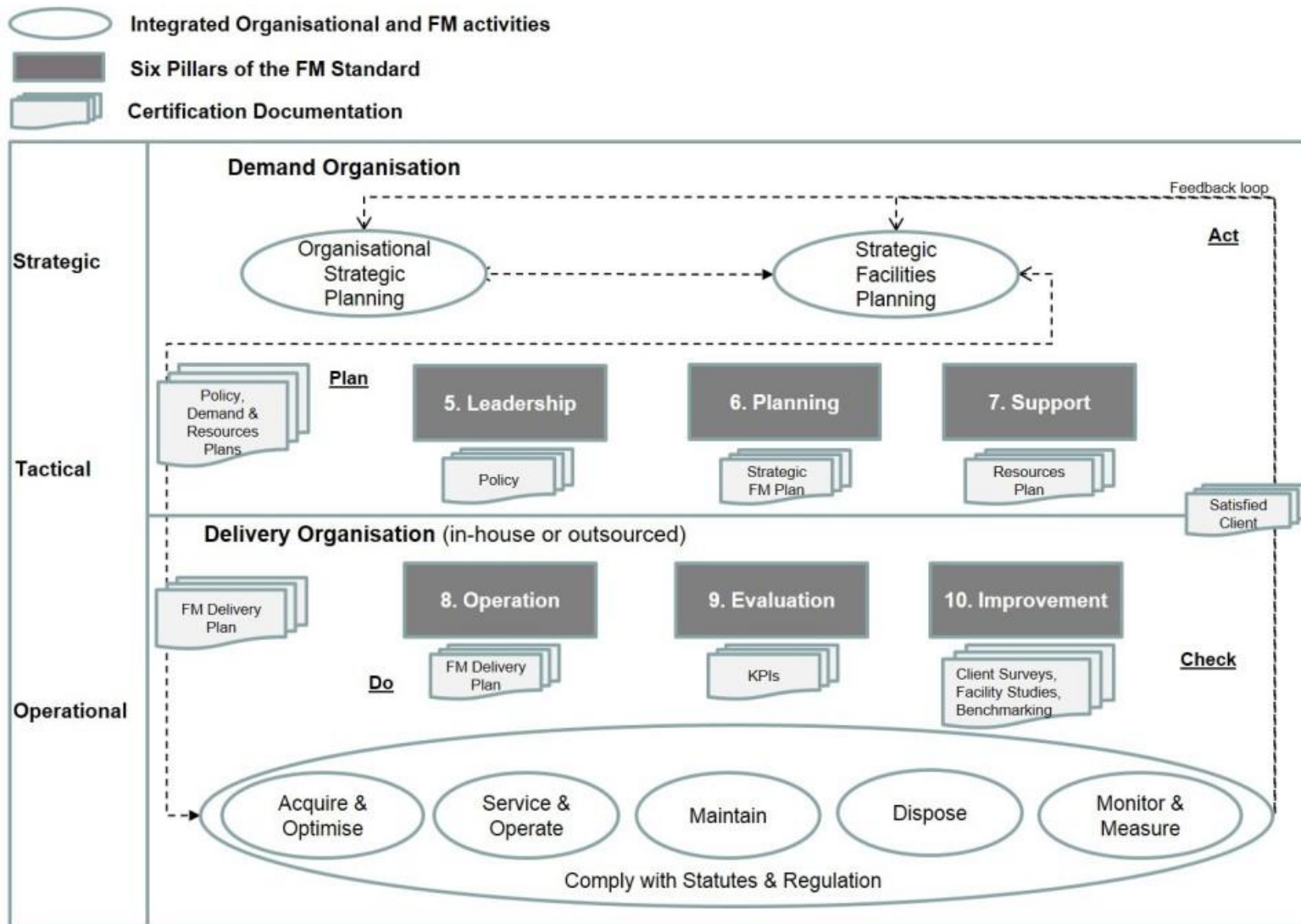
The core process in the Standard Facilities Management System (SFMS) begins with leadership, which is responsible for developing and approving the facilities management policy, aligning facilities planning with strategic objectives and ensuring that the requisite support in the form of financial, human and technological resources is in place. With these three strategic pillars in place, the organisation can implement and control the operation's processes to deliver the varied service lines in an integrated manner. Performance evaluation must be performed to monitor and ensure that targets are met. To complete the performance improvement cycle review, stakeholder surveys, facility studies and benchmarking should be undertaken to identify and implement initiatives for improvement.

The New Facilities Management System Standard (NFMSS, 2015:10) states that at organisation level, the SFMS (Standard Facilities Management System) is expected to improve the performance of the facilities management function in its support of the organisational strategy. The SFMS is an integrated part of the organisation's management strategy and is the

second largest expense after payroll in typical organisations. It should result from, and explicitly support, the organisational objectives or strategy and the organisational plan.

The SFMS comprises several building blocks, including but not limited to: the facilities management policy; the facilities management objectives; the strategic facilities plan (SFP); the functional plan and facilities management service delivery plan (FMSSDP), which are implemented in: operational planning and control; supporting activities; control activities and other relevant processes. The ultimate goal of the SFMS is to secure customer satisfaction. The customer, being the demand organisation with all its stakeholders, should express satisfaction that the organisation's plan and objectives have been enabled.

The New Facilities Management System Standard (NFMSS, 2017: 11) states that the principles through which the organisation applies facilities management to achieve its organisational objectives should be set out in a facilities management policy (FMP). The approach to implementing these principles should be documented in the strategic facilities management plan (SFMP) or FMP. The SFMP should document the relationship between the organisational objectives and facilities management objectives and should define the framework required to achieve the facilities management objectives.

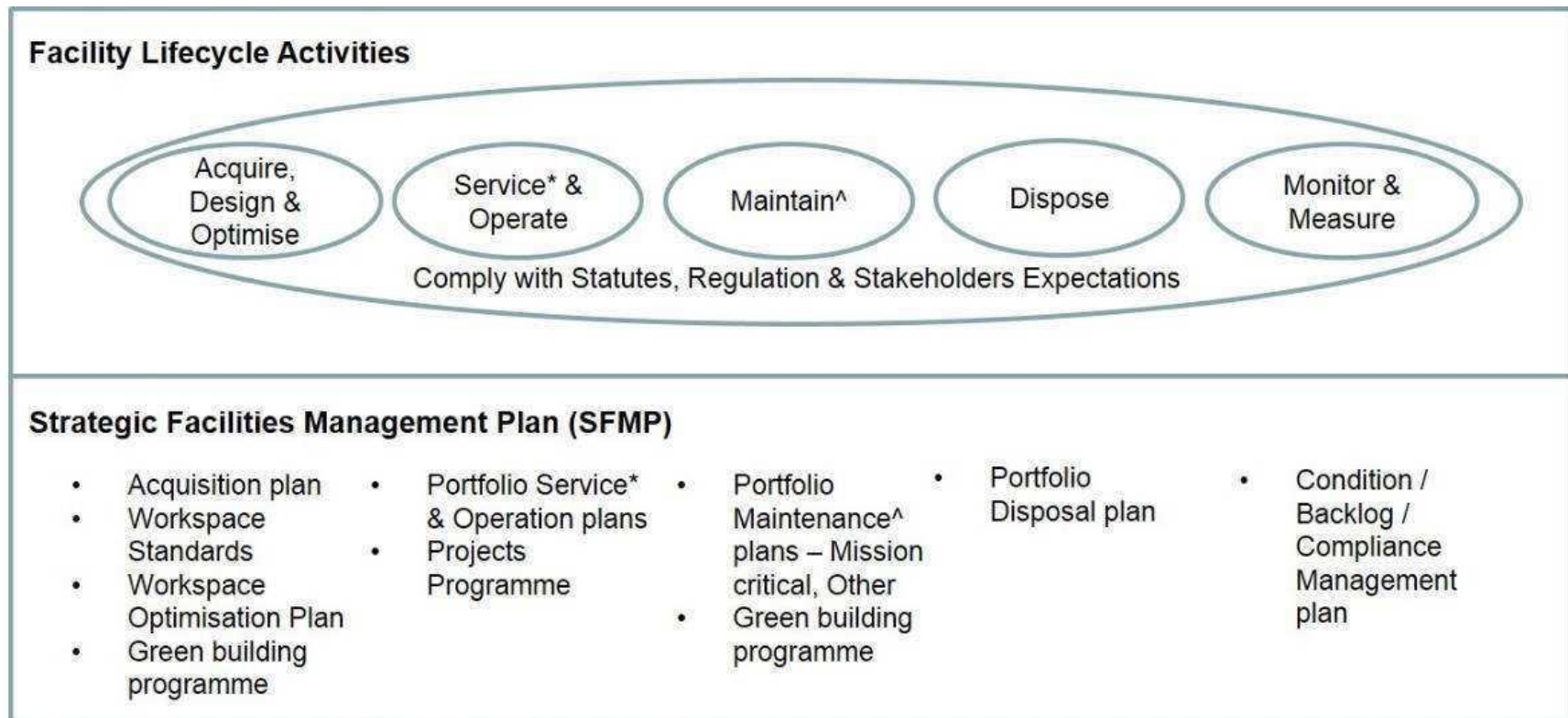


Source: International Facility Management Association (IFMA), 2009.

Figure 2.3: Strategic FM Roadmap & Outputs

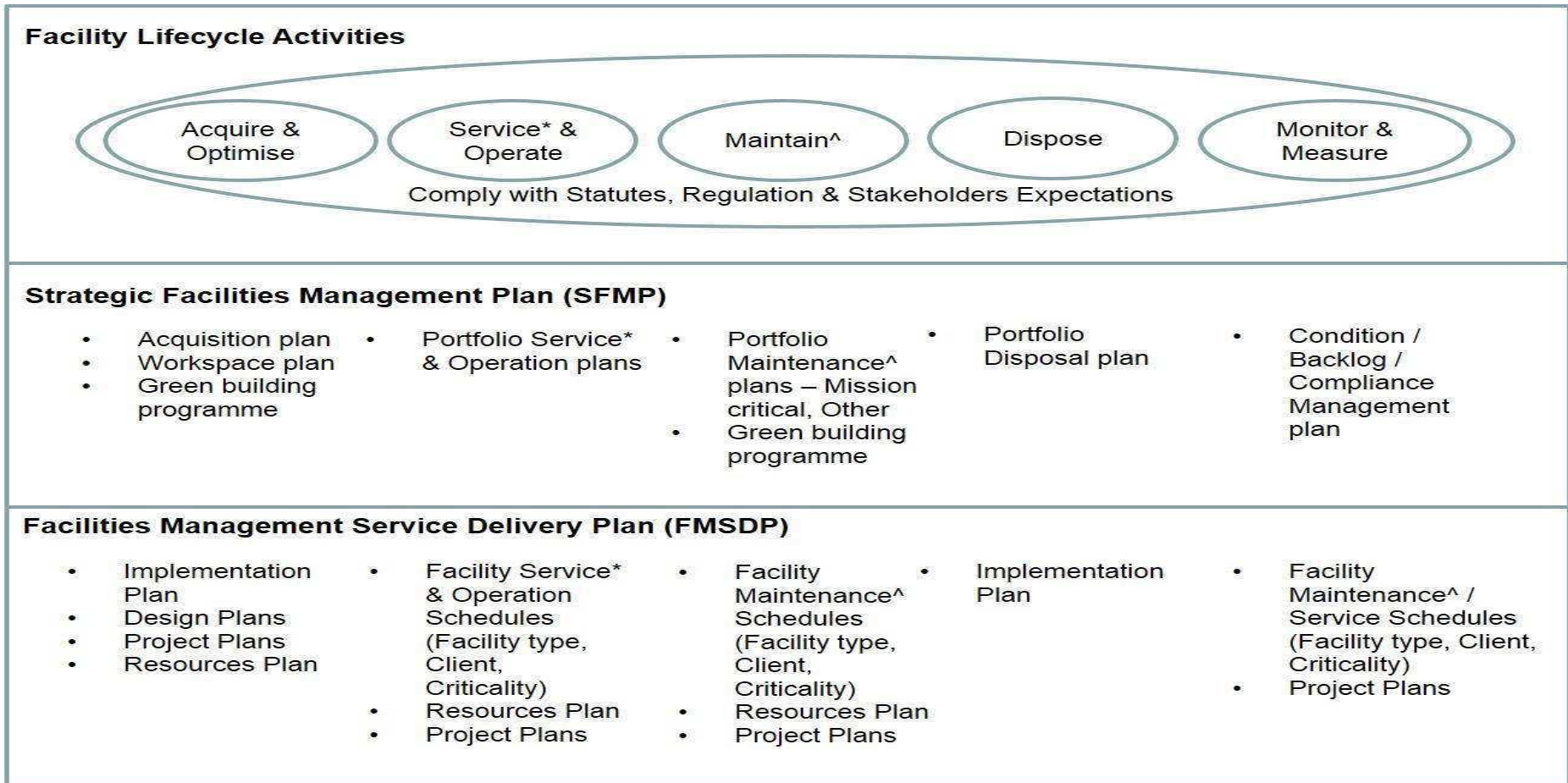
2.3.3.9.2 The Strategic Facilities Management Plan

The New Facilities Management System Standard (NFMSS, 2016) states that the contribution and role of the facilities management function of the organisation must be documented in advance in the form of the Strategic Facilities Management Plan (SFMP). The plan must be comprehensive in that it must be based on various facilities' life cycles and thus provide guidance for various functional activities and /or plans. The SFMP comprises the acquisition plan, workspace standards, workspace optimisation plan, the green building programme, portfolio service and operation plans, the projects programme, the mission-critical portfolio maintenance plans, other green building programmes, the portfolio disposal plan and the condition / backlog compliance management plan, as depicted in Figure 2.4.



Source: Asset and Facility Management Implementation Manual, 2011.

Figure 2.4: Strategic Facilities Management Plan (SFMP)



* Soft, workplace, project, guarding, ambassadorial, helpdesk and other business support services

^ Maintenance includes technical services electrical, hvac, vertical transport, fire and non-technical, architectural, civil, structural and wet services

Note: Stakeholder Relationship Management cuts across all plans and sub plans

Source: Pheng, (2009).

Figure 2.5: SFMP & FMSDP

2.4 MANAGEMENT OF IMMOVABLE ASSETS

2.4.1 Immovable Assets

The Facilities Management Policy (NDPW, 2012:3) defines an immovable asset as one that is immovable, such as land and any immovable improvement on that land that has enduring value and comprises assets of residential, non-residential or infrastructure nature as well as machinery and equipment that has been installed and is an integral part of an immovable asset and includes both state-owned and leased assets, as follows: land, including but not limited to, developed, under-developed, vacant, cultivated and non-useable or inaccessible land; buildings, including but not limited to office accommodation, prison buildings, police stations, courts, schools, hospitals and houses; infrastructure, including but not limited to roads, harbours, railway lines, airports, transmission / distribution lines, plants, dams and pipe lines; machinery and equipment, including but not limited to pump stations, machinery and irrigation systems for as far as such machinery and equipment is construed as being immovable in terms of the common law applicable to property and conservation, cultural and heritage assets, including but not limited to monuments, historical sites, heritage sites, conservation areas and sites of scientific significance (NDPW, 2012).

Alexander (1996) maintains that attitudes towards facilities must be towards their management, either as a business service or as a company asset (Vabaza, 2011:9). They must be developed as corporate assets to add value to core business activities and managed to offer service quality in support of business operations. For the operation of a facility, organisations require the effective management of customers, assets and levels of service. Facilities represent considerable value as the fixed assets of organizations. The physical assets of an organisation need to be managed effectively and efficiently to ensure that their value is realised and their repair, maintenance and replacement is planned (Alexander, 2009).

Burns (1992) maintains that the term asset is often used to refer to the investment management of collective investments, whilst the more generic fund management may refer to forms of institutional investment as well as investment management for private investors (Vabaza, 2011:3). Asset management incorporates the development, implementation and monitoring of strategic and business plans for each property in a portfolio and the development and implementation of a policy to fund long-term preventative maintenance and capital replacement expenditure (Brochner, 2008).

2.4.2 Asset Management

Prichard (1995) defines asset management as a process of creating a register of assets recording details of planned work, scheduling of work to be performed and recording details of work done in order to create a financial and technical history of assets. Chotipanich and Nutt (2010) hold that asset management focuses on strategic issues of optimising returns on investments.

2.4.3 Asset Strategy

The Local Government Capital Asset Management Guideline (LGCAMG) states that a municipality should adopt an integrated approach to asset management by: converting the municipal strategy into an asset management strategy and producing plans based upon an analysis of service delivery options; formulating an asset management strategy consisting of detailed plans for acquisitions and replacement, operation and maintenance as well as disposals in terms of the municipality's policies; informing the IDP and then the annual budget using these detailed plans; funding each approved asset management plan appropriately; including the measurable objectives and targets of each asset management plan in the service delivery and budget implementation (SDBIP) and reporting on the performance of assets as measured in terms of service delivery based upon an approved SDIBIP, budget and IDP.

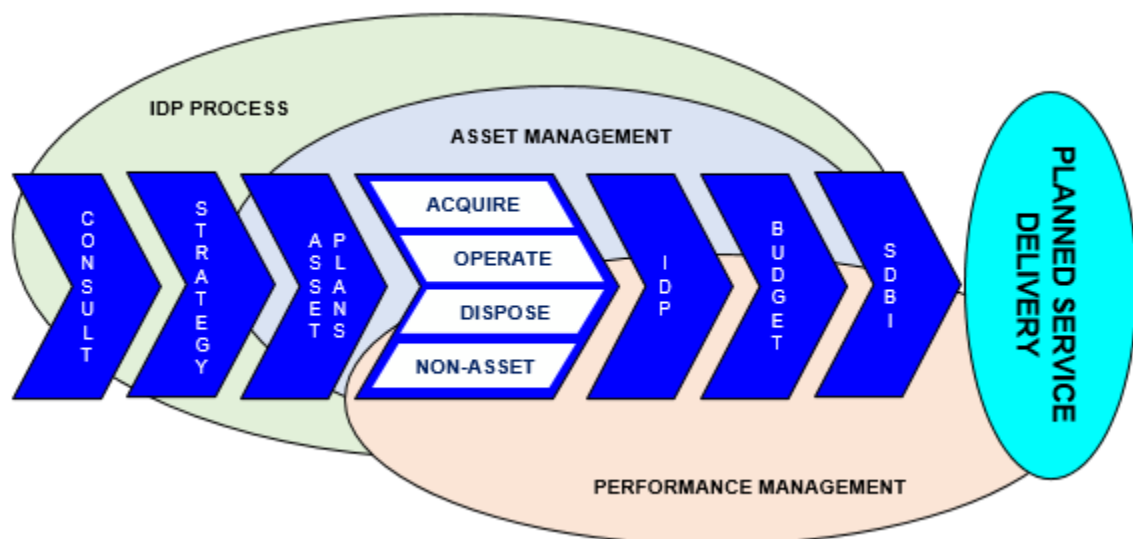


Figure 2.1: Asset Strategy

2.4.4 Asset Life Cycle

The Local Government Capital Asset Management Guideline (LGCAMG, 28) stipulates that an asset's life cycle covers all phases of that asset's life, beginning with planning, through its

acquisition, operation, maintenance and eventual disposal. Management of these phases should be integrated with the municipality's planning, budgeting, monitoring and reporting processes. The planning phase encompasses the planning for service delivery that drives the need for an asset that includes inputs into the IDP, the budget and asset management plans while the acquisition phase deals with the purchase, construction or manufacture of new assets (LGCAMG, 28). The operation and maintenance phase deals with the operation of assets, the maintenance or refurbishment, enhancement, depreciation and impairment while the disposal phase deals with the timing of the disposal of the assets and the cost thereof (LGCAMG, 28).

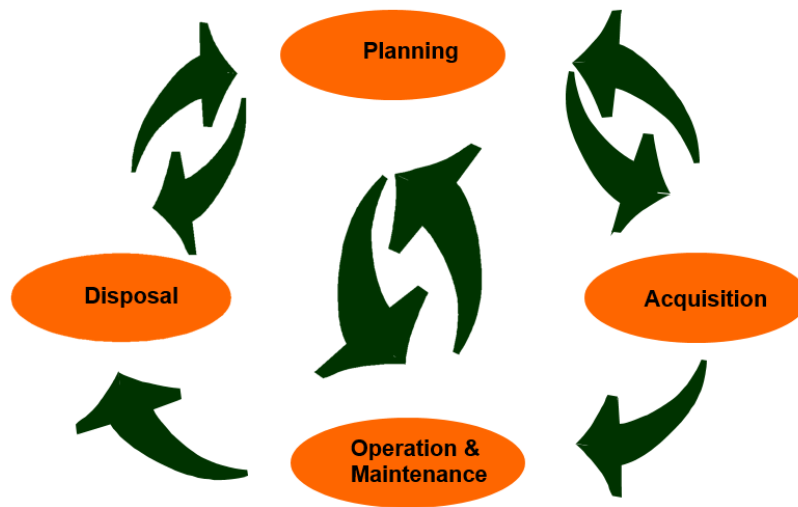


Figure 2.2: Asset Life Cycle

Assets controlled by agencies should be managed within a framework driven by service delivery needs and strategies and integrated into the strategic planning process (Nielsen, Jensen & Jensen, 2012). Proposals for the acquisition, maintenance and disposal of assets must be supported by service delivery needs and strategies and be integrated into a structured resource management process (Buys, 1992). As the first phase in the asset life cycle, an asset-planning strategy is fundamental for the effective management and delivery of agency services. By matching asset requirements to service delivery strategies, agencies should develop an asset portfolio with the necessary capacity and performance to fully satisfy service delivery requirements (Myeda, Kamaruzzaman & Pitt, 2011). Strategic asset planning involves the assessment of existing assets and planned acquisitions in line with service delivery requirements. Proposals for new assets must be justified by a thorough evaluation of all service delivery options and subjected to a comprehensive project initiation process (Buys, 1992).

2.4.5 Municipal infrastructure and service delivery

The National Infrastructure Maintenance Strategy (2006) states that municipalities are typically responsible for water services, including sanitation, roads and storm water, solid waste collection and disposal. And in many but not all cases, the distribution of electricity. They are also responsible for an array of public facilities and amenities, including sports fields, community halls and libraries. They may also be responsible for low-income housing.

The Council for Scientific and Industrial Research (CSIR) estimated that the current replacement cost of all municipal engineering infrastructure and buildings, excluding housing, is at least R300 billion. Given the poor state of much of the existing infrastructure and the repair and refurbishment consequently required, in addition to planned maintenance, international norms suggest that approximately 4% of the replacement value should, on average, be spent per annum on maintenance, excluding disposal and replacement. This amounts to approximately R12 billion per annum. However, municipalities are on average budgeting for less than half of this amount.

There are no formal, broad-based audits concerning the state of municipal infrastructure. Particularly lacking is any overview of trends in the condition and performance of local government infrastructure and its maintenance. Research undertaken by the Construction Industry Development Board (CIDB) and CSIR reveals substantial shortfalls in numerous municipalities' maintenance policies and practices. The sustained provision of services, by a significant proportion, is under threat. Specifically, numerous municipalities are not conforming to the Municipal Finance Management Act (MFMA), the Municipal Systems Act and other legislation to ensure that adequate provision is made for long-term maintenance of infrastructure assets.

While many aspects of infrastructure maintenance are implemented to a high standard in a limited number of municipalities, there are significant shortfalls in maintenance policies and practices in a number of other municipalities. The sustained provision of services by a significant proportion of the municipal infrastructure is under threat. Generally, municipalities in, or close to, the larger urban centres cope better than those that are mostly rural in nature but there are exceptions.

Of concern at a municipal level is the state of wastewater treatment, water treatment and water and sewer reticulation, on site sanitation, electricity reticulation and arterial roads. These are

the fundamental building blocks for economic growth and healthy communities. Of greatest concern is the state of wastewater treatment. The two principal causes of the on-going failure of numerous municipalities to recover maintenance backlogs, run a preventative maintenance programme and deliver a reliable and sustainable service are firstly an inadequate budget and insufficient revenue. These municipalities are either in a distressed financial state and thus unable to fund infrastructure maintenance or infrastructure maintenance is not prioritised in the planning and budgeting process. Secondly, inadequate skills, especially technical skills and experience to plan and implement appropriate maintenance programmes.

The unintended consequence of constructing new infrastructure without addressing the maintenance needs of existing infrastructure is a further widening of the backlogs in infrastructure maintenance. Generally, the poorest municipalities have, disproportionate to their ability to look after it, acquired the most new infrastructure. They have the least resources to adequately maintain both new and existing infrastructure and need focused assistance. The National Development Plan, 2030 states that infrastructure is not just essential for faster economic growth and higher employment. It also promotes inclusive growth and provides citizens with the means to improve their own lives and boost their incomes. Infrastructure is essential for development.

Investment spending in South Africa fell from an average of almost 30% of the Gross Domestic Product (GDP) in the early 1980s to about 16% of the GDP by the early 2000s. Public infrastructure spending is also at low levels by historical standards. In effect, South Africa has missed a generation of capital investment in roads, rail, ports, electricity, water, sanitation, public transport and housing. To grow faster and in a more inclusive manner, the country needs a higher level of capital spending. Gross fixed capital formation needs to reach about 30% of the GDP by 2030 with public sector investment reaching 10% of the GDP to realise a sustained impact on growth and household services.

For infrastructure that supports human settlements, (housing, water, sanitation, roads, parks and so on), the setup is unnecessarily complicated. The planning function is located at the local level of government, the housing function is at provincial level and the responsibility for water and electricity provision is split between those responsible for bulk services and reticulation. In practice, these arrangements do not work. In general, human settlements are badly planned, with little coordination between those installing water reticulation infrastructure and those

responsible for providing bulk infrastructure. Responsibility for housing should shift to the level at which planning is executed, which is at municipal level.

Local government faces several related challenges, including poor capacity, weak administrative systems and undue political interference in technical and administrative decision-making and unreliable fiscal capacity.

2.5 MODELS OF FACILITIES MANAGEMENT

Barett and Baldry (2003:4) hold that most FM sections or departments generally fall into one of five categories which are office manager, single site, localised site, multiple sites and international (Tonono, 2008: 11).

2.5.1 The Office Manager Model

In this model, there is no distinct FM function within the organisation, as it becomes one of the duties of the office manager (Myeda et al., 2012). The reason for this is that sometimes the organisation is located in one building, which does not warrant a separate facilities manager. This model results in FM related activities being reactive rather than proactive. This is seen mostly in government departments and it is difficult to structure and coordinate FM in those environments.

2.5.2 Single Site Model

This model refers to organisations that are large enough to have a separate FM section or department, sometimes located at one site (Musa & Pitt, 2009). This usually occurs when organisations own the buildings that they occupy. They are prepared to spend more time and money on FM than the office manager model. FM is specialised in the sense that a separate department or section is solely responsible for these activities.

2.5.3 Localised Site Model

This model is applicable to organisations that have buildings on more than one site within the same metropolitan area (Tonono, 2008). The most prevalent examples are universities that have headquarters with campuses located nearby on several sites. It can also apply to an organization that has buildings in multiple sites of the country.

2.5.4 Multiple Site Model

This model is applicable to organisations that operate in separate geographical areas or regions, most likely nationally (Tonono, 2008). These organisations operate on the principle of each having headquarters that are primarily concerned with policy and providing guidance to their regional offices. They also provide or allocate resources, planning and other macro business administration services.

2.5.5 International Model

This model is almost the same as the model described above but it applies to large international rather than national organizations (Lawson, 2009). It is important to note that facilities management affects all types of organisations, be they small or large.

These models form the basis of the evolution of facilities management and its efficiencies. The models paint a picture of the way in which each organisation supposedly aligns its FM organisations.

2.6 CONCLUSION

It is estimated that the current replacement cost of all municipal engineering infrastructure and buildings, (excluding housing), is at least R300 billion. Given the poor state of much of this infrastructure and the repair and refurbishment required in addition to planned maintenance, international norms require that 4% of the replacement value should, on average, be spent per annum on maintenance (excluding disposal and replacement), amounting to about R12 billion per annum. However, municipalities are generally either budgeting less than half of this amount or there is no budget at all for maintenance and as a result municipal buildings and infrastructure are in a state of decay. There are no formal broad-based audits of municipal infrastructure. There are no maintenance policies and facilities management plans or strategies in municipalities and in the few instances that there is a plan, it is not implemented. This failure on the part of municipalities is caused by inadequate revenue and budget and inadequate technical skills and experience to plan and implement appropriate maintenance programmes.

The challenge is to reduce the life cycle cost of buildings to increase their profitability in line with the stakeholders' expectations. It is the responsibility of facilities managers to come up with strategies that will improve the performance of buildings and their related services. The New Facilities Management System Standard (NFMSS, 2015:9) states that, as a consequence

of being a developing economy, the FM industry is generally viewed as being at wave 2 of development in terms of the evolution of FM models, as indicated in Figures 2.6 and Figure 2.6 explains the various waves and associated delivery models.

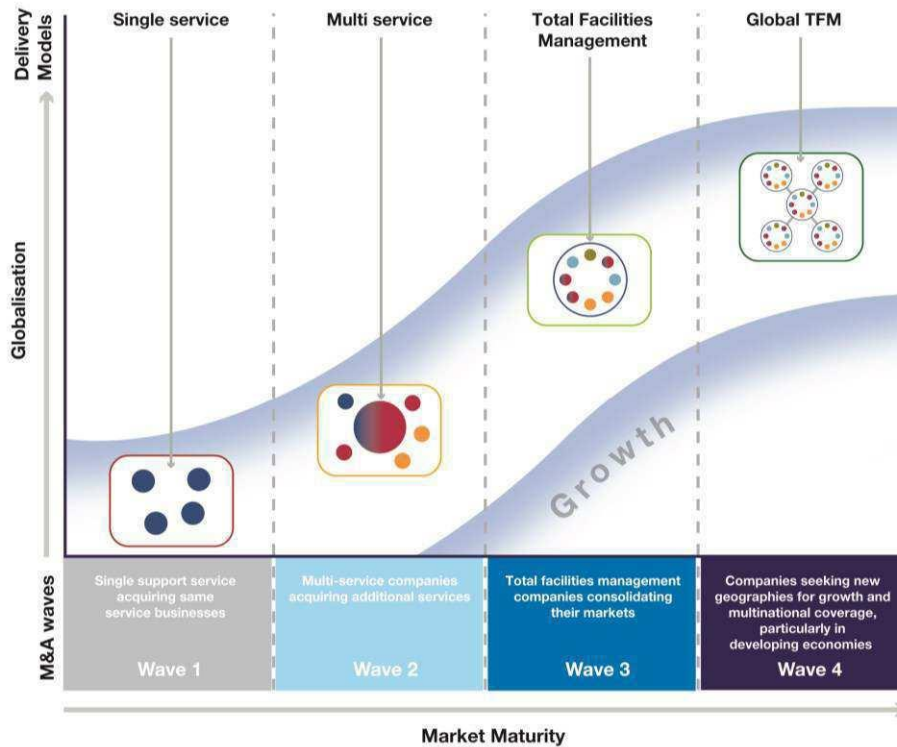


Figure 2.6: Catalyst Corporate Finance: Facilities Management - Global M&A Overview, The impact of M&A on the evolution of FM models, 2013

The Catalyst Corporate Finance Global M&A Overview, 2013 presents a snapshot of where the industry was placed in the evolution of the FM models, as depicted in Figure 2.6.

The SFMS is one of the initiatives to raise the FM bar and position the industry for the future. Figure 2.6 illustrates that the FM industry in South Africa is still mushrooming from the basement, hence the introduction of the SFMS in South Africa. This is as a result of a lack of skills. It has not reached wave 4 in terms of Figure 2.6.

CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

3.1 INTRODUCTION

This chapter presents the research methodology used to acquire the data pertaining to the implementation of the facilities management strategy within the Amathole District Municipality (ADM) in an attempt to address the problems within the district. This chapter also presents the philosophy and paradigm for this research. The gathering or collection and analysis of the data is explained. The research methodology, data collection procedure, quantitative research, questionnaire design, sample size and the administration of the questionnaire are all discussed in this section. Sekaran and Bougie (2013) defines research as a structured enquiry that utilises acceptable scientific methodology to solve problems and create new knowledge that is generally applicable. Scientific methods consist of systematic observation, classification and interpretation of data. Research is a process of collecting, analysing and interpreting information to answer questions.

Gray (2014) explains that there are two broad categories of research, namely pure research and applied research. Pure research involves developing and testing theories and hypotheses that are intellectually challenging to the researcher but may or may not have practical applications at present or in the future. Babbie (2013) explains applied research as research that is conducted to solve specific problems, answer practical questions, for policy formulation, administration and understanding of a phenomenon. It can be exploratory but is usually descriptive. It is almost always achieved through basic research. This research can be carried out by academics or industrial institutions. May (2011) defines applied research as studies designed to apply their findings to solve a specific, existing problem.

Saunders, Lewis and Thornhill (2012) hold that applied research can inform human decision-making with regard to practical problems. In this study, the principles of applied research were adopted as it was envisaged that the study was an attempt to solve an existing problem at the Amathole District Municipality. This study was conducted in an attempt to resolve a management problem, which implies that it required principles of management research. McNabb (2011) defines management research as the application of information that has been gathered and analysed as part of the resolution for a given problem or question.

3.2 RESEARCH DESIGN AND METHODOLOGY

Cooper and Schindler (2013) hold that a research design serves to plan, structure and execute the research to maximise the validity of the findings. It gives direction from the underlying philosophical assumptions through to research design and data collection. Research design can be thought of as the logic or master plan of research that sheds light on the way in which the study is to be conducted. It shows how all of the major parts of the research study, the samples or groups, measures, treatments or programmes work together in an attempt to address the research questions. Research design is similar to an architectural outline. Yin (2009) holds that colloquially, a research design is an action plan for getting from here to there, where “here” may be defined as the initial set of questions to be answered and “there” is a set of conclusions or answers. The methodology used in this study was based on the logic for theory-based empirical research. In this study, a mixed method research methodology was considered to be the most appropriate method to be used. The methodology combined both quantitative and qualitative methods in the collection, organisation and analysis of collected data. In this study a questionnaire which is a quantitative tool as well interview questions which are a qualitative tool were used to obtain data from the participants. The data was statistically analysed through quantitative methods as well as an in-depth thematic analysis of data obtained from interview questions thus justifying the use of the mixed methodology.

3.3 DATA COLLECTION PROCEDURE

The methodology used in this study was based on the logic for theory-based empirical research. Mixed research methodology was considered as the most appropriate method to be used. Pilot questions were distributed to all relevant managers within the Amathole District Municipality and primary data were gathered from Directors, HOD’s, general managers, senior managers, unit managers and assistant managers with a view to ascertaining their level of understanding of the importance of facilities management within the Amathole District Municipality. The secondary data used in this study was obtained through a study of relevant publications from various sources, such as reports, books, the internet and articles.

3.4 QUESTIONNAIRE DESIGN

The questionnaire was designed utilising a Likert scale with strongly disagree, agree, disagree, strongly agree, neutral as well as never, seldom, sometimes, often and always. Cresswell (2012) explains a Likert scale as a type of composite measure developed by Rensis Likert in

an attempt to improve the levels of measurement in social research through the use of standardised categories in survey questionnaires. Likert items are those using such responses as strongly agree, agree and disagree. Such items may be used in the construction of true Likert scales as well as other types of composite measures.

The questionnaire technique was chosen as it allowed the respondents independent thinking when answering the questions. This assisted the researcher to find solutions to the problem. The questionnaire was tested by administering it to five officials within the Amathole District Municipality for validation. These officials had followed the same approach when fulfilling their studies with the Nelson Mandela Metropolitan University. On completion, the questionnaire was presented to the researcher's supervisor for comment. The literature review contributed to the design of the questionnaire. Information from journals, the internet, publications and research study sources from libraries played a crucial role in the design of the questionnaire. The Nelson Mandela Metropolitan University and the University of Fort Hare libraries played a major role in the fulfilment of this study from the beginning to the end, as reading material was accessed throughout the study.

The questionnaire was designed to gather information on the subjects listed below.

Biographical information of the respondents: SECTION A.

Perceptions of the respondents with regard to facilities management: SECTION B.

Other perceptions with regard to facilities management: SECTION C.

Semi-structured questions were used in developing the interview guide. Both questionnaire items and interview questions were combined to make the research instrument. Once the instrument had been developed, it was distributed to all relevant research groups within the ADM for completion, including the senior managers in satellite offices.

3.5 TARGET POPULATION

A target population is defined as the total number of all elements or individuals from whom the researcher seeks to obtain information (Hair, Lukas & Miller, 2012). It is the total number of all objects, elements or individuals who share the characteristics that are the main focus of scientific enquiry (Neuman, 2014). In this study, the target population consisted of all

managers at the Amathole District Municipality with the aim of ascertaining their level of understanding of the importance of facilities management.

3.6 SAMPLING PROCEDURE

A researcher adopts either a probability or non-probability sampling procedure when conducting research. Probability sampling, often referred to as random sampling, implies that all sample elements have a probability of being included in the sample (Quinlan, 2011). Elements selected through non-probability sampling do not have an equal chance or probability of being included in the sample (Stangor, 2011). The procedure for this study was non-random as the inclusion of participants for the study was unknown.

3.7 SAMPLING TECHNIQUE

The method used to select sample elements is known as a sampling technique (Younus, 2014). Qualitative research adopts techniques such as convenience, judgemental and snowball sampling (McLeod, 2014). Quantitative research uses random sampling techniques such as simple random sampling, systematic sampling and stratified sampling. In this study, stratified or cluster sampling was used. The study population was divided into clusters and from those clusters the sample elements or participants who chose to participate in the study were selected. The clusters were categorised as senior managers, unit managers and assistant managers.

3.8 SAMPLE SIZE

The target population initially comprised managers at Amathole District Municipality but the researcher considered that top level managers would not have the time to complete the questionnaires due to their tight work schedule and decided that the questionnaire would not be distributed to heads of departments or general managers. The questionnaire was distributed to relevant senior managers, (inclusive of the 7 in satellite offices), unit managers and assistant managers as well as other officials that deal with facilities management in their respective departments. These senior and middle managers are fully involved in activities involving the facilities, hence their inclusion in the target group. They form the core in the determination of the policies and the implementation thereof in the organisation. They are known as Divisional Heads. They are the drivers of facilities management in their respective departments and include

the area managers in satellite offices and assistant managers in head office. Unit managers are the heads of the units that deal with facilities and asset management.

It was assumed that the targeted population would provide good insight into the completion of the questionnaire as they know what facilities and asset management is all about within the ADM. The sample distribution was as follows: senior managers (4); unit managers (5); assistant managers (7) and others (12).

3.9 RESEARCH INSTRUMENT

A research instrument is defined as a tool or technique used to obtain information from research participants or respondents (Simon, 2011). Various research instruments can be used for a study. Qualitative researchers make use of instruments such as interviews, focus groups, documents and observation while quantitative researchers utilise questionnaires as the main research instrument (McLeod, 2014). The study was a mixed method research therefore both a quantitative and a qualitative data collection instrument therefore had to be employed. For the purpose of this study, data was collected using a questionnaire and interview guide as the research instrument. The instrument had questionnaire items as well semi-structured interview questions.

3.10 ADMINISTRATION OF THE INSTRUMENT

Permission to carry out the research within the Amathole District Municipality was granted in writing by the accounting officer (municipal manager). The instrument was distributed to the targeted group of officials electronically via e-mail. A number of the officials requested a hard copy and that was delivered to them by hand. This method was found to be economical and convenient and saved time. No problems were encountered with distribution, as the officials all had access to e-mail in their offices. Electronic mail messages reminding the officials were sent and they were also visited and asked to complete the instrument. Some of them did not complete the instrument. Only 28 respondents returned the completed instrument. It was decided to proceed with those returned due to time constraints.

3.11 DATA ANALYSIS

Twenty eight questionnaires were captured for analysis. The questionnaires were coded in a spreadsheet for ease of data capturing by the statistics department. Quantitative statistical

analysis was performed. Quantitative analysis is the numerical representation and manipulation of observations for the purpose of describing and explaining the phenomena that those observations reflect. (Cresswell, 2012). Neuman (2014) holds that the three characteristic features of a quantitative research paradigm or approach are firstly, emphasis on the quantification of constructs. The quantitative researcher believes that the best or only way to measure the properties of phenomena is through the attitudes of individuals towards certain topics and assigning numbers to the perceived qualities. Secondly, the emphasis placed on variables in describing and analysing human behaviour is known as variable analysis. Thirdly, the central role afforded to control sources of error in the research process. The nature of the control is through experimental or statistical controls or multivariate analyses. The statistical package for social sciences (SPSS) was used to analyse the research data. Descriptive and inferential statistical analyses were conducted. To describe the demographic and occupational information of the respondents, descriptive data analysis was used. Graphs, tables and figures were utilised to aid the analysis. Inferential statistics was used to make inferences about the sample results and generalise to the target population. Thematic analysis was used to analyse the data obtained from the semi structured interview questions.

3.12 VALIDITY AND RELIABILITY

When determining the quality of a study, the validity and the reliability are examined. Validity implies that a study measures what it is intended to measure while reliability refers to a study yielding the same results when conducted over time under similar or the same conditions (Sarantakos, 2012). To ensure reliability, the Cronbach's alpha coefficient was calculated and presented in the data analysis section. The validity of the instrument was ensured through adapting the research instruments to what other researchers have said or written about similar studies.

3.13 LIMITATIONS OF THE STUDY

Factors that impact or influence the conclusions of a study are known as limitations (Simon, 2011). In research, limitations are often associated with the research design and the methodology adopted. In this study, one major drawback was that the study was conducted at one Municipality. Using various municipalities could have enabled triangulation of the study's results. The limitation was that generalising the results across all other employees in other

municipalities is not possible. The study was conducted using employees at only one municipality, thus making generalisability of the study's findings problematic.

3.14 ETHICAL CONSIDERATIONS

While conducting this study the researcher adhered to various ethical principles. These ethical considerations guided the researcher's behaviour, as the emphasis was on treating participants as human beings and not subjecting them to any form of harm. These ethical principles and the manner in which the researcher went about protecting the participants' are outlined in the discussion below.

3.14.1 Permission to Conduct the Study

The researcher had to obtain clearance from the municipality to conduct the study on ADM premises using municipal staff as participants. The researcher also had to request approval from the college ethics committee..

3.14.2 Informed Consent and Voluntary Participation

Research participants have to be given the autonomy to decide whether to take part in a study or not. No participant should feel coerced into taking part in a study. To obtain the participants' consent to take part in the study, the researcher provided them with all the relevant information about the study. The researcher explained the objectives and significance of the study, the way in which the study would be conducted and the benefits that would arise from the findings. The information provided to the participants allowed them to make an informed decision whether or not to take part in the study. The participants were also notified of their right to withdraw at any time. Consent to participate in the study was obtained through the participants voluntarily signing the consent form indicating their willingness to participate in the study.

3.14.3 Confidentiality and Anonymity

It was the researcher's responsibility to ensure that the participants trusted that their personal information would remain confidential. To ensure this trust, the researcher notified the participants that any identifying information would not be revealed when reporting the study's findings. No names or other personal information was requested by the researcher. The information obtained from the participants was kept in a secure place to which only authorised people had access. Other people did have access to the study's data that are interpreted in the

next chapter but the questionnaires were shredded after the data analysis and interpretation of the information.

3.15 CONCLUSION

This chapter presented the research methods used while conducting this study. A quantitative research methodology was adopted, which led to the researcher using a questionnaire as the research instrument. Data were analysed through descriptive and inferential analyses. The way in which validity and reliability was ensured in this study and the ethical principles adhered to while conducting this study were also presented in this chapter.

CHAPTER 4

DATA ANALYSIS REPORT

4.1 INTRODUCTION

The previous chapter detailed the research methods that were employed to collect the relevant data. This chapter explains and presents the overall findings of this research. The researcher used descriptive statistics such as graphical tables, pie charts and bar charts to aid the analysis of the data and to clarify the results. The results of the study, in relation to the research objectives, are also presented. To clearly present and discuss the results, this chapter begins with the presentation of the demographic and occupational distribution of the participants and links that information with the issues in question. The following sections examine the analysis and interpretation of the data obtained from the respondents by means of the questionnaire.

4.2 RESPONSE RATE

As indicated, the data gathering instrument was a self-administered questionnaire. In total, twenty eight (28) responses were received from the 50 questionnaires that were distributed.

4.3 DEMOGRAPHICS

Prior to a detailed analysis of the data regarding a facilities management strategy, basic distributions according to age, gender, qualification, position at work, tenure, number of personnel, training in facilities management, experience and professional membership status was assessed.

4.3.1 Distribution of Respondents by Age

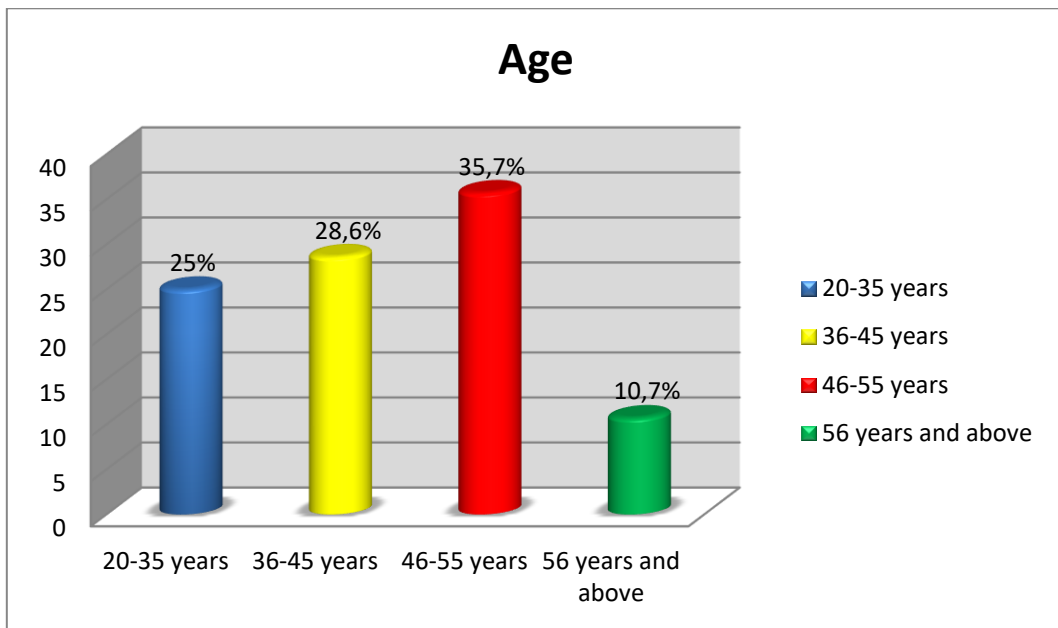


Figure 4.1: Age distribution

Figure 4.1 illustrates the distribution of respondents by age. The majority of the respondents (35.7%, $n = 10$) were in the age group of 46-55 years, while 28.6% ($n = 8$) were in the age group of 36-45 years. Seven respondents (25%) fell in the age category of 20-35 years and 10.7% ($n = 3$) of the respondents were in the age group of 56 years and older.

4.3.2 Distribution of Respondents by Gender

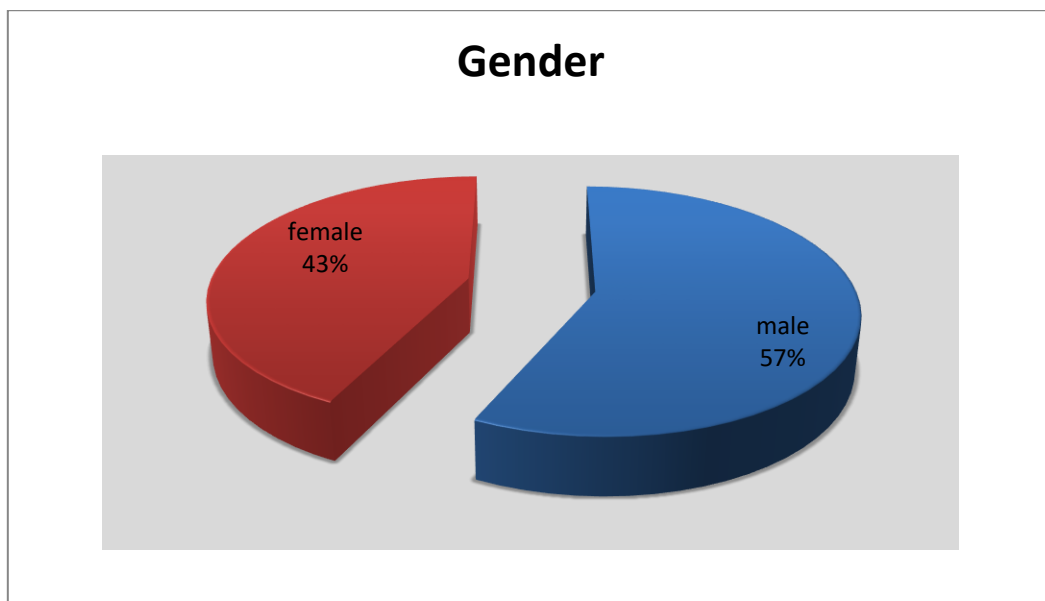


Figure 4.2: Gender distribution

Figure 4.2 above depicts the distribution by gender. It was observed from this figure that the majority of the respondents were males, who contributed 57% (n = 16) to the total, while female respondents constituted 43% (n = 12).

4.3.3 Distribution of Respondents by Highest Qualification

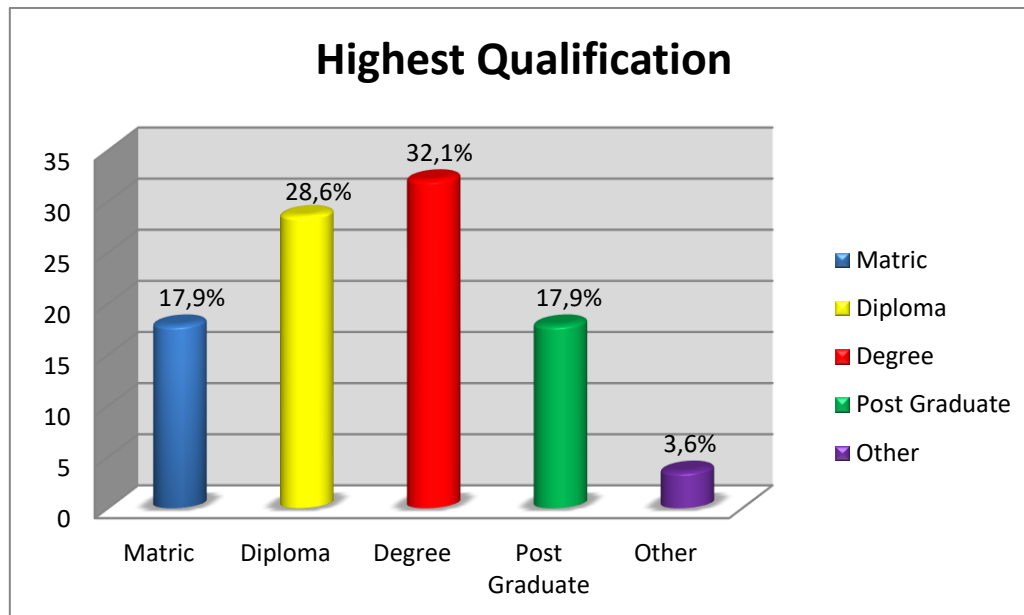


Figure 4.3: Highest qualification distribution

Figure 4.3 above indicates the distribution of respondents by highest academic qualification. From the responses received it was noted that the majority of the respondents (32.1%; n = 9) had a degree, followed by 28.6% (n = 8) who had diplomas. Respondents who had matric and post graduate qualifications each constituted 17.9% (n = 5) of the total. Only one respondent (3.6%) had another highest qualification.

4.3.4 Distribution of Respondents by Position at Work

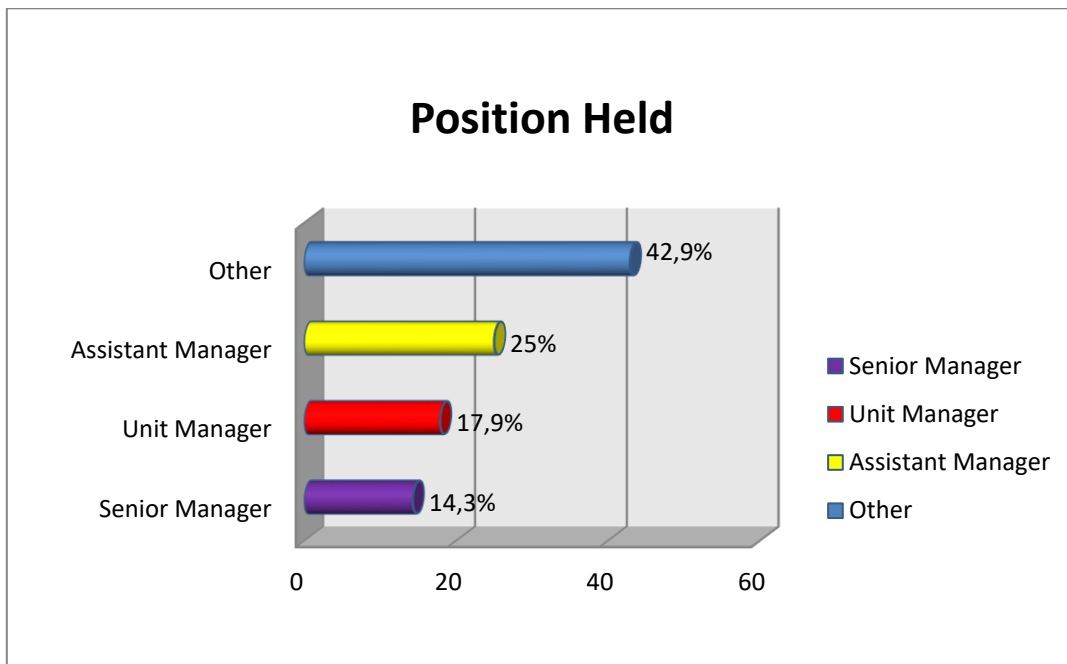


Figure 4.4: Position at work distribution

Figure 4.4 depicts the position the respondents held at work. Most of the respondents had other positions at work (42.9%; $n = 12$) while 25% ($n = 7$) were assistant managers. Five respondents (17.9%) were unit managers and four respondents (14.3%) were senior managers.

4.3.5 Distribution of respondents by number of years at ADM

Figure 4.5 illustrates the responses with regard to the number of years at the ADM. It can be said that eleven respondents (39.3%) have been working at the ADM for 1-5 years, 32.1% ($n = 9$) of the respondents have worked there for 6-9 years and 14.3% ($n = 4$) have worked there for 20 years and more. Only 3 respondents (10.7%) have worked at the ADM for 10-19 years and one respondent (3.6%) has worked at the ADM for less than a year.

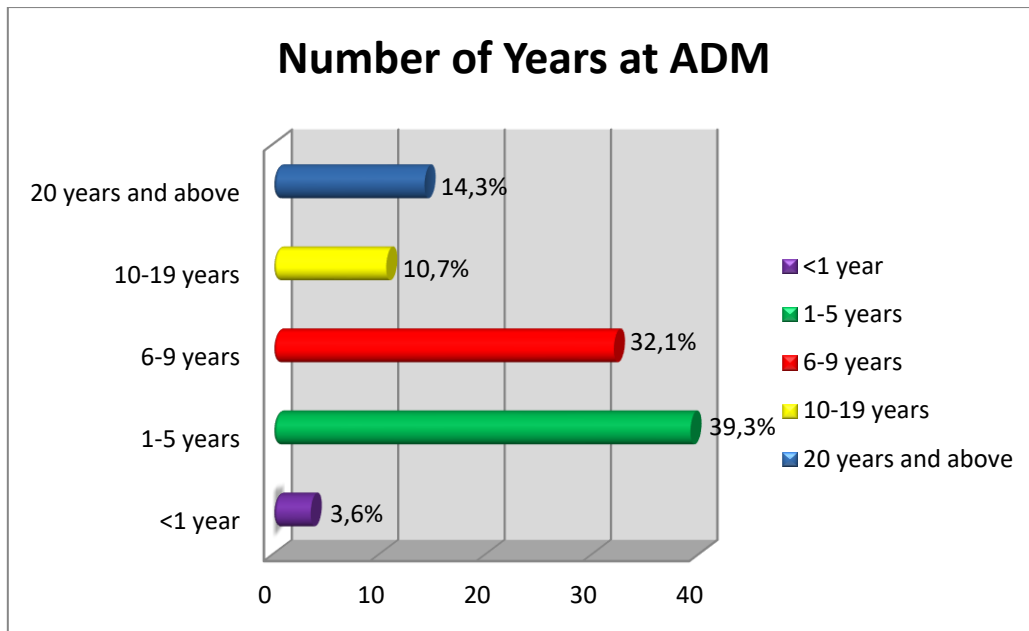


Figure 4.5: Number of years at ADM distribution

4.3.6 Distribution of Respondents by Number of Years in the Department

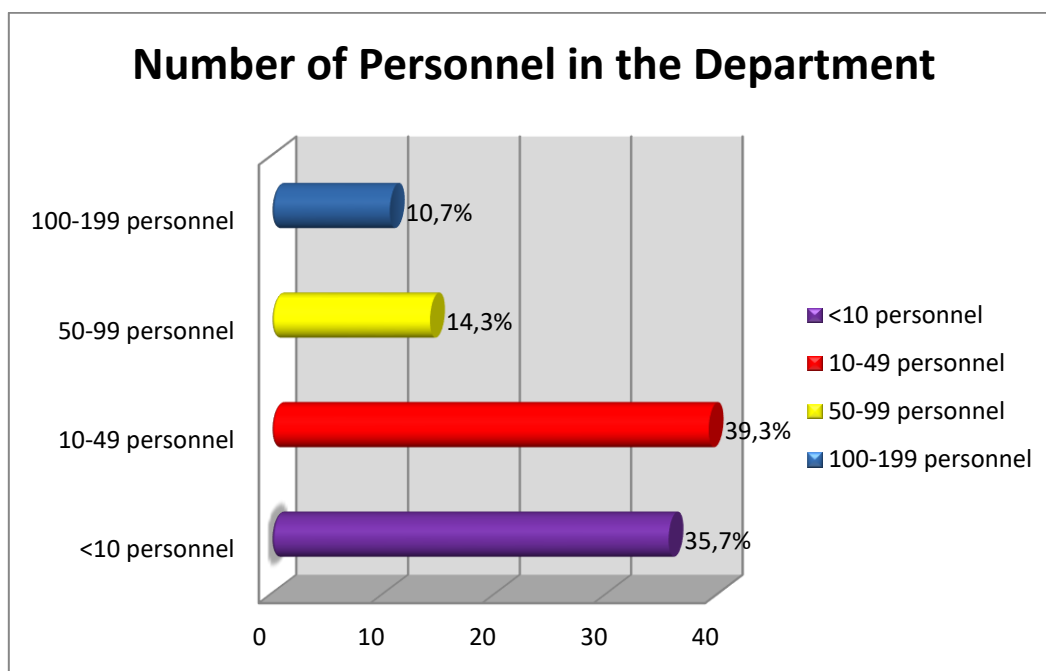


Figure 4.6: Number of personnel in the department distribution

Figure 4.6 indicates the number of personnel in the respondents' departments. The majority of the respondents (39.3%; n = 11) have 10-49 personnel in their department while 35.7% (n = 10) have fewer than 10 personnel. 14.3% (n = 4) of the respondents had 50-99 personnel and 10.7% (n = 3) had 100-199 personnel.

4.3.7 Distribution of Respondents by Training undergone in Facilities Management

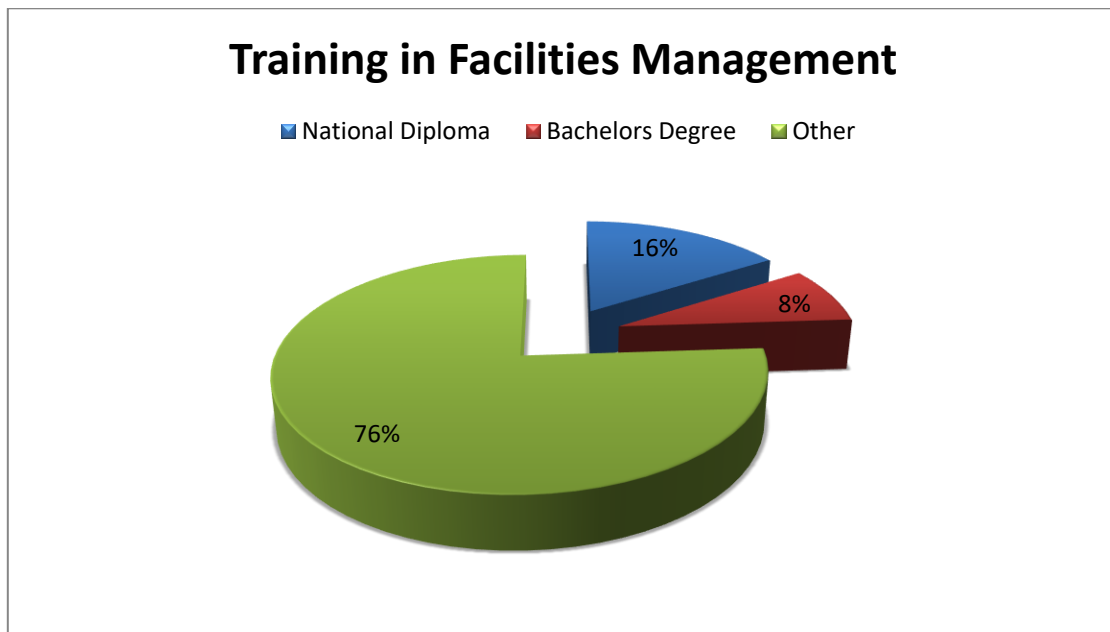


Figure 4.7: Training undergone in facilities management distribution

Figure 4.7 depicts the training undergone by respondents in facilities management. The majority of the respondents (76%; n = 19) had other qualifications and 16% (n = 4) had a Bachelor's degree in Facilities Management. Two respondents (8%) had a National Diploma in Facilities Management.

4.3.8 Distribution of Respondents by Experience in Facilities Management

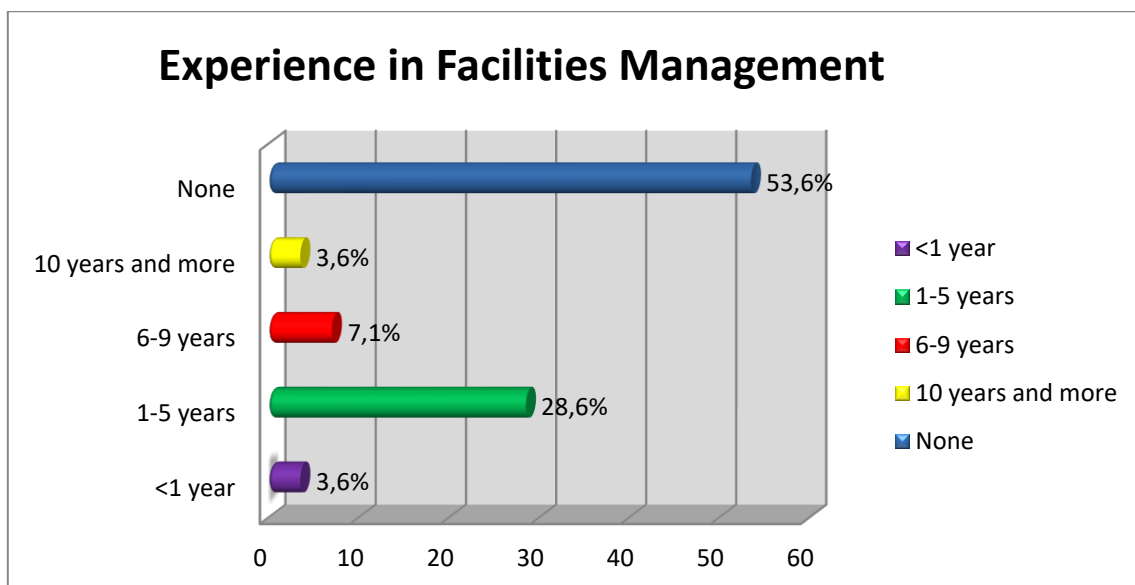


Figure 4.8: Experience in facilities management distribution

Figure 4.8 indicates the participants' experience in facilities management. The majority of the respondents (53.6%; n = 15) had no experience in facilities management while 28.6% (n = 8) had facilities management experience ranging from 1-5 years. Two respondents (7.1%) had 6-9 years' experience in facilities management. Those who had less than a year and those who had 10 years and more experience in facilities management constituted 3.6% (n = 1) respectively.

4.3.9 Distribution of Respondents by Professional Membership Status

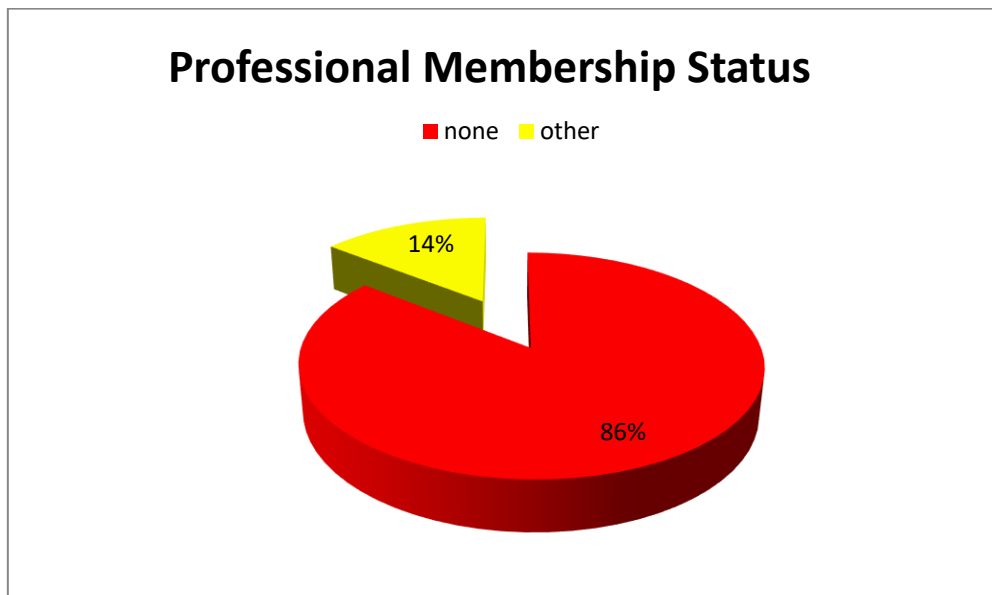


Figure 4.9: Professional membership status distribution

Figure 4.9 illustrates the professional membership status of the respondents. The majority of the respondents (86%; n = 24) did not have any professional membership. Only 4 respondents (14%) had other membership status beside SAFMA, BIFM and CIOB that was stated in the questionnaire.

4.4 PERCEPTIONS REGARDING FACILITIES MANAGEMENT

Non-parametric tests using the asymptotic chi-square tests were conducted for inference with regard to the perceptions and understanding of employees of facilities management using the constructs to which they responded in the questionnaire. The 5-point Likert scale (Strongly Agree (SA), Agree (A), Neutral (N), Disagree (D) and Strongly Disagree (SD)) was collapsed to a 3-point Likert scale by merging SA and A and SD and D. This was done for the sake of conducting a chi-square comparison of those who agreed (SA and A), those who disagreed (SD

and D) and those who neither agreed nor disagreed. The given p-values are for these comparisons.

4.4.1 General Perceptions and Understanding of Employees in Facilities

Management

It was noted in Table 4.1 that most of the respondents are of the opinion that facilities management is a profession that encompasses multiple disciplines to ensure the functionality of the built environment ($p = <0.0001$). They also perceived that facilities management encompasses the activities in planning, designing and managing complex facilities ($p = <0.0001$). On the other hand, Table 4.1 indicates that most employees are not sure if facilities management is thirty years old and the fastest growing professional discipline in the built environment ($p = 0.004$). There was a strong indication from the data gathered in the study that facilities management is the management of buildings and their related services, ($p = <0.0001$) and that it creates an environment that strongly supports the primary objectives of the organization ($p = <0.0001$). The majority of the employees disagree, ($p = <0.0001$) that facilities management is the management of only cleaning, gardening and security services.

Table 4.1: Perceptions and Understanding of Employees regarding Facilities Management

Do you agree that the following statements define and describe facilities management	SD	D	N	A	SA	p-value
It is a profession that encompasses multiple disciplines to ensure functionality of the built environment.	3.6	0	17.9	50.0	28.6	<0.0001*
It encompasses the activities in planning, designing and managing complex facilities.	3.6	3.6	10.7	60.7	21.4	<0.0001*
It is thirty years old and the fastest growing professional discipline in the built environment.	3.7	0	44.4	33.3	18.5	0.004*
In the past 30 years Facilities Managers became Asset Managers.	0	7.4	55.6	25.9	11.1	0.008*
Old philosophy of maintenance of buildings.	11.5	7.7	26.9	50.0	3.8	0.076*
Old fashioned sense of caretaking, cleaning, repairs and maintenance.	15.4	15.4	19.2	42.3	7.7	0.152*
It is the management of buildings and their related services.	0	0	3.7	63.0	33.3	<0.0001*
It creates an environment that strongly supports the primary objectives of the organization.	0	0	10.7	60.7	28.6	<0.0001*
It focuses on project management, as it deals with construction.	0	21.4	25.0	39.3	14.3	0.074*
Management of only cleaning, gardening and security services.	28.6	57.1	10.7	0	3.6	<0.0001*

N = 28, no missing data. Statistically significant differences (* $p < .05$).

4.4.2 Perceptions of Employees regarding Factors That Stimulate the Growth of Facilities Management

It is believed that various factors perform a significant role in stimulating the growth of facilities management. The research instrument used questions to explore which of the indicated factors stimulate growth in facilities management. The data indicated that high cost of space ($p = 0.008$), information technology ($p = 0.001$), employee expectations ($p = 0.004$), global competition ($p = 0.002$) and Construction Industry Development Board ($p = 0.039$) were the most widely perceived to be factors that stimulate growth in facilities management. From the study results it can be seen that participants perceive information technology, high cost of office space, employee expectation, global competition and construction industry development board stimulate the growth of facilities management.

Table 4.2: Perceptions of Employees on Factors That Stimulate the Growth of Facilities Management

To what extent do you agree that the following factors stimulate the growth of facilities management	SD	D	N	A	SA	p-value
High cost of space.	0	11.1	29.6	51.9	7.4	0.008*
Information technology.	0	3.7	33.3	55.6	7.4	0.001*
Employee expectations.	0	7.4	33.3	55.6	3.7	0.004*
Cost of mistakes.	3.6	28.6	39.3	28.6	0	0.779
Global competition.	0	7.1	32.1	46.4	14.3	0.002*
The knowledge of the Executive Management Committee (EMC).	7.1	14.3	39.3	32.1	7.1	0.409
The Noise of the Executive Mayoral Committee.	10.7	28.6	53.6	7.1	0	0.009*
The Auditor General's report.	3.6	21.4	28.6	35.7	10.7	0.331
The Construction Industry Development Board.	3.6	7.1	42.9	42.9	3.6	0.039*
The Annual Financial Statement.	0	21.4	28.6	50.0	0	0.156

N=28, no missing data. Statistically significant differences (* $p < .05$).

4.4.3 Perceptions of Employees Regarding Tools that are Utilised Vigorously in the Development of a Facilities Management Strategy

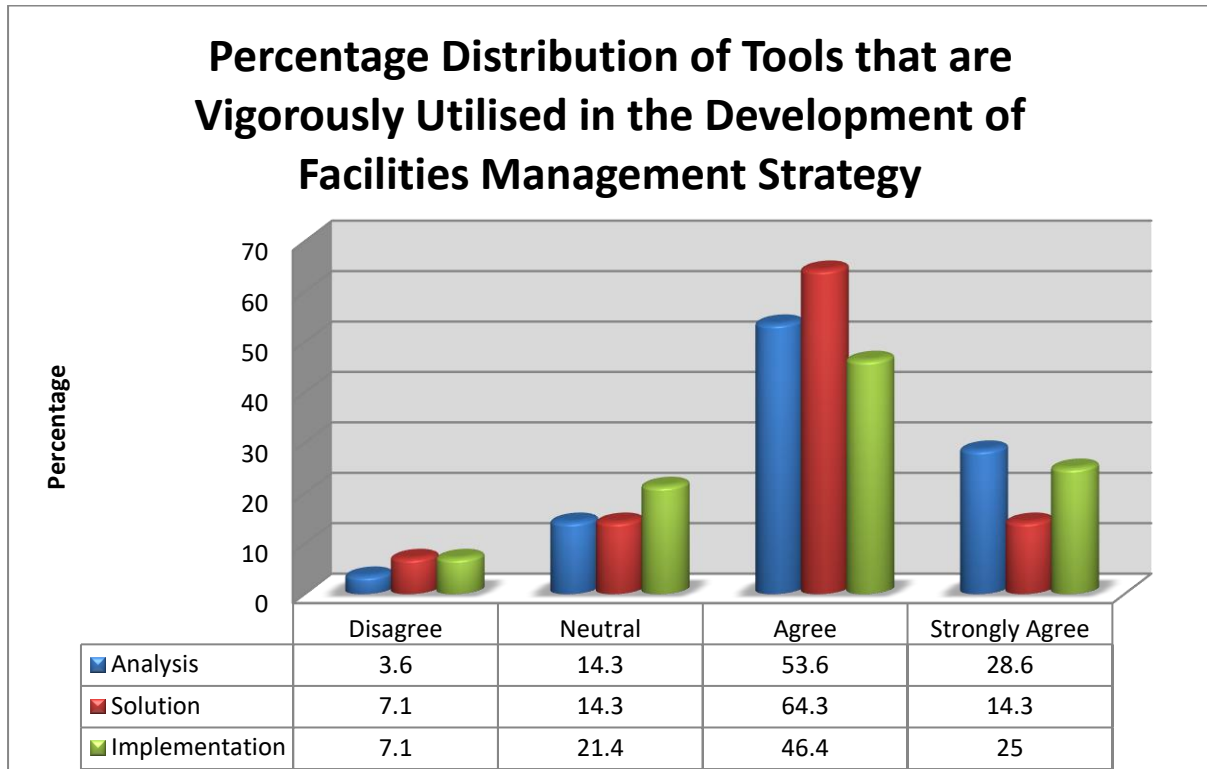


Figure 4.10: Perceptions of Employees on Tools Utilized in the Development of a Facilities Management Strategy

Research findings indicate that 53.6% of the respondents were of the opinion that analysis is one of the tools that is vigorously utilised in the development of a facilities management strategy, while 64% agreed by responding that solution is vigorously utilised in the development of a facilities management strategy. Implementation was also viewed as a tool that is vigorously utilised in the development of a facilities management strategy. In general, all three tools that were included in the research instrument, that is, analysis, solution and implementation were all regarded by the employees as tools that are vigorously utilised in the development of a facilities management strategy. The findings show that all the three factors are utilised as tools in the development of a facilities management strategy. In the municipality analysis, solution and implementation are all utilised in the development of facilities management strategy.

4.4.4 Perceptions of Employees Regarding Facilities Management and Property Management

Table 4.3: Perceptions of Employees on Facilities Management & Property Management

Do you agree that the following statements define and describe facilities management?	SA	A	N	D	SD	p-value
Facilities management forms part of the projects and maintenance section.	0	10.7	21.4	39.3	28.6	<0.0001*
Lack of knowledge results in poor management of ADM properties.	0	7.1	14.3	35.7	42.9	<0.0001*
Unavailability of funding is the only cause of ADM properties / infrastructure decay.	3.6	32.1	17.9	32.1	14.3	0.174
Asset management, facilities management and property management are the same.	14.3	25.0	17.9	35.7	7.1	0.215
A building needs to be nurtured, understood and developed to its fullest potential.	0	3.6	21.4	39.3	35.7	<0.0001*
Facilities management is one of the sections of property management.	3.6	10.7	17.9	50.0	17.9	0.001*
Senior personnel should be appointed to implement a facilities management strategy and interpret the policy.	0	0	18.5	59.3	22.2	0.001*

N=28, no missing data. Statistically significant differences (* $p < .05$).

Overwhelming responses regarding the perceptions of employees of their understanding of the link between facilities management and property management were given. Most employees agreed (67.9%; $p = 0.001$) that facilities management is one of the sections of property management and that it forms part of the projects and maintenance section (67.9%; $p = <0.0001$). However, the majority (78.6%; $p = <0.0001$) of the respondents were of the view that a lack of knowledge results in poor management of ADM properties. They also felt that unavailability of funding was the only cause for the decay of ADM properties / infrastructure (46.4%). Table 4.3 above also reveals that there is significant evidence from the data that most employees agreed with the view that a building needs to be nurtured, understood and developed to its fullest potential (75%; $p = <0.0001$). Participants are of the opinion that facilities management and property management are linked. The participants perceive facilities management as a component of property management. Lack of knowledge and unavailability of funding was perceived by participants as factors driving the poor management of facilities or property in the municipality. Having people who lack the technical expertise to manage facilities or properties and inadequate funding to maintain the facilities are factors that result in poor maintenance or decay of municipal facilities or property.

4.4.5 Utilisation of Information Technology Systems in Facilities Management

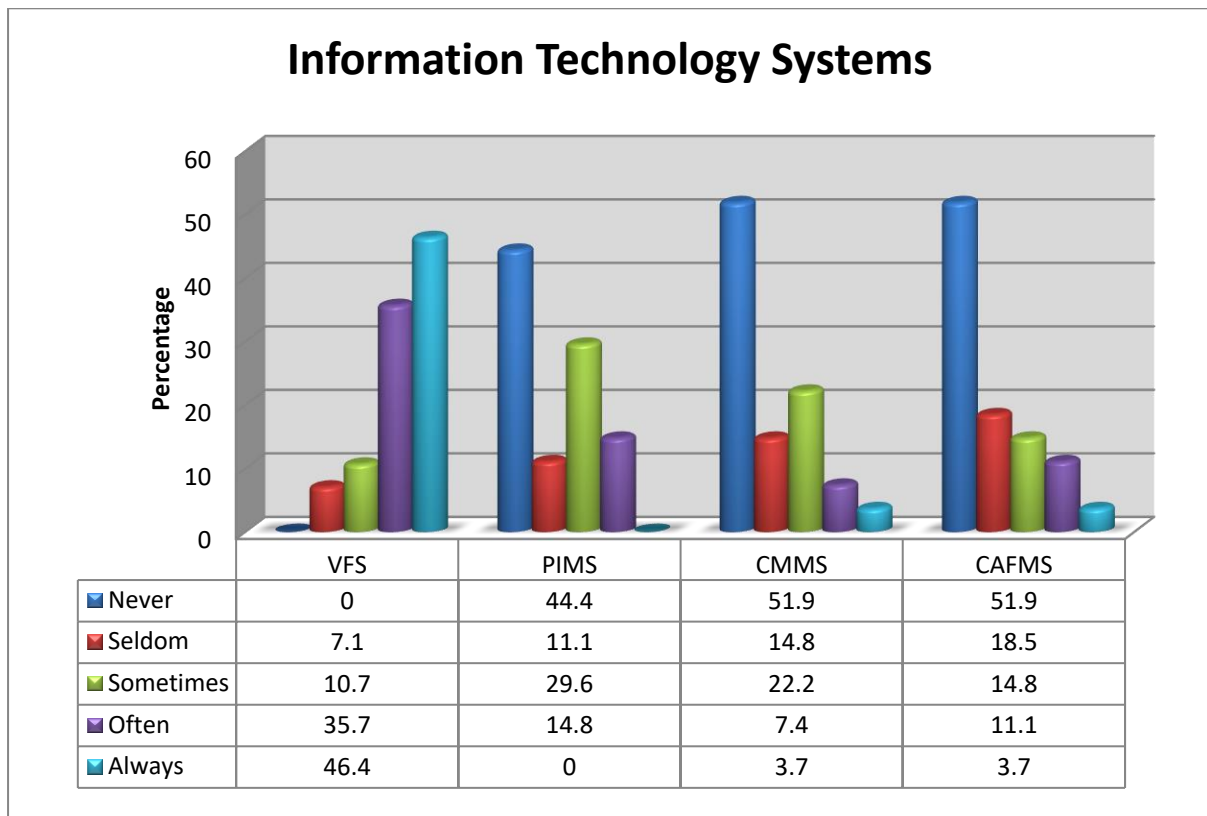


Figure 4.11: Utilisation of Information Technology Systems in Facilities Management

In the questionnaire the respondents were required to respond to questions concerning the use of various information technology systems in facilities management. Figure 4.11 above indicates that the Venus Financial System (VFS) is the most widely used system within the four facilities management software packages. It was reported by the majority of employees that they did not ever use the following systems: the Property Information Management System (PIMS), the Computerised Maintenance Management System (CMMS) and the Computer Aided Facilities Management System (CAFMS). From the responses provided by the participants it can be seen that the Venus Financial System is the commonly and widely used information system in the municipality. The PIMS, CMMS and CAFMS are used at a small degree and at most managers have never used them compared to the VFS. This shows that VFS is an important system that is utilised by managers in Facilities Management.

4.4.6 Activities Commonly Performed Within Facilities Management

In order to establish the activities that are commonly performed within facilities management, an analysis of the mean outcomes of each respective construct was conducted. Table 4.5 below

indicates the descriptive statistics of the mean outcomes. Financial management (mean = 3.1728, SD = 1.28226), health and safety (mean = 3.2500, SD = 1.11342), business organization (mean = 3.1190, SD = 1.29962) and operations (mean = 3.2589, SD = 1.19506) were seen to be ‘sometimes’ commonly performed activities within facilities management. Generally, most employees had the opinion that support services, property management, managing services and security are “seldom” performed within facilities management. The individual construct of the activities that are commonly performed within facilities management are discussed below. From the activities provided in the table below it can be seen that financial management, health and safety, business organization and operations are the most common activities performed within facilities management in the municipality. The participants perceive these as the common activities they perform while managing facilities. Support services, property management, managing services and security are seldom performed by the managers.

Table 4.4: Descriptive Statistics of the mean outcomes

	N	Minimum	Maximum	Mean	Std. Deviation
Financial Management	27	1.00	5.00	3.1728	1.28226
Support Services	28	1.00	5.00	2.8333	1.34103
Health and Safety	28	1.00	4.67	3.2500	1.11342
Property Management	28	1.00	5.00	2.5714	1.18606
Business Organisation	28	1.00	5.00	3.1190	1.29962
Operations	28	1.00	5.00	3.2589	1.19506
Managing Services	28	1.00	4.75	2.5893	1.14102
Security	28	1.00	4.33	2.8571	1.33466

4.4.6.1 Financial Management

In terms of financial management, the research instrument was designed to measure the extent to which employees currently perform activities such as budget preparation, operating costs analysis and budget reviews. From Figure 4.12 below it is evident that the majority of the employees perform these activities on a regular basis. In most cases, they often perform these activities. Within financial management the most common functions are budget preparation, operating cost analysis and budget reviews and from the study findings it is evident all these functions are being carried out in facilities management in the municipality. Budgets are prepared, operating costs are analysed and the budgets are reviewed by the managers while managing facilities in the municipality.

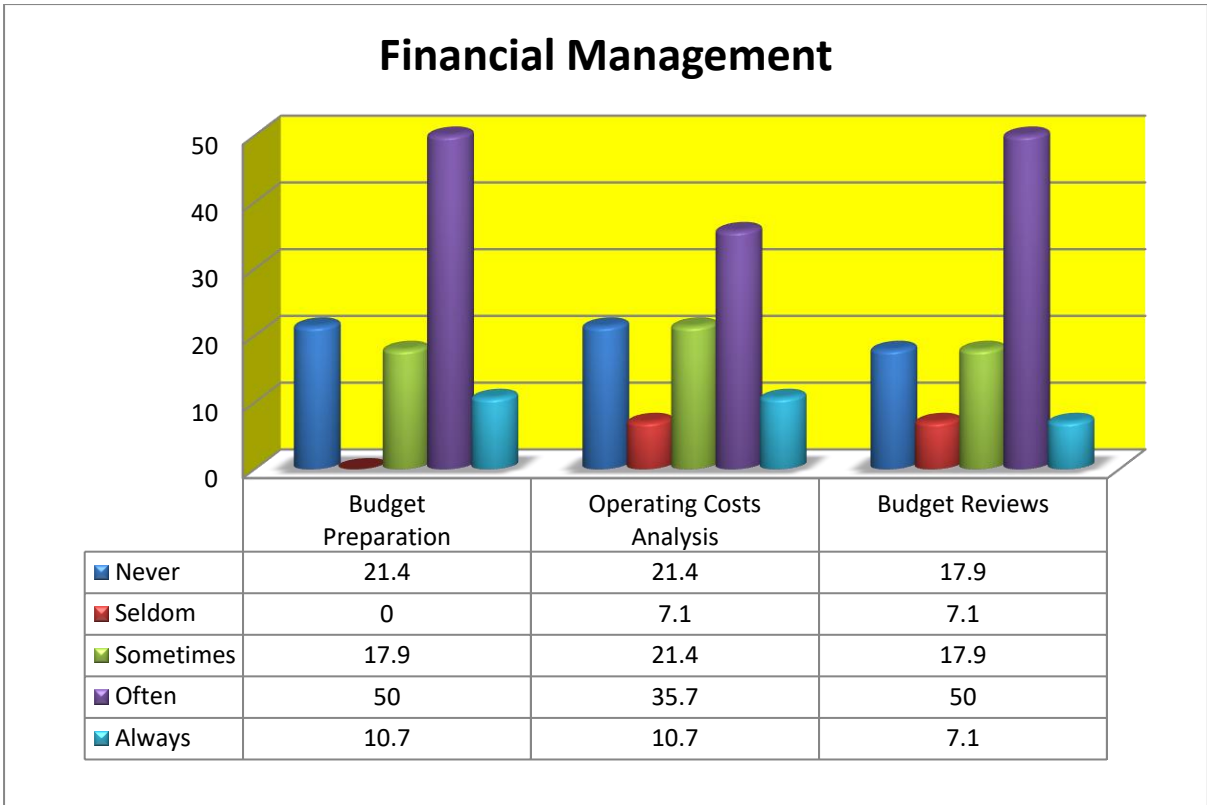


Figure 4.12: Financial Management

This section aided in addressing the second objective of the study.

2nd Objective: To determine whether analysis of the cost structure of facilities management, to ensure that proper planning aligned with the budget, is carried out.

A non-parametric test using the asymptotic chi-square tests was conducted to infer on this study objective. The 5-point Likert scale (Never (N), Seldom (S), Sometimes (ST), Often (O) and Always (A)) was collapsed to a 3-point Likert scale by merging N and S as well as O and A. This was done for the sake of conducting a chi-square comparison on those who say “never” (N and S), those who say “always” (O and A) and those who neither say never nor always (ST). The given p-values are for such comparisons.

Table 4.5: Descriptive Statistics on the Mean Outcomes

Please indicate to what extent you are currently performing these functions.	N	S	ST	O	A	p-value
Operating Costs Analysis	22.2	7.4	22.2	37.0	11.1	0.236

All categories of employees who said always, never and sometimes are significantly equal, hence the respondents are not sure whether the analysing of the cost structure of facilities management to ensure proper planning aligned with the budget is carried out ($p = 0.236$).

4.4.6.2 Support Services

There is no clear evidence from the data to reveal whether support services such as cleaning, catering and gardening are regularly performed by employees within facilities management. The overall mean suggests that these services are sometimes performed. However, the majority of the respondents were of the view that these services are never performed. Figure 4.13 below indicates that 32.1%, 28.6% and 39.3% respectively of the employees responded that cleaning; catering and gardening are never performed. From the study findings it can be seen that support services are not performed that much in facilities management. It is not a key function in the management of facilities or property.

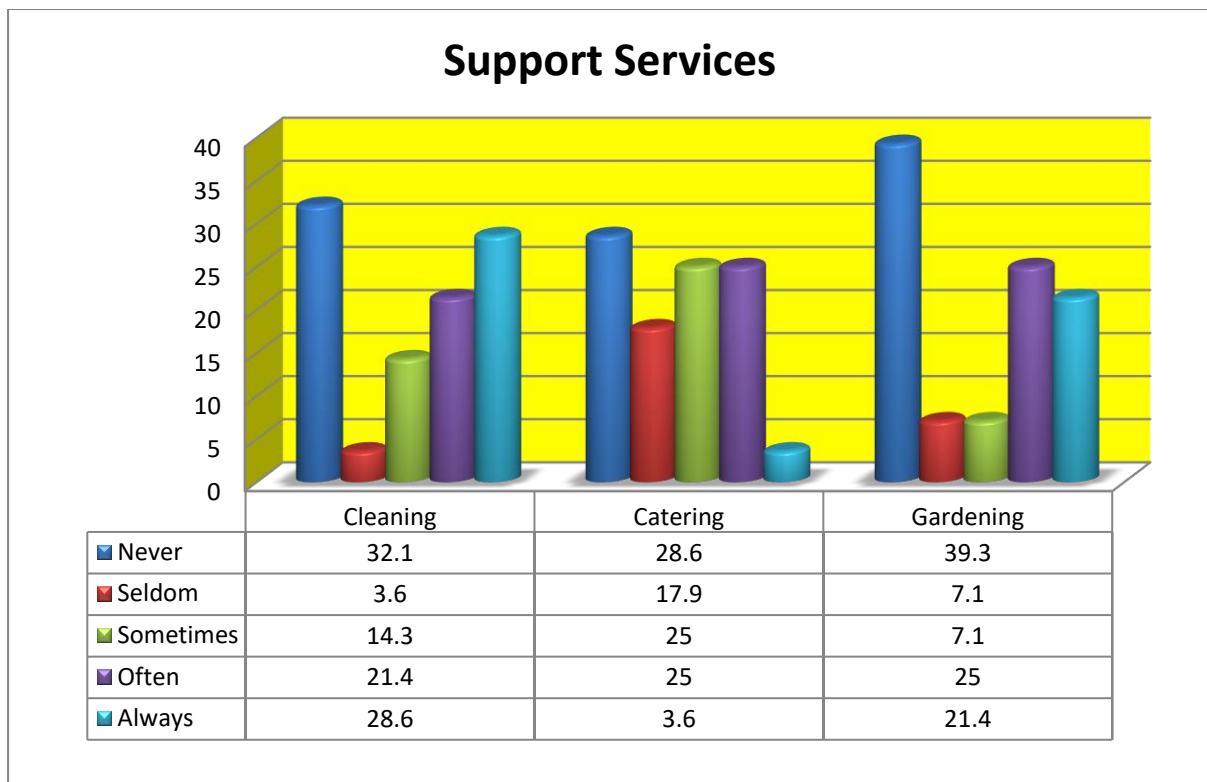


Figure 4.13: Support Services

4.4.6.3 Health and Safety

The majority of the respondents reported that statutory compliance (46.4%) and environmental safety (57.1%) are often performed within facilities management. There was no clear indication

of the use of fire fighters within facilities management. With various state legislations promoting health and safety it can be seen that in the management of facilities within the organisation consideration is taken on health and safety. Within the municipality it is evident health and safety is performed to ensure statutory compliance with state legislations as well a safe environment. As the focus in on property and facilities there is a need to ensure that in the management of these facilities management complies with laws and regulations on health and safety in building environment and ensures the environment is safe for all citizens. The results show that within health and safety in facilities management compliance with statutory laws and environmental safety are performed in the municipality.

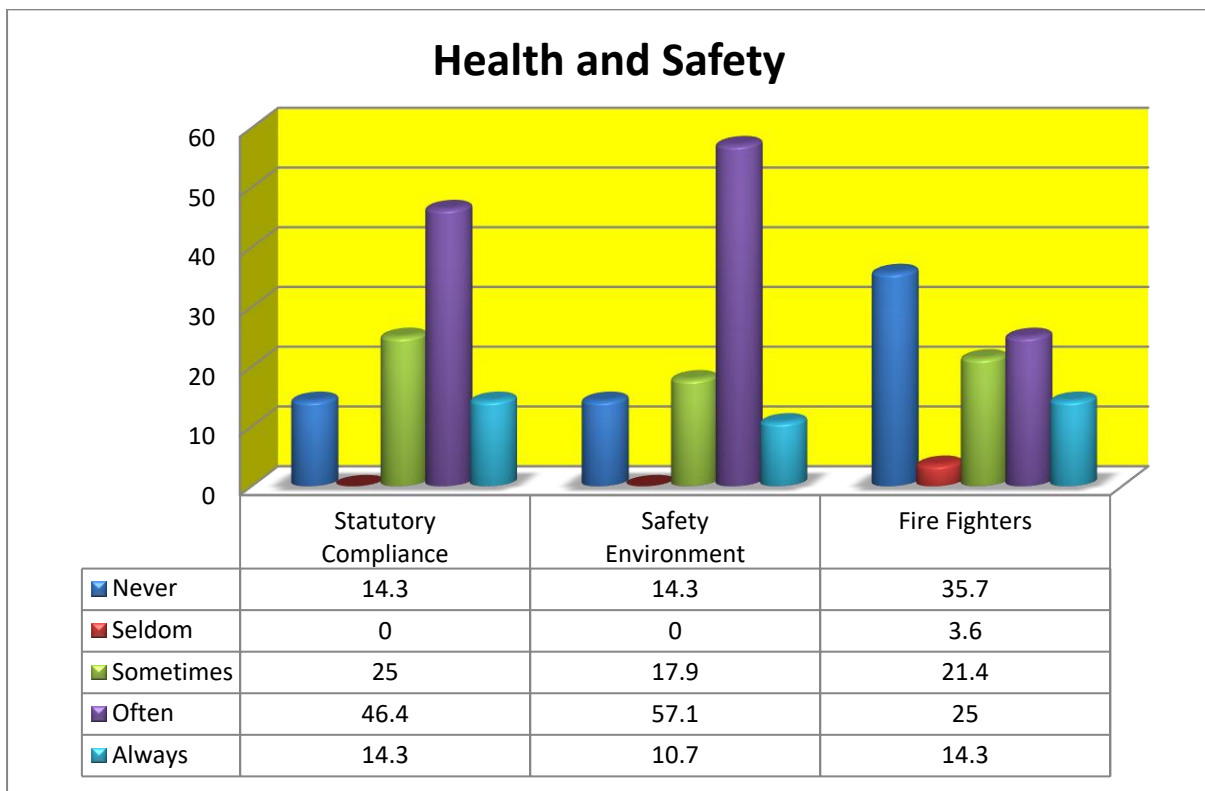


Figure 4.14: Health and Safety

4.4.6.4 Real Estate / Property Management

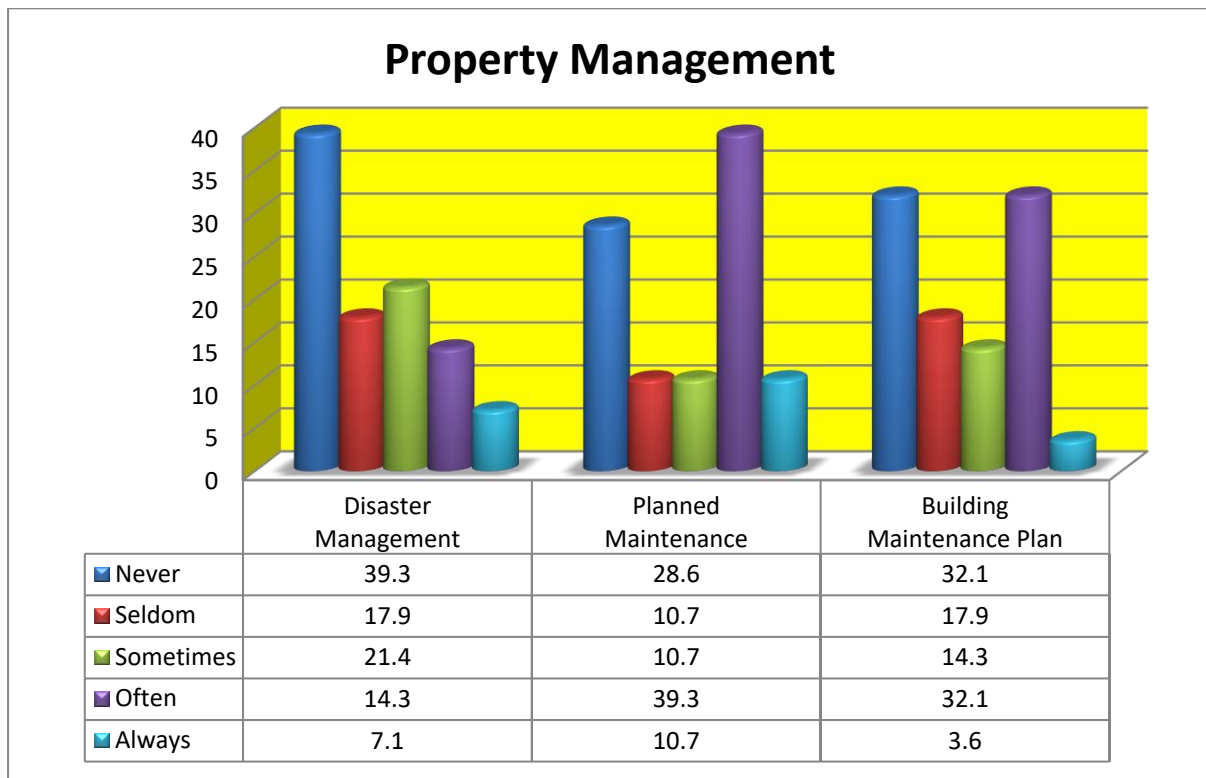


Figure 4.15: Property Management

There is no clear evidence from the data to reveal whether support services such as disaster management, planned maintenance and building maintenance are regularly performed by employees within facilities management. The overall mean suggests that these services are never performed. However, a limited number of respondents had the opinion that these services are often performed. Figure 4.15 above indicates that 39.3%, 28.6% and 32.1% respectively responded that disaster management, planned maintenance and building maintenance are never performed. This section aided in addressing the first and fourth objectives of the study.

1st Objective: To determine whether pro-active planning to optimise sustainable physical infrastructure is carried out.

A non-parametric test using the asymptotic chi-square tests was conducted to infer on this study objective. The 5-point Likert scale (Never (N), Seldom (S), Sometimes (ST), Often (O) and Always (A)) was collapsed to a 3-point Likert scale by merging N and S as well as O and A. This was done for the sake of conducting a chi-square comparison of those who say “never” (N and S), those who say “always” (O and A) and those who neither say never nor always (ST). The p-values given are for these comparisons.

Table 4.6: Planned maintenance

Please indicate to what extent you currently perform these functions.	N	S	ST	O	A	p-value
Planned maintenance	28.6	10.7	10.7	39.3	10.7	0.031*

The results indicate that pro-active planning is being conducted to optimise sustainable physical infrastructure (Always = 50%; $p = 0.031$). From the findings indicated in Figure 4.15 and table planned maintenance seem to be performed to a greater extent in the municipality. In order to properly manage the facilities in the municipality there is need to engage in planned maintenance. Planning before ensures functions are performed well and sustainable physical structure is optimised. It is evident that the managers in the municipality to a large extent perform maintenance planning so as to ensure facilities and infrastructure is maintained and become sustainable. This shows that pro-active planning is conducted within the municipality to ensure that facilities are sustainable rather than being reactive. Maintenance is done prior to decay thus ensuring facilities are sustainable.

4th Objective: To determine whether aspects such as infrastructure maintenance, emergency and urgent acquisition, acquisition of leased properties, transfer of facilities from municipalities, disposal, facilities asset register and capitalisation of immovable assets in the facilities management strategy for the ADM.

In Table 4.4 the mean level of property management (mean = 2.5714; SD = 1.18606) indicates that the employees agree that aspects such as infrastructure maintenance, emergency and urgent acquisition, acquisition of leased properties, transfer of facilities from municipalities, disposal, facilities asset register and capitalisation of immovable assets in the facilities management strategy for the ADM are not “always” carried out.

4.4.6.5 Business Organisation

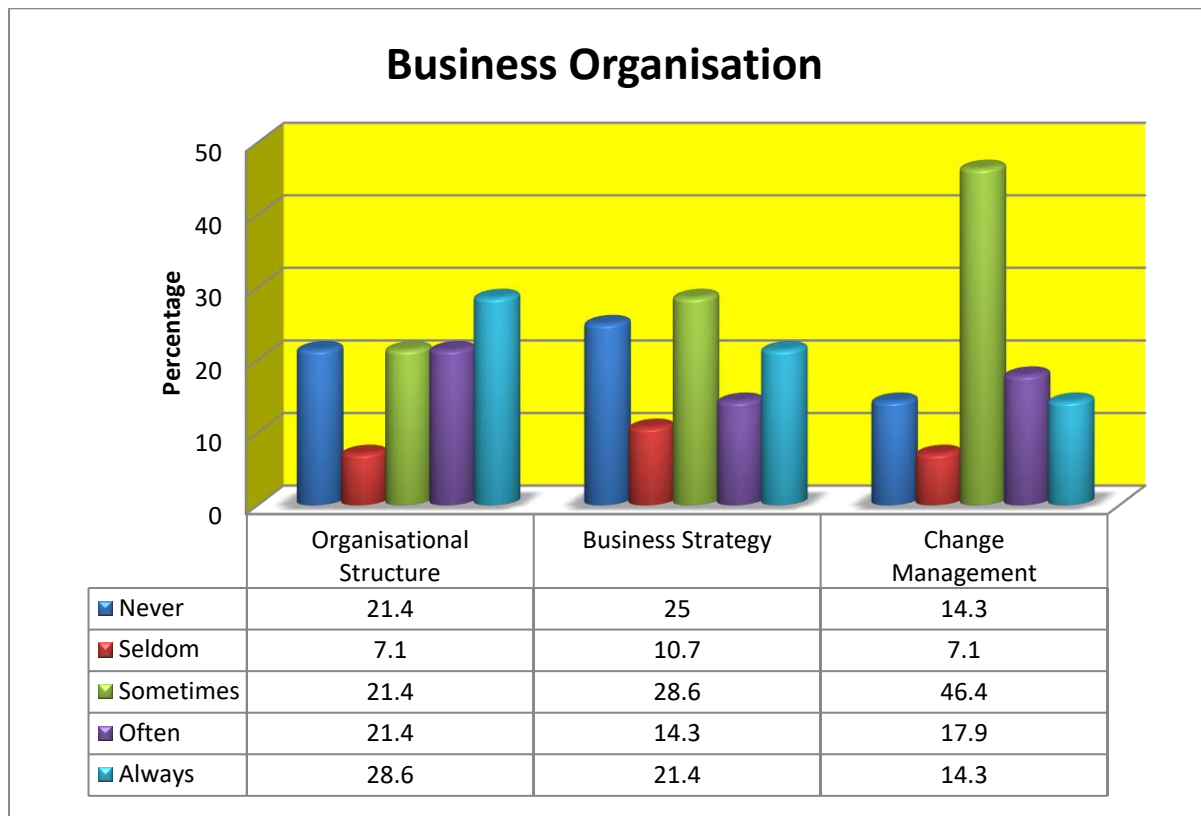


Figure 4.16: Business Organisation

The majority of the respondents reported that change management (46.4%) and business strategy (28.6%) are sometimes performed within facilities management. With regard to organisational structure, the majority agreed that it is always performed within facilities management (28.6%). This section aided in addressing the third objective of the study.

3rd Objective: To determine whether the organisational structure for facilities management (FM) is fully developed so that facilities management carries out its mandate.

A non-parametric test using the asymptotic chi-square tests was conducted to infer on this study objective. The scales were collapsed in the same way as the first and second objectives. The results indicate that employees are not sure whether organisational structure for facilities management (FM) is fully developed in order for facilities management to carry out its mandate ($p = 0.156$). From the findings, it can be seen that managers are of the perception that the organisational structure for facilities management is not fully developed and this hinders facilities management in carrying its mandate. The mandate of facilities management is obstructed by the organisational structure that is not fully developed in the municipality.

Table 4.7: Organisational Structure

Please indicate to what extent you are currently performing these functions.	N	S	ST	O	A	P-value
Organisational Structure	21.4	7.1	21.4	21.4	28.6	0.156

4.4.6.6 Operations

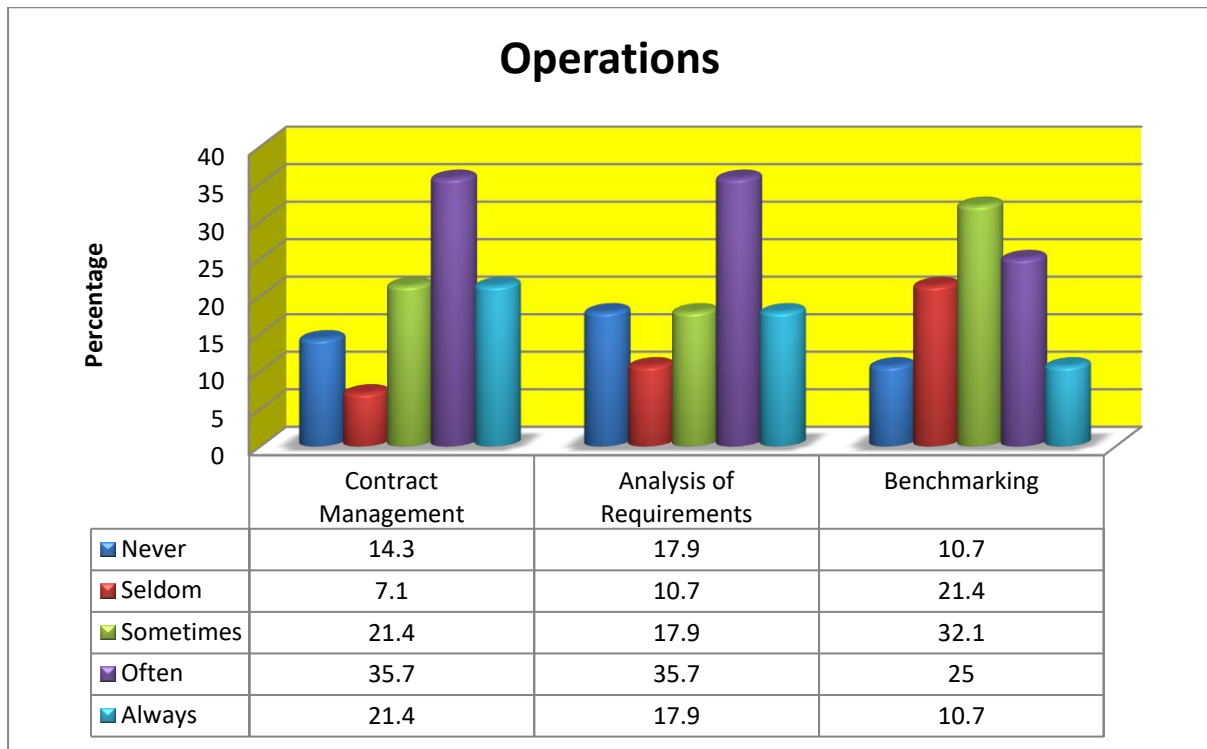


Figure 4.17: Operations

In terms of operations, the research instrument measured contract management, analysis requirements and benchmarking. From Figure 4.17 above it is evident that the majority of the employees perform these activities on a regular basis. In most cases they often perform these activities. Contract management, analysis of requirements and benchmarking are performed by employees in the municipality during operations.

4.4.6.7 *Managing Services*

There is no clear evidence from the data to reveal whether support services such as client satisfaction and financial management strategic management are regularly performed by employees within facilities management. In terms of financial management and strategic management, 32.1% agreed that it has never been performed while another 32.1% agree that it is sometimes performed, similar to client satisfaction. It is therefore not clear whether or not it is performed. The majority of the respondents are of the opinion that value chain services are sometimes performed. There are mixed perceptions towards managing services. Results show that some believe financial strategic management, client satisfaction and value chain are being performed while some believe they are never performed in the municipality. From the analysis it is evident that such functions are not performed to a large extent in the municipality.

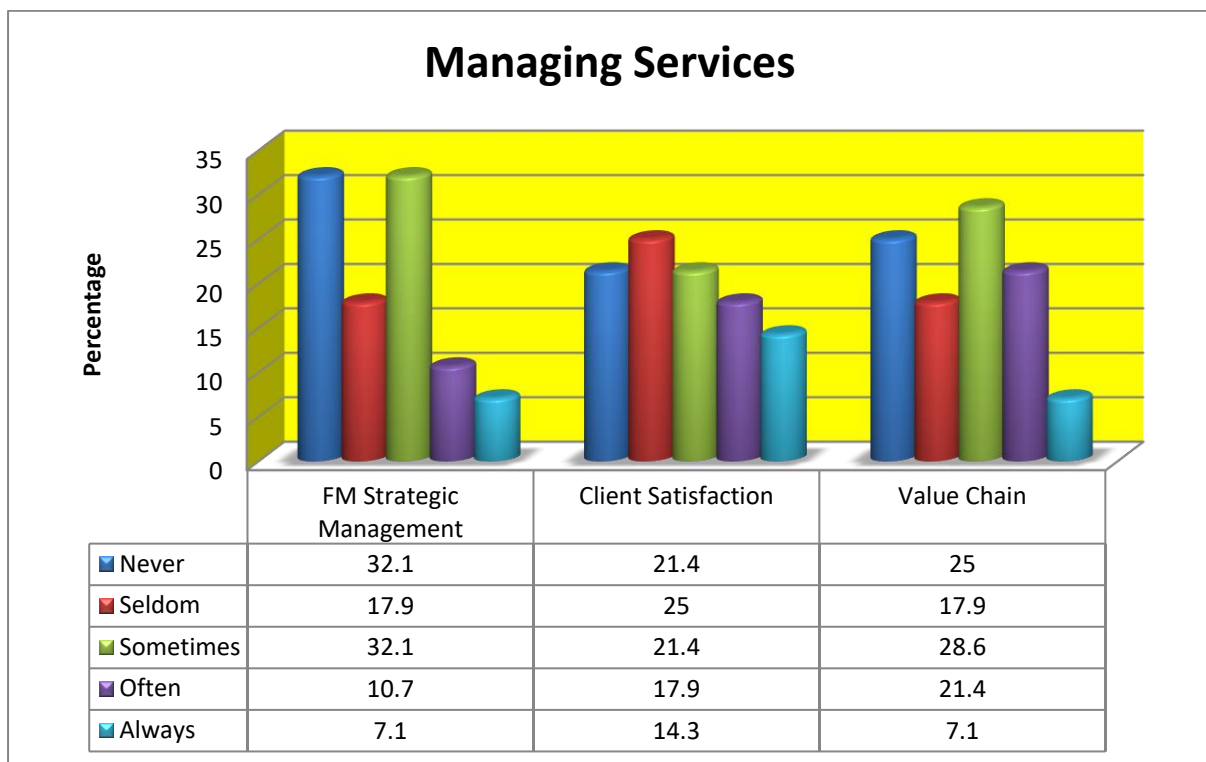


Figure 4.18: Managing Services

4.4.6.8 Security

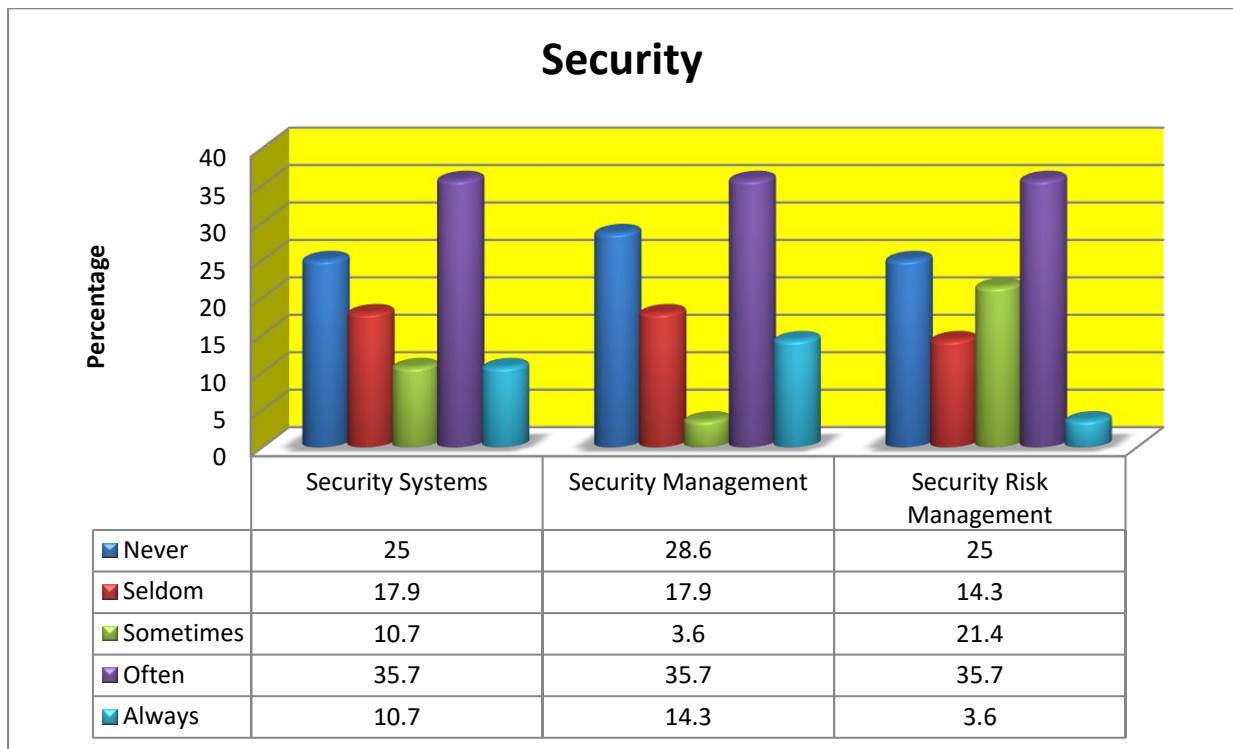


Figure 4.19: Security

The majority of the respondents reported that security systems, security management and security risk management are often performed within facilities management (35.7%). It is evident that security is performed in facilities management at the municipality. Facilities within the municipality have to be safe and security systems, security management and security risk management are performed to ensure the security of facilities in the municipality. This is a function that the participants indicated is performed to a large extent and ensure facilities are secured.

4.4.7 Benefits of Facilities Management in the ADM

The respondents identified the main benefits of facilities management in the ADM as being those discussed below.

Policies

Two respondents mentioned that facility management provides policies for personnel to comply with procurement processes. An effective facilities management system has a policy that will ensure compliance by staying current with new codes and regulations, thus ensuring

a safe environment that can be measured against international standards. Understanding internal policies and processes can also lead to reduced risk of poor performance by service providers. Having policies guide the conduct of employees and ensure compliance with such resulting in standardised management of facilities.

Cost value benefit

It can be observed from the responses that two respondents identified cost saving value as a benefit of facilities management. They are of the view that regular maintenance avoids sudden large financial inputs that are not budgeted for. It is also a cost saving when implemented effectively. This will save money in the long run by reducing utility costs, eliminating expensive emergency service call outs, prevent down-time and possible legal issues. As maintenance is proactive, unnecessary financial costs are incurred with everything planned and properly carried out thus result in some cost value benefit.

Safety

The majority of the respondents (n = 13) identified safety as a benefit. Having a clean and healthy working environment is conducive to good work output and the general happiness of staff. Through facility management, the identification of hazards is easy and they can be dealt with before there are any consequences. Facility management also provides for the correct use of facilities in cases of community-oriented facilities such as health centres. Lost man-hours and money can be avoided through proper inspection and maintenance.

Good property management

Six respondents believed that good property / facilities management benefits the ADM. FM provides for all property conditions, performance and space management. It enables quick response to queries and a reduction in over spending and wastage. If FM is performed in the Municipality, property will be managed well in the municipality. This results in having facilities in good conditions and that are sustainable.

Efficient security system

One of the responses was that facility management provides efficient security systems at the ADM head office. Integrating various elements of an organization's physical and logical

security systems offers a range of benefits, such as providing a more comprehensive approach to security that is less vulnerable to incidents and better able to respond if one does occur. As security was found to be performed in the municipality they will be efficient security systems in the municipality.

4.4.8 Major Challenges Facing ADM Facilities Managers

Table 4.7 indicates the main challenges identified by respondents as being faced by ADM facilities managers.

Table 4.8: Major Challenges Faced by ADM Facilities Managers

	Challenges	Explanation	Number of respondents
1	Lack of prioritisation of facilities management.		1
2	Disability-friendly environment.	Facilities not conducive to people with disabilities.	1
3	Lack of supervision.	There is a lack of supervision in the department. This lack of supervision has affected the implementation of facility management activities. Housekeeping personnel not doing their jobs.	2
4	Facility management concept understanding.	There is a lack of understanding of the budget, working systems, integration of facility management into strategic planning, integration into asset management systems, understanding the value of planning and maintenance of work spaces or function areas.	1
5	Roles and responsibilities.	There is a lack of understanding of the roles and responsibilities and a lack of technical skills.	3
6	Outsourcing challenges.	Outsourcing certain repair works to service providers who fail to perform, or delay in responding to call outs. Lack of immediate control and supervision when it comes to institutes facilities as maintenance is done by outsourced service providers	2

	Challenges	Explanation	Number of respondents
7	Satellite offices.	Managing is mostly based at head office whereas there are also satellite offices, thus making it difficult to manage facilities. Distance between branches leads to delays - such as time taken to sign memos.	2
8	Support.	Lack of support from other departments and management. Other departments do not take facility management seriously and think it is there for cleaning purposes only.	2
9	Having to perform both strategic and operational roles.	Saving money and maximizing the budget is one of the chief concerns in facilities management.	2
10	Maintenance of buildings.	In terms of buildings, when the department leases a buildings they are faced with difficult landlords. Another problem faced is poor record keeping of leases.	4
11	Budget constraints.	There is a limited budget for facility management. Organizations regularly fail to allocate necessary funds to facilities managers, which can make maintenance work extremely difficult.	8
12	Shortage of staff and equipment.	There is no facility manager in the department. His/her work is being shared amongst managers from other areas, making it difficult to ensure effective accountability. There is also a shortage of equipment in the department.	7

One challenge highlighted by most of the participants was budget constraints. The lack of funds being allocated towards the management of the facilities in the municipality makes it difficult for the managers to execute their functions. Without sufficient funds being allocated maintenance of facilities becomes difficult for managers. Within the municipality they also seem to be a problem of a shortage of qualified personnel to ensure the effective and efficient management of facilities as well a lack of equipment to ensure facilities are properly managed at the municipality. Without the proper personnel and equipment it makes it difficult to manage

facilities within the municipality. The maintenance of buildings is also made difficult by poor record keeping of leases as well having personnel which are not aware of their roles and responsibilities. Lack of supervision and support from other department was also found to be a challenge towards managing of facilities.

4.4.9 Management of Facilities Management

This section presents the responses to the question of whether the facilities management was being well managed at the ADM. Fifteen respondents did not agree that facilities management was being well managed, four believed it was being managed well and the last group of four believed it was being managed well but needed improvement in certain areas.

The respondents who believed that facility management was not being well managed supported their opinion with the following reasons.

- The budget allocation is not equal to facility management plans.
- Poor record keeping results in facilities in need of maintenance or revamping not being seen to. The person responsible is unaware of the existence of some facilities. This indicates that facilities are being under-utilized and could be put to better use to derive income for the ADM.
- There is inadequacy in terms of performance as skills and qualifications are limited.
- There is no facility manager to ensure effective facility management. The department is in need of more staff and equipment.
- There is a need for security. Reliance on landlords slows down the turnaround time of the maintenance team.
- There is a need for training on issues such as maintenance, contract management and budgeting.
- Tea servers and cleaners are not well managed and offices are poorly kept.
- The ADM employs a reactive approach that is scattered across various units.
- There is a lack of supervision of lower level employees.

The respondents who believed that facility management was being well managed justify their opinion by stating that there are no major problems, procedures and manuals are applied correctly, there are dedicated staff members and training is provided by the ADM.

Four respondents agreed that facility management was being well managed but there is a need for improvement in satellite offices in terms of transparency in hiring and renting out. One also blamed the procurement process, which makes it difficult for rapid response.

4.4.10 Solutions to Challenges

The following were solutions identified by respondents to challenges within the ADM.

Facility management started

There is a need for a facility management strategy to be in place and utilised in all aspects of the job. The strategy will act as a guide for the facilities management employees on how to perform their jobs effectively and what they plan to achieve to enhance their department's performance. With a facility management strategy in place this will serve as a guideline that drives employee performance and the effective and efficient management of facilities.

Property audit

One of the recommendations was to undertake a property audit. A property audit will provide information on the current use, condition, potential income generation and cost benefit analysis of the available facilities. Through conducting a property audit, the municipality is able to know the state of their property and ensure those that need maintenance are maintained before decay and ensure sustainability.

In-house maintenance

It was observed that respondents favour having maintenance performed in-house and that using outside service providers is not ideal. This can be due to delays by service providers and unacceptable standards of work. Outsourcing of external service providers was found to be a challenge as there is limited supervision of such providers leading to the poor maintenance of property. Therefore, through in-house maintenance, challenges posed by having external service providers are reduced as maintenance is done internally.

Facility management unit

The respondents are of the opinion that there is a need to establish a facility management unit and transfer all relevant functions to it. This unit will deal with all issues that relate to facilities

and will acquire a system to enhance the management of facilities. Having one unit within the municipality that deals with managing facilities is key towards managing the facilities. Such a unit will be accountable for all functions related to the effective management of facilities.

Single point entry

The responses indicate that there is a need for a single point entry. A single point entry assists in the coordination of all services relating to the efficient and effective running of a facility. Having a single entry ensures coordination, control and efficient security of facilities in the municipality.

Staff planning

There is a need to appoint a facility manager responsible for the entire facilities management function. There is also a need for proper staff planning by empowering existing staff and prioritising positions. More staff are required at satellite offices. Human resources are key towards successful maintenance of facilities therefore by having sufficient qualified staff this can aid the sufficient and effective maintenance of facilities.

More funding

More funding should be provided at facilities so that they will be able to meet their objectives and strategic plans. With the lack of funding being a challenge towards the effective management of facilities providing funding will help towards the effective and efficient management of facilities.

Procedure manuals and training

There is a need for procedure manuals and training for all the employees in facility management. Communication and awareness campaigns should be launched so that individuals will have a better understanding of facility management. Employees lack knowledge regarding the procedures, for instance, how to request for something to be fixed. Awareness is needed for effective facility management.

4.4.11 Centralization of the Budget for Facilities Management

Table 4.9 presents the opinions of the respondents with regard to the centralisation of the budget being the answer to facility management problems. The responses indicated that 10 respondents disagreed, 12 respondents agreed and two were unsure. The table indicates the motivation for the answers that were chosen.

Table 4.9: Perception Regarding Centralization of the Budget for Facilities Management

No	Not sure	Yes
The budget will be utilised on only one section. The budget should be distributed according to the strategy plans.	It depends on what the audit system suggests is most beneficial to the ADM, as certain costs could be incurred by other internal departments such as engineering (specialist skills), asset management (system licences) and human resources (coordination).	A helpdesk should be provided for all services and customer activities.
Performance does not revolve around budget management but on the skills to manage and perform backed by available policies and legislation.	The ADM budget is very tight and unless centralisation will change this, there is no need to centralise.	For better planning and economic utilisation of resources
It will result in employees without knowledge of budgets and accounting being responsible for the operation.		To gain a clear picture on budget availability and to balance the budget and allocation.
Decentralise and distribute resources equitably.		To allow prioritisation of work and analyse what needs to be done and when and to be fully accountable.
		This will avoid the return of funds, as funds could be transferred and utilised for other projects.

4.4.12 Additional comments

This section provides additional comments from the respondents on the last part of the questionnaire.

- There is a need for prioritising facility management at the ADM as facility management is not viewed as an investment or income.
- There is a need for clarification on personnel responsibilities and communication regarding facility management must be enhanced.
- There is a need for improvement and clarification of systems for all employees.
- There is a need for training of personnel and awareness campaigns.
- Decisions with regard to facilities management must be made by that department and not by other people in the supply chain.

CHAPTER 5

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 INTRODUCTION

The previous chapter presented an analysis of the data that was collected from the field and a discussion of the results after descriptive and inferential statistical analysis. With special reference to the results discussed in the previous chapter, this chapter offers an outline of the extent to which the objectives of the study have been realized. The chapter also focuses on the conclusions, limitations and recommendations and offers guidance for future research in related studies.

5.2 DISCUSSION OF STUDY RESULTS

5.2.1 Summary of the General Perceptions of Facilities Management

Prior to seeking understanding of the perceptions of the respondents, their biographical information should be discussed. It should be noted that the majority of the respondents had earned a degree as their highest qualification, there were more male respondents and the majority were aged between 46 and 55, which is a good sign of stability in the organization. The older the management, the more stable the organization (Price, 1997). Most respondents had 1-5 years' working experience, which could pose a challenge for FM. It is commonly understood that a person that has spent a lengthy period in an organization has a better working knowledge and insight into that organisation, which gives them an added advantage in the performance of their responsibilities.

The majority of the respondents had 10-39 employees, which is rare, as in cases where there are only a few subordinates outsourcing of services is practiced. In addition, most respondents had little or no experience in facility management. Experience plays a major role in any field. Experience, or tacit knowledge is a particular form of knowledge that is sometimes difficult to articulate. Nonaka and Takeuchi (1995) hold that tacit knowledge is personal knowledge embedded in individual experience and involves intangible factors such as personal beliefs, perspectives and value systems. Experienced employees have a major role in the organization, especially in the mentoring of newcomers in the working environment.

The majority of the respondents had qualifications in facility management other than a diploma or bachelor's degree, which is a challenge facing this organization. Training is the key for FM, as without knowledge the portfolio will never yield the desired results. Lack of tertiary education results in a lack of knowledge and expertise in FM. It is a fact that without proper education or training, service delivery cannot be of an acceptable standard.

Lastly, the majority of the respondents had no professional membership. Membership of a professional organization can be a source of knowledge about that discipline for its members, and a place where they can discuss important developments within that discipline. The non-affiliation of the managers to these professional bodies might present a challenge for FM, as the business environment is continuously changing and professional organizations are often the best source of information that is both current and relevant.

This section deals with the general perceptions of the respondents in terms of facility management. Firstly, the general perceptions and understanding of facility management. From the study's results it can be noted that most respondents are of the opinion that facilities management is a profession that encompasses multiple disciplines; activities such as planning, designing and managing complex facilities and the management of buildings. The majority of the respondents disagree that facilities management is the management of only cleaning, gardening and security services. It was noted that there is a general misconception of what facility management entails, as indicated by Barret and Baldry (2003) when they posited that facilities management is a relatively new profession with a certain amount of mistrust and misunderstanding of what it is about. Numerous people believe that facility management is only about cleaning and security. However, facility management is a practice of integrating the management of people and the business process of an organization with the physical infrastructure to enhance corporate performance (Best, Langston & De Valence, 2003:1).

Secondly, the respondents believed that various factors perform a significant role in stimulating the growth of facilities management. The data indicated that the high cost of space, information technology, employee expectations, global competition and the Construction Industry Development Board are the most widely perceived to be factors that stimulate growth in facilities management. Cloete (2002:48) is of the opinion that the central challenge of FM is how to best match the requirements of the organization with its physical space. Employee expectations is also seen to have an effect on facility management, as employees of today are sophisticated and expect more than a safe working environment (Becker, 1990:12). They want

good, comfortable, pleasant working conditions coupled with meaningful working relationships and recognition. Global competition is increasing daily in the business environment and has a substantial impact on an organization's profitability. There is a strong focus in the public sector on achieving value for money and efficiency in the delivery of public services; therefore, property management, which encompasses FM, cannot afford to fall behind (Robson, 1997).

Thirdly, the perceptions of respondents with regard to tools utilised in the department of facility management strategy. The respondents believed that all three tools, namely analysis, solution and implementation are being used effectively in the department. The results of the study are supported by Atkin and Brooks (2005:12), who posit that an organization should follow these three stages to produce an effective strategy for the management of its facilities. Analysis of all relevant facts are assembled, including the organization's objectives, needs and policies, solutions from the criteria used for judging options are defined and evaluated against the objectives of the organization to produce an FM strategy and lastly, implementation, which completes the strategic planning and development process through the establishment of an implementation plan that incorporates the key elements of procurement, mobilization, training, communication, review and feedback (Atkin and Brooks, 2005).

Fourthly, the respondents are of the view that facility management is a part of property management and that it is also part of the projects and maintenance section. They also felt that the unavailability of funding is the only cause of decay of the ADM's properties and infrastructure. There is also significant evidence from the data that most employees agreed that a building needs to be nurtured, understood and developed to its fullest potential.

Fifthly, With regard to information technology, it can be noted from the results that the Venus Financial System (VFS) is the most widely used system among the four facilities management software packages. It was reported by the majority of employees that they did not ever use the Property Information Management System (PIMS), the Computerised Maintenance Management System (CMMS) or the Computer Aided Facilities Management Systems. It can therefore also be noted that there is poor use of information technology, which will affect the implementation of facility management. Computer-based information systems promote and enable more efficient use of information at all managerial levels and promote improved decision making, improved managerial responsiveness and improved learning capacity and

capability. These benefits will ultimately enhance both the quality and cost effectiveness of the services provided by the facilities management function (Whole Building Design Guide, 2011).

Lastly, with regard to the centralisation of the budget being the answer to facility management problems, the responses indicated that 10 respondents disagreed, 12 respondents agreed and two were undecided. Centralization can help cut costs, facilitate best practice sharing and ensure that industry and functional trends are communicated to all facilities managers. Decentralization leads to communication and knowledge management problems while centralizing maintains consistency and helps to share best practices and lessons learned (Barret and Baldry, 2003).

5.2.2 Realization of the Objectives of the Study

The initial objective of this study was to determine whether pro-active planning to optimise sustainable physical infrastructure is carried out. It was anticipated that such an assessment would result in prescribing appropriate measures that can be used to improve facility management. The study's results indicate that pro-active planning is being conducted to optimise the use of the physical infrastructure. Barret and Baldry (2003) found that one of the ways to improve facilities services is to become more proactive and actively seek out problems and requirements before they become critical issues.

The second objective was to determine whether analysing the cost structure of facilities management would ensure that proper planning aligned with the budget is carried out. The results of the study indicate that all categories of employees who said always, never and sometimes are significantly equal, hence the respondents are not sure whether analysing the cost structure of facilities management to ensure proper planning aligned with the budget is carried out. Therefore, there is a need for the department to implement analysis of cost structures, as any cost estimates that are made will provide a better ability to review, with the project sponsors, the reasons for actual or anticipated cost and time over-runs. Cost benefit analysis, whether formal or informal, will follow the initial specification of a project. The purpose is to test whether the project, as specified, will be economically viable and whether or not it will generate good value for money. Leaving such feasibility studies until after a project has begun could mean that potential problems are not revealed in time to influence project planning.

The third objective of the study was to determine whether the organisational structure for facilities management is developed and fully staffed with qualified staff and is in the correct department so that FM carries out its mandate and creates jobs. The study's results indicate that employees were not sure whether the organisational structure for facilities management is fully developed so that facilities management is able to carry out its mandate. This is an indication that the department has an unclear organisational structure that limits the effectiveness of FM. This reporting relationship encourages communication between these functions, as they are required to attend employee services group meetings together. An efficient organizational structure promotes cost-savings, improved communication of industry and functional trends, increased consistency and enhanced best practices. Without an efficient organizational structure, FM cannot function at an optimal level.

The objective responses indicate that the department lacks the qualified staff essential for FM. According to Atkin and Brooks (2000:186), the core competencies in facilities management are, amongst other things, real estate management, financial management, organizational management, innovation and change management and human resources management. This is a clear indication that the professional appointed in this position needs to have knowledge many activities within the business, hence the need for qualified employees.

The last objective of the study was to determine whether aspects such as infrastructure maintenance, emergency and urgent acquisition, acquisition of leased properties, transfer of facilities from municipalities, disposal, facilities asset register and capitalisation of immovable assets are included in the facilities management strategy for the ADM. The respondents agreed that aspects such as infrastructure maintenance, emergency and urgent acquisition, acquisition of leased properties, transfer of facilities from municipalities, disposal, facilities asset register and capitalisation of immovable assets in the facilities management strategy for the ADM are not "always" carried out.

5.2.3 Benefits of Facilities Management

From the responses it can be noted that facility management is of benefit to the organization. Respondents are of the opinion that facility management provides for cost value benefits, the development of policies, safety, good property management and efficient security systems. These results are similar to those obtained by Cairns and Beech (1999), who stated that the benefits of facilities management include enabling cost-effective working processes within the

business, smarter working using intelligent IT systems and applications, management of buildings, people, assets and more and the integration of business information into one software platform, an increase in the overall efficiency of an organization, personnel retention, safety and maintaining complete compliance.

Van den Ende (2006:2) writes that facilities management should lead to the reduction of costs, a better quality of products and services, an effective organization, customer satisfaction and competitive advantage. Other benefits listed by Cotts and Lee (1992:10) include facility plans matching company plans, space being available when and where needed, capital expenditure being planned and controlled, employee productivity being maximized and costs being minimized, sometimes avoided and always predicted.

5.2.4 Challenges faced by ADM in facility management

The following are the challenges faced by the respondents in the ADM facility management department: lack of prioritisation of facilities management; disability-unfriendly environment; lack of supervision; misunderstanding of the facility management concept; unclear roles and responsibilities; outsourcing challenges; satellite offices; lack of organisational support; having to play both strategic and operational roles; maintenance of buildings; budget constraints and shortages of staff and equipment.

Some of these challenges were also found in a study by Cotts and Lee (1992), such as the company and its management not seeing facility management as an important part of the business but rather as a support service.

5.3 RECOMMENDATIONS

The following are recommendations emanating from this study.

- Availability and training on software such as The Property Information Management System (PIMS), the Computerised Maintenance Management System (CMMS) and the Computer Aided Facilities Management Systems. This is essential as they provide decision makers the ability to automate many of the data-intensive facility management functions and this typically results in continuous cost savings and improved utilization of assets throughout a facility's lifecycle (Whole building design guide, 2010).

- Recommendations from the respondents to improve their facility management included having a facility management strategy, property audit, in-house maintenance, a facility management unit, single point entry, staff planning, more funding, procedure manuals and training.
- Conduct detailed facilities audits in order to know the state of the components and facilities in the portfolio, prepare plans of action and develop a long-term budget (Kennedy, 2008; Lavy, 2008). It is estimated that the current replacement cost of all municipal engineering infrastructure and buildings is at least R300 billion. Given the poor state of much of this, and the repair and refurbishment consequently required in addition to planned maintenance, international norms require that 4% of the replacement value should, on average, be spent per annum on maintenance, (excluding disposal and replacement), amounting to about 12 billion per annum. However, the municipalities are generally budgeting less than half of this amount or there is no budget at all for maintenance with the result that municipal buildings and infrastructure are in a state of decay. The failure of municipalities is caused by inadequate revenue and budget and inadequate technical skills and experience to plan and implement appropriate maintenance programmes.
- The appointment of experienced (5 years) and qualified facilities managers will improve the status of state-owned properties due to their knowledge base in the discipline. One of the main problems is the lack of a facility manager in the department. If there was a senior manager appointed to manage the facilities management portfolio, this would assist the top management in decision-making with regard to facilities management. Hence, there is no facilities management policy and framework to guide the portfolio in the right direction.
- There is a need to elaborate on, and understand, the functions of the facility management unit. In the organization, facilities management activities (functions) are scattered all over the departments. Events management is run by the Legislative and Executive Support Services (LESS) department, a number of functions are based at the BTO (Budget and Treasury Department), while others are performed by the Land and Human Settlement Economic Development (LHSED) Department. The Security Management and Health and Safety units fall under the jurisdiction of the Corporate Services Department but they are not regarded as facilities management. Planned maintenance is performed at the Engineering Department, when in fact it is a facilities

management function. Such functions should all fall under the Senior Manager: Facilities Management. All the managers in the units mentioned in this text report to the Senior Manager: Facilities Management based in the Corporate Services Department.

- Provide for training and staff development should include trade certification, professional registration and continuous professional development in order to update the knowledge of all operational personnel. Training is considered a vital element to the overall facility management program, especially for operation and maintenance staff. When new equipment is installed or emerging technology is being employed, facilities personnel must be properly instructed and motivated. Training should be ongoing to keep up with technology and equipment changes in the facility management portfolio.
- It has been firmly established through this research that the resource level, (in terms of competent personnel and funding), of the Facilities Management Unit affects their ability to develop, operate and manage the support services effectively for the achievement of the goals of its organization. Therefore, the department should find ways to attract competent employees and increase its funding.
- The challenge now is to reduce the life cycle costs of buildings so as to increase their profitability, as expected by stakeholders. It is the responsibility of facilities managers to come up with strategies that will improve the performance of buildings and related services.

5.4 LIMITATIONS AND RECOMMENDATIONS FOR FUTURE STUDY

Several recommendations and limitations have been identified throughout this study, which may direct future studies. Several limitations identified include the fact that the sample of the present study was rather small. Also, the study only used questionnaires as data collection instruments. It is possible that in some cases respondents wanted some clarity before answering some of the questions but could not ask for an explanation. Another drawback is that social desirability may have caused some respondents to answer some questions untruthfully in an attempt to impress the researcher with their answers.

To solve these issues, future researchers could use combined methods of data collection to strengthen and enrich the findings. The research instrument used in this study was a questionnaire; for purposes of triangulation and in order to avoid common method variance,

data collection methods other than self-administered questionnaires should be used in future research. In future studies a larger random sample should be used, as this would increase the generalizability of the findings. The sample should be drawn from a larger population than only employees from the ADM. This would ensure external validity.

Future research should take the following points into consideration, as they improve the building facility management practice.

- (a) Preparation of building operation and maintenance policy.
- (b) The importance of establishing a facility management association.
- (c) An investigation into models and strategies that are suitable for FM in the public sector to improve the current situation.

5.5 CONCLUSION

Conclusions are drawn from the study by combining the findings, discussions and recommendations as to what should be done to solve problems. All the main objectives of this research have been achieved. The following conclusions are drawn from the investigation undertaken in the research. The study results indicate that pro-active planning should always be undertaken to optimise sustainable physical infrastructure. The respondents were not sure whether or not the analysing of the cost structure of facilities management to ensure proper planning aligned with the budget is carried out. Employees were also unsure whether or not the organisational structure for facilities management is fully developed in order for facilities management to carry out its mandate. Aspects such as infrastructure maintenance, emergency and urgent acquisition, acquisition of leased properties, transfer of facilities from municipalities, disposal, facilities asset register and capitalisation of immovable assets in the facilities management strategy for ADM are not “always” carried out. Challenges included lack of prioritisation of facilities management, disability-unfriendly environment, lack of supervision, facility management concept misunderstanding, unclear roles and responsibilities, outsourcing challenges, satellite offices, lack of organisational support, having to play both strategic and operational roles, maintenance of buildings, budget constraint and a shortage of staff and equipment. Recommendations from the respondents to improve their facility management included having a facility management strategy, undertaking an extensive property audit, in-house maintenance, a facility management unit, single point entry, staff planning, more funding, procedure manuals and training.

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6. Local Government Capital Asset Management Guideline (LGCAMG)
7. National Development plan 2030
8. The International Facilities Management Association (IFMA)
9. The South African Facilities management Association (SAFMA)
10. **The New Facilities Management System Standard, (NFMSS, 201**

Appendix A: Request for permission to conduct research in your municipality (adm)

30 Hunters Road
Summerpride
East London
5200
01 August 2014

Municipal Manager
Amathole District Municipality
P.O. Box 320
EAST LONDON
5200

Dear Municipal Manager

RE: REQUEST FOR PERMISSION TO CONDUCT RESEARCH IN YOUR MUNICIPALITY (ADM)

I am Mawonga Sibefu, a student at Nelson Mandela Metropolitan University doing Master degree in Public Administration. I am currently working on my Research Project as partial fulfillment requirement of the Degree for Masters of Public Administration. My area of focus is on: **IMPLEMENTATION OF FACILITIES MANAGEMENT STRATEGY FOR AMATHOLE DISTRICT MUNICIPALITY**. In the light of the above, I request a permission to conduct a research in Amathole District Municipality on the above mentioned topic. It is worth to mention that the above mentioned topic forms part of my key functions in ADM. The institution will benefit from the contents of the research project.

Kindly be advised that information obtained from this research will be treated as strictly and confidential as possible, under no circumstances will be used for any reason other than academic purposes.

Thanking you.

Yours faithfully

Appendix B: Questionnaire for amathole district municipality officials

I am Mawonga Sibefu with a student number 205043551. I am currently doing Master's Degree in Public Administration (MPA) with the Nelson Mandela Metropolitan University and working on my Research Project (Treatise). My area of focus is Implementation of Facilities Management Strategy for Amathole District Municipality. Your assistance in the completion of this questionnaire, which will takes about 10-15 minutes to complete, will be much appreciated since it will assist the researcher in reaching the main aim and objectives of the research. Kindly be advised that information obtained from this Questionnaire will be treated as strictly confidential and under no circumstances will be used for any reason other than academic purposes. All the questions are important for various specific purposes of the study, please answer all questions. You are encouraged to be frank and honest when answering the questions please

QUESTIONNAIRE FOR AMATHOLE DISTRICT MUNICIPALITY OFFICIALS

(Master in Public Administration- MPA): Implementation of Facilities Management Strategy for Amathole District Municipality.

SECTION A: PERSONAL PROFILE

PLEASE MARK THE APPLICABLE BOX WITH AN "X"

1. AGE GROUP (IN YEARS)

1. 20-35	2. 36-45	3. 46-55	4. 56 And above

2. GENDER

1. MALE	2. FEMALE

3. HIGHEST QUALIFICATION

1. GRADE 12 (MATRIC)		2. DIPLOMA		3. DEGREE	
4. POST-GRADUATE		5. OTHER (PLEASE SPECIFY)			

4. Which of the following positions do you hold in the organization (ADM)?

1. Director	2. General Manager	3. Senior Manager
4. Unit Manager	5. Assistant Manager	Other (Please specify)

5. How long have you been employed at ADM

1. less than a Year	2. 1-5 Years	3. 6- 9 Years	4. 10-19 Years	5. 20 Years and above

6. How many personnel do you have in your Department / Unit?

1. Less than 10	2. 10- 49	3. 50- 99	4. 100- 199	5. 200 or more
None				

7. What training have you undergone in Facilities Management?

1.National Diploma	2.Bachelor's degree	3.Honour's degree	4.Master's degree	5.PhD/Dr	6.Others (please specify)

8. How many years of experience do you have in Facilities Management?

Less than a year	2. 1-5 years	3. 6-9 years	4. 10 years or more	5. None

9. What is your professional membership status?

1. None	2. South African Facilities Management Association (SAFMA)	3. British Institute of Facilities Management (BIFM)	4. Chartered Institute of Building (CIOB)	5. Other (Please specify)

SECTION B: Perceptions on Facilities Management.

In this section, please circle the most appropriate option for each statement. The following abbreviations apply: SD= strongly disagree, D= Disagree, N= Neutral, A= Agree, SA Strongly Agree

1. Do you agree that the following statements define and describe facilities management:	SD	D	N	A	SA
1.1 It is a profession that encompasses multiple disciplines to ensure functionality of the built environment.	1	2	3	4	5
1.2 It encompasses the activities in planning, designing and managing complex facilities.	1	2	3	4	5
1.3 Thirty years old and the fastest growing professional discipline in the built environment	1	2	3	4	5
1.4 In the past 30 years, Facilities Managers became Asset Managers	1	2	3	4	5
1.5 Old philosophy of maintenance of buildings.	1	2	3	4	5
1.6 Old fashioned sense of caretaking, cleaning, repairs and maintenance.	1	2	3	4	5
1.7 It is the management of buildings and their related services.	1	2	3	4	5
1.8 Creates an environment that strongly supports the primary objectives of the organization.	1	2	3	4	5
1.9 Focuses on project management since it deals with construction	1	2	3	4	5
1.10 Management of only cleaning, gardening, security services,	1	2	3	4	5

1. To what extent you agree that the following factors stimulate growth of facilities management	SD	D	N	A	SA
2.1 High cost of space	1	2	3	4	5
2.2 Information Technology	1	2	3	4	5
2.3 Employee expectations	1	2	3	4	5
2.4 Cost of mistakes	1	2	3	4	5
2.5 Global Competition	1	2	3	4	5
2.6 The knowledge of the Executive Management Committee (EMC)	1	2	3	4	5
2.7 The Noise of the Executive Mayoral Committee	1	2	3	4	5
2.8 Auditors General's report	1	2	3	4	5
2.9 Construction Industry Development Board	1	2	3	4	5
2.10 Annual Financial Statement	1	2	3	4	5
2. To what extent you agree that the following are techniques or tools that are utilized vigorously in the development of a facilities management strategy	SD	D	N	A	SA
3.1 Analysis	1	2	3	4	5
3.2 Solution	1	2	3	4	5
3.3 Implementation	1	2	3	4	5

3.	Do you agree that facilities management strategy should become an integral part of the organizations strategic and operational plans and should incorporate the following	SD	D	N	A	SA
4.1	Financial objectives	1	2	3	4	5
4.2	Goals and critical success factors	1	2	3	4	5
4.3	Customer focus strategy	1	2	3	4	5
4.4	Procurement Strategy	1	2	3	4	5
4.5	Human resource plan	1	2	3	4	5
4.6	Technical strategy	1	2	3	4	5
4.7	Business processes	1	2	3	4	5
4.8	Office accommodation strategy plan	1	2	3	4	5
4.9	Information and communication strategy	1	2	3	4	5
4.10	Capital Investment strategy plan	1	2	3	4	5
4.11	Asset Maintenance strategy plan	1	2	3	4	5
4.	To what degree do you agree with the following statements in Facilities management	SD	D	N	A	SA
5.1	Facilities Management forms part of projects and maintenance section	1	2	3	4	5
5.2	Lack of knowledge results in poor management of ADM properties	1	2	3	4	5

5.3	Unavailability of funding is the only cause of ADM properties/ infrastructure decay	1	2	3	4	5
5.4	Asset management, Facilities management and Property management are the same.	1	2	3	4	5
5.5	A Building needs to be nurtured, understood and developed to its fullest potential.	1	2	3	4	5
5.6	Facilities management is one of the sections of property management.	1	2	3	4	5
5.7	Senior personnel should be appointed to implement facilities management strategy and interpret the policy.	1	2	3	4	5
5.	To what degree are the following information Technology systems are utilised in the institution	Never	Seldom	Sometimes	Often	Always
6.1	Venus Financial System	1	2	3	4	5
6.2	Property Information Management System	1	2	3	4	5
6.3	Computerised Maintenance Management System	1	2	3	4	5
6.4	Computer Aided Facilities Management System	1	2	3	4	5

- 6. The following are the activities which are commonly performed within Facilities Management. Please indicate to what extent you are currently performing these functions. 1= Never, 2= Seldom, 3 = Sometimes, 4 = Often, 5 = Always**

7.1	<u>Financial Management</u>	Never	Seldom	Sometimes	Often	Always
7.1.1	Budget preparation	1	2	3	4	5

7.1.2 Operating costs analysis	1	2	3	4	5
7.1.3 Budget reviews	1	2	3	4	5
7.1.4 Other	1	2	3	4	5
7.2 <u>Support services</u>	Never	Seldom	Sometimes	Often	Always
7.2.1 Cleaning	1	2	3	4	5
7.2.2 Catering	1	2	3	4	5
7.2.3 Gardening	1	2	3	4	5
7.2.4 Other	1	2	3	4	5
7.3 <u>Health and Safety</u>	Never	Seldom	Sometimes	Often	Always
7.3.1 Statutory Compliance	1	2	3	4	5
7.3.2 Safety environment	1	2	3	4	5
7.3.3 Fire fighters	1	2	3	4	5
7.3.4 Other	1	2	3	4	5
7.4 <u>Real Estate/ Property management</u>	Never	Seldom	Sometimes	Often	Always
7.4.1 Condition assessment Survey	1	2	3	4	5

7.4.2 Planned maintenance	1	2	3	4	5
7.4.3 Unplanned maintenance	1	2	3	4	5
7.4.4 Building maintenance plan	1	2	3	4	5
7.4.5 Other	1	2	3	4	5
7.5 <u>Business Organisation</u>	Never	Seldom	Sometimes	Often	Always
7.5.1 Organizational Structure	1	2	3	4	5
7.5.2 Business strategy	1	2	3	4	5
7.5.3 Change management	1	2	3	4	5
7.5.4 Other	1	2	3	4	5
7.6 <u>Operations</u>	Never	Seldom	Sometimes	Often	Always
7.6.1 Contract Management	1	2	3	4	5
7.6.2 Preparation of specification	1	2	3	4	5
7.6.3 Analysis of requirements	1	2	3	4	5
7.6.4 Benchmarking	1	2	3	4	5
7.6.4 Other	1	2	3	4	5

7.7 <u>Managing services</u>	Never	Seldom	Sometimes	Often	Always
7.7.1 FM Strategic Management	1	2	3	4	5
7.7.2 Client satisfaction	1	2	3	4	5
7.7.3 Value Chain	1	2	3	4	5
7.7.4 Research Analysis	1	2	3	4	5
7.7.5 Other	1	2	3	4	5
7.8 <u>Security</u>	Never	Seldom	Sometimes	Often	Always
7.8.1 Security Systems	1	2	3	4	5
7.8.2 Security Management	1	2	3	4	5
7.8.3 Security risk management	1	2	3	4	5
7.8.4 Other	1	2	3	4	5

SECTION C

Please briefly explain the following in terms of Facilities Management in ADM

7. What are the main benefits derived from Facilities Management in ADM

8. What are the major challenges facing ADM Facilities Managers?

9.1 In your view, is Facilities Management well managed? Please support your statement with suggestions.

10. How do you think these challenges can be solved?

**11. Do you think centralization of Budget for Facilities Management is the solution?
Please motivate.**

12. Any further comment regarding Facilities management in ADM.

THANK YOU FOR YOUR KIND COOPERATION IN ANSWERING THIS SURVEY.

Appendix C: Letter from the language practitioner



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TO WHOM IT MAY CONCERN

I, Michele van Niekerk, declare that I have done the language editing for the thesis of:

MAWONGA SIBEFU (S205043551)

entitled:

IMPLEMENTATION OF FACILITIES MANAGEMENT STRATEGY FOR AMATHOLE DISTRICT MUNICIPALITY

Submitted in fulfilment of the requirements for the degree of Masters of Public Administration in the Faculty of Arts at the Nelson Mandela University.

I cannot guarantee that the changes that I have suggested have been implemented nor do I take responsibility for any other changes or additions that may have been made subsequently.

Any other queries related to the language and technical editing of this treatise may be directed to me at 076 481 8341.

Signed at Port Elizabeth on 16 July 2018

Mrs M van Niekerk