UNIVERSITY OF LUSAKA

SCHOOL OF TECHNOLOGY AND SOCIAL SCIENCES

AN INVESTIGATION INTO THE CHALLENGES FACED BY THE LUSAKA CITY COUNCIL IN THE PROVISION OF SANITATION SERVICES AT SOWETO MARKET.

A DISSERTATION

Submitted to The School of Technology and Social Sciences in Partial Fulfillment of the Requirements for the award of a Bachelor of Science Degree in Public Administration.

BY

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AUTHOR'S DECLARATION

I, **Mutinta Kolala**, declare that this dissertation entitled:

"An Investigation on the Challenges Faced by the Lusaka City Council in the Provision of Sanitation Services at Soweto Market"

is my own original work and has not been submitted for a degree in any other university. All sources used in this work have been duly acknowledged through proper referencing in accordance with academic standards.

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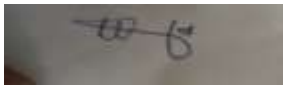

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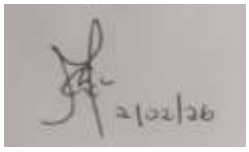

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ABSTRACT

Sanitation service delivery in high-density urban markets remains a major challenge for local authorities in Zambia, posing serious risks to public health, environmental safety, and economic activity. Despite the statutory mandate of the Lusaka City Council (LCC), sanitation conditions at Soweto Market one of the largest and busiest trading centres in Lusaka remain poor, with recurring outbreaks of waste accumulation, inadequate sanitation facilities, and blocked drainage systems. This study investigated the challenges faced by the Lusaka City Council in the provision of sanitation services at Soweto Market. The study was guided by three objectives: to examine the current state of sanitation services, to identify the institutional, financial, and infrastructural challenges affecting service delivery, and to assess the effectiveness of existing sanitation strategies while exploring possible interventions for improvement. A qualitative research design was employed, involving 72 participants selected through purposive and snowball sampling, including LCC officials, sanitation workers, traders, customers, market managers, and representatives of non-governmental organisations. Data were collected using in-depth interviews, focus group discussions, and non-participant observation, and analysed thematically. The findings revealed that sanitation services at Soweto Market are inadequate, characterised by irregular waste collection, insufficient and poorly maintained public toilets, and deteriorated drainage infrastructure. These challenges are largely attributed to institutional inefficiencies within the Council, inadequate funding, weak coordination mechanisms, and poor hygiene practices among some market users. The study concludes that improving sanitation at Soweto Market requires strengthened institutional coordination within LCC, sustainable financing mechanisms, and increased stakeholder engagement. The study recommends the adoption of participatory governance approaches, exploration of public–private partnerships, and targeted investment in critical sanitation infrastructure, particularly drainage systems and communal toilets.

Keywords: Sanitation, Lusaka City Council, Soweto Market, Urban Governance, Public Health, Waste Management.

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Dedication

I dedicate this dissertation to my family who have been the pillars of my academic life through their unconditional love, support, and sacrifice. To my parents, I would like to thank you so much because you taught me the wisdom of hard work, perseverance, and integrity; these are what have helped me to go through the toughest of times. Your constant support to me, brothers and sisters, to everyone in my extended family is the reason why I did not feel like I was all by myself when I walked this path. My friends and loved ones, I want to thank you because you have believed in my potentials, applauded my small achievements and encouraged me to continue when the path seemed like a challenge. This has been achieved by each of you who stood by my side, had my spirit behind, and reminded me the strength of love, faith, and perseverance.

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CHAPTER ONE: INTRODUCTION

1.0 Introduction

Sanitation has become a growing issue of concern in most of the fast developing urban areas, where population growth and unofficial economic practices often surpass the ability of local governments to provide reasonable services. Although efforts are underway worldwide to address the issue of access, a relatively large part of the global population still lacks access to a safely managed sanitation system, and the implications of this issue on societal health and sustainable development are considerable (WHO & UNICEF, 2023). The public markets are especially sensitive environments because they produce high amounts of waste within a single day and are dependent on systems that tend to be either insufficient or run-down (Satterthwaite, 2020). This is the case with the Soweto Market in Lusaka, Zambia. Thousands of traders and customers buy and sell products every single day but the market still faces issues like clogged drainage and inconsistent waste disposal, a lack of toilet stalls and functional ones, and others (Phiri et al., 2022). These circumstances expose users of the market and neighboring communities to health hazards that are avoidable, such as frequent occurrence of waterborne diseases like cholera, and has been a public health issue in Lusaka in the recent years (Ministry of Health Zambia, 2023). Other than health effects, poor sanitation also affects livelihoods by affecting trading activities and also reducing the overall functionality of the market. Despite the Lusaka City Council being a body that is required to control the sanitation services, it is usually limited by the lack of financial resources, poor institutional frameworks, and deteriorated infrastructure (Mumba & Phiri, 2021). It is against this background that the current research paper discusses the issues surrounding the Lusaka City Council in delivering sanitation services at Soweto Market based on the perspectives of stakeholders who are critical in the research to develop feasible solutions that may help in increasing service delivery, protecting the well-being of the people as well as promoting sustainable city development.

1.1 Background of the Study

Sanitation is a major concern in preventing civic health, supporting the urban development, and maintaining the essential human dignity. Although the world has resolved to enhance access, safe sanitation has remained elusive to a large number of the world population. Current estimates

how that over 3.5 b billion individuals are still without sanitation systems that can safely handle human waste and minimise pollution of the environment (WHO and UNICEF, 2023). In regions where sanitation services are poor, outbreaks of preventable diseases such as cholera, diarrhoea and typhoid are widespread further straining the already stretched health systems (Bartram, 2021). This is particularly susceptible to the public markets. They pack high populations of people and perishable commodities in small areas and produce vast volumes of wastes on daily basis. According to Satterthwaite and Mitlin (2020), responding to sanitation in such set-ups takes than simply physical infrastructure, effective management, and solid financing. In this regard, sanitation issues illustrate larger governance and justice problems in urban systems.

These are some of the broad problems that are reflected in Zambia especially in its booming urban centres. The population of Lusaka has been growing steadily over time, with the number of people serving the city growing to over 3.5 million in 2022, as compared to 1.7 million in 2010 (Central Statistical Office, 2022). This high growth has put a lot of pressure on the city facilities particularly sanitation facilities which have failed to increase accordingly. The outbreaks of cholera in the city were not the first, such as the 2022-2023 outbreak closely related to the improper waste management and drainage systems in the highly populated residential neighbourhoods (Ministry of Health Zambia, 2023). These challenges are well depicted in Soweto Market which is the largest trading centre in the country. The market is serving thousands of traders and customers per day, but the level of sanitation is extremely poor, with inconsistent waste collection, insufficient facilities to urinate, and overcrowded drainage systems (Phiri et al., 2022). These circumstances undermine hygiene and reduce the trust of the population in the municipality services.

Sanitation service provision in Lusaka is the city council of Lusaka (LCC). Nonetheless, there is a number of studies showing that the Council is facing a number of long-term constraints, which hamper its ability to deliver this mandate. The factors that have been found to influence the continuity and quality of sanitation services include financial constraints, lack of coordination between departments, and the lack of skilled personnel (Mumba and Phiri, 2021). Though the policy frameworks like the National Urban and Peri-Urban Sanitation Strategy (2017-2030) are clear on the way sanitation should be improved, the practice has been uneven in many cases because of the lack of funding and disjointed governance arrangements (Mwale, 2020). As a

result, there still exists a visible disparity between policy intentions and the realities on the ground, especially to traders and customers working in Soweto Market.

Poor sanitation within Soweto Market has far-reaching effects caused by concerns on the overall health of the people. Ineffective drainage systems and uncollected waste impede the trading process, risk food contamination and deter consumer involvement, which impact livelihoods and the city economy in general (Mulenga & Mwanza, 2022). The effect on the environment is also manifested in the fact that damaged drains add to the flooding of cities and waste that has not been disposed of correctly also pollutes the water sources around. All these interconnected effects show that sanitation is not a single phenomenon but it cuts across health, economic productivity, environmental sustainability, and urban governance. It is against this background that the current research is framed, whereby the issue of the poor sanitation provision at Soweto Market is sought to be explained by reasons why there are still perceived poor health conditions in the area as well as the lack of protection of livelihoods and sustainable urbanization despite the existence of institutional mandates and policy frameworks.

1.2 Statement of the Problem

The issue of sanitation in urban markets has remained an issue of concern in both international and national levels due to their direct consequences on the health, livelihood, and the administration of people in urban areas. Within the context of the Zambian society, several works have been done to study the sanitation situation in peri-urban settlements and residential localities, with several researchers identifying weak institutional coordination, poor infrastructure, and poor financial conditions as the key factors contributing to the recurrence of cholera outbreaks (Mumba and Phiri, 2021; Mubanga, 2020). Despite the significance of the insights that are given in these studies, they mostly dwell on household-, or community-based sanitation and do not give much arguments regarding sanitation conditions in large, high-density trading spaces. Consequently, particular issues of dealing with sanitation in large city markets where waste production is elevated, and human activity is strenuous on daily basis, are not sufficiently researched.

The biggest trading centre in Zambia which is Soweto Market clearly illustrates the existence of this gap. Sanitation-related health hazards such as outbreaks of cholera have often been linked to

the market, so the body of empirical research that analyzes the impact of institutional, financial, and infrastructural limitations on the provision of sanitation services by the Lusaka City Council is not yet well understood in this context (Ministry of Health Zambia, 2023). Although the national policy frameworks, including the National Urban and Peri-Urban Sanitation Strategy (2017-2030), also acknowledge the significance of improved sanitation, not much is known about how these policies are implemented in markets in reality. With the particular case of Soweto Market, this paper aims to fill this gap by exploring the predicament of the Lusaka City Council to offer sanitation services within a complicated and economically important urban environment. This way, the study will add context-less information that can be used both to make policies and practices, especially regarding how the sanitation management can be enhanced in urban markets that are both cost-efficient and very susceptible.

1.3 Research Objectives

1.3.1 General objective

To investigate the challenges faced by the Lusaka City Council in the provision of sanitation services at Soweto Market.

1.3. 2 Specific Objectives

i. To examine the current state of sanitation services provided by the Lusaka City Council at Soweto Market.

ii. To identify the institutional, financial, and infrastructural challenges affecting the Lusaka City Council in the provision of sanitation services at Soweto Market.

iii. To assess the effectiveness of existing sanitation strategies and explore possible interventions for improving service delivery at Soweto Market.

1.3.2 Research Questions

i. What is the current state of sanitation services provided by the Lusaka City Council at Soweto Market?

ii. What institutional, financial, and infrastructural challenges affect the Lusaka City Council in providing sanitation services at Soweto Market?

iii. How effective are the existing sanitation strategies, and what possible interventions can improve service delivery at Soweto Market?

1.4 Significance of the Study

This research paper adds intellectual information as well as solutions in the field of sanitation management in cities. Academically, it builds the literature that is already available by directly examining the dilemma that the Lusaka City Council is experiencing in the delivery of sanitation services at Soweto Market, which has not been adequately researched despite its economic and social significance. The results would fill the gap in the body of knowledge on the influence of institutional, financial, and infrastructural constraints on the provision of sanitation services in high-density urban markets. In practice, the research offers evidence-based insights to policymakers and local governments to facilitate the development of specific policies to enhance the provision of sanitation services. In the case of the Lusaka City Council, the recommendations can assist the organization to enhance the capacity to operate, increase the stakeholder involvement, and consequently improve accountability in service delivery.

1.5 Delimitation of the Study

The research is restricted to examining the problems that the Lusaka City Council has encountered when delivering sanitation services in Soweto Market of Lusaka District. Soweto Market has been chosen since it is the biggest and busiest trading centre in Zambia, where there is a high population of traders and consumers, therefore, it poses the most urgent sanitation challenges when compared to the rest of the markets. The paper focuses on the institutional, financial, and infrastructural conditioning aspects that influence the capacity of the Council to offer efficient sanitation services, but not other services provided by the local authority like security or trading licences. Moreover, the research is limited to the views of the officials of Lusaka City Council, traders and customers of Soweto Market, and leaves out other parties, including the private waste management firms and policymakers operating at the national level. In this way, the study will be able to cover only the depth of analysis on the selected case but at a manageable scope within the resources and time available.

1.6 Limitations of the Study

The research was limited in a number of ways which influenced the breadth and extent of the results. To begin with, a time constraint restricted the scope of data collection since the study was performed within a limited academic time. Second, lack of finances curtailed the scope of carrying out a broader survey or a comparative case study of other markets in Lusaka. Third,

there were issues of accessibility because certain sections of the Soweto Market were crowded and in reachable locations making it hard to conduct thorough observation of sanitation practices. Fourth, a few respondents did not cooperate, especially busy traders who were unwilling to engage in interviews because of time constraint that existed in their daily business operations. Fifth, there were barriers in the institutions as it was difficult to access the official documents and operational data of the Lusaka City Council because of bureaucracies. In spite of these restrictions, the research produced plausible results which provide good insights into the problem of delivery of sanitation services at Soweto Market.

1.7 Definition of Key Terms

Challenges: This is the problems, hardships or challenges that prevent the Lusaka City Council to offer sanitation services efficiently; such as lack of finances or infrastructural lacks and institutional constraints.

Effectiveness: To what extent do sanitation services support the desired goals of cleanliness, disease prevention, and satisfaction by the populace, in terms of the effectiveness of resources and strategies put into practice.

Institutional Capacity: This is the capacity of the Lusaka City Council to plan, organize, coordinate and execute sanitation services such as human management, financial and technical management.

Infrastructure: The physical and organizational structures necessary to provide sanitation services such as waste collection systems, drainage networks, public toilets as well as supporting facilities.

Perceptions: The thoughts, views and feelings of the stakeholders (municipal officials and the users of the services) toward the quality and sufficiency of the sanitation services.

Sanitation: The handling of human waste, wastewater and solid waste to ensure healthy environments, prevent environmental pollution and provide healthy and safe hygienic urban environments.

Service Delivery: The process and mechanisms by which sanitation services are delivered by the

Lusaka City Council, such as planning, implementation, monitoring and maintenance of the facilities and the programs.

Stakeholders: These are all individuals or groups of individuals who are either directly or indirectly engaged into or affected by the provision of sanitation services; they include municipal officials, community members and service users.

Urban Governance: The institution, policy and systems by which the municipal authorities operate, control and supervise the provision of the urban services such as sanitation to attain a sustainable development and a population health.

CHAPTER TWO: LITERATURE REVIEW

2.0 Introduction

The present chapter provides a review of the available academic literature relevant to the research of the problem of sanitation service delivery, especially focusing on the problems that local authorities face. The aim of the review is to put the current research in the framework of the larger range of scholarly and policy-related literature, thus establishing what has already been explored by previous researchers and where there are still knowledge gaps. The chapter does not just summarise the literature but relies on the studies done to come up with the context and reason behind an examination of the sanitation service delivery in Soweto Market.

These are discussed in a progressive manner starting with a global approach to sanitation, then to the African regional approach and lastly to Zambia. In these analytical levels, the review pays attention to three repetitive themes in the sanitation literature, these include institutional, financial and infrastructural challenges. Further, the chapter provides the context of the study in terms of theories, namely, Public Service Delivery Theory and Institutional Theory, which explain the organisational/ structural factors that govern the delivery of sanitation services under the Lusaka City Council. A conceptual model is described to show how the main study variables are related with each other. The chapter also ends by highlighting the gap in research that the current study aims at filling and explaining its role in the existing amount of knowledge about the topic of urban sanitation management.

2.1 Overview of the Challenges of Sanitation Service Delivery

The provision of sanitation services is among the most urgent issues of urban development in the world because it directly affects the health of the population, the level of environmental quality and socioeconomic development. According to the World Health Organization (2022), more than 3.6 billion individuals in the world are still deprived of safely managed sanitation services, which makes poor sanitation one of the consistent causes of preventable morbidity and untimely deaths. The growing urbanization in the developing world, weak policy frameworks, and limited local government capacity makes this problem more difficult (United Nations, 2021). In African cities, sanitation, instead of being a technical problem, has become a complex governance problem, which demonstrates the efficiency of the institutions, financing tools, and infrastructural

investment (UN-Habitat, 2020). This is the case in Zambia, where the inner city centers like Soweto Market still struggle with waste management, lack of toilets, and drainage infrastructure, even though the market is one of the main economic factors in the region (Mulenga & Banda, 2021).

It has been shown in literature that the problems of sanitation are intricate and interdependent. The lack of proper service delivery is compromised by institutional pressures, including poor by-law implementation, overlapping of mandates among agencies, and inadequate technical capacity (Karanja, 2019). These institutional weaknesses are directly related to financial constraints, as more often than not, municipal councils are limited by a lack of revenue base and over-dependence on central government or donor funding (Mudzi & Chirwa, 2020). The third important determinant is infrastructure, which is often poorly developed or neglected, leading to drains being clogged, trash overflowing, and availability of cheap and clean public toilets being scarce (World Bank, 2020). Researchers argue that the mentioned factors are in a cyclic relationship: institutional weaknesses prevent the mobilisation and use of funds; financial deficits limit investment in infrastructure; and the decline of infrastructure strengthens institutional inefficiency (Guzha, 2021). This interdependence explains why small pies are rarely proposed to be effective in a long term

The sustainability of sanitation programs has been questioned because although there are several interventions, such as community based waste management initiatives, public-to-privately owned sanitation projects, and donor-funded projects and programs, there is still doubt about their sustainability (Kibwage & Onyango, 2019). A large number of projects focus on short-term benefits, including regular clean-ups, without seeking to deal with systemic obstacles in governance and funding (Satterthwaite, 2020). In African cities that are fast urbanising, the population is always increasing faster than the capacity of the municipalities, thereby increasing the backlog of sanitation (UNICEF, 2021). This gap between policy hopes and the reality on the service delivery highlights why targeted research investigating how local governments, like the Lusaka City Council, can enforce institutional patterns, organise resources and deliver long term sanitation services in markets like Soweto is important. It is on this ground that the current research finds its place, intending to make a contribution to the academic discussion as well as practice solutions.

2.2 Global Perspective on Sanitation Service Delivery

Sanitation is still acknowledged to have one of the highest priority in global development due to its close association with the issue of public health, environmental protection, and socio-economic results in the general. Although global efforts have persisted, there is still unequal access to safely managed sanitation in the world. According to the World Health Organization (2022), over 3.6 billion individuals still do not have access to sanitation services which are effective in the management of human waste, and this puts large populations at risk of preventable disease and early mortality. Besides health effects, poor sanitation is also expensive. United Nations (2021) observes that the economic cost of productivity losses, increased healthcare spending, and environmental harm linked with bad sanitation has a significant financial implication on the economies of the countries each year. Although several of the high-income states have progressed into universal sanitation coverage many low- and middle-income nations still face service gaps, which are often associated with poor government systems, inadequate funding, and insufficient infrastructure.

In a general international context, the available literature indicates that the provision of sanitation services is influenced by a complex interaction of numerous influencing factors, such as high rates of urbanization, population pressure, administrative organization, and technology selection (Montgomery et al., 2018). Various approaches have been embraced by countries to overcome these challenges, based on massive centralized sewerage loops to decentralized and community-based systems, and even on the basis of public- private alliances. However, researchers claim that the sustainability of most of such models is questionable in the long-term (Mara, 2017). Urban sprawl in fast-moving urban centers, especially in regions of Asia and Latin America, has often surpassed the amount of municipal capacity, leaving city authorities with persistent sanitary overburdens (World Bank, 2020). Conversely, in developed countries, a growing emphasis has been on enhancing the sustainability of the environment, resource recovery, and climate-related risks resiliency (OECD, 2019). Collectively, the world-wide experiences present developmental and structural gaps and can be valuable in learning what is at stake in the delivery of sanitation services in Africa and, more so, in Zambia.

2.2.1 The Current State of Sanitation Services: A Global View

The sanitation situation in the world is dominated by sharp differences between developed and developing areas. In most of the European and North American countries, sanitation facilities are available to almost everybody. World Health Organization (2022) states that coverage in these areas is over 95 percent in various countries, which indicates long-term investment in infrastructure and good systems of governance. On the other hand, vast regions of South Asia and Latin America still have uneven access to sanitation, with the availability still strictly linked to the level of income, urban-rural placement, and institution-population capacity. Indicatively, whereas Germany and Canada have realized almost universal coverage, millions of households in India continue to be using poor sanitation amenities despite widespread national programmes (Patel, 2020). Such differences are mainly because of difference in historical infrastructural development, quality of governance and access to financial resources to maintain the sanitation systems in the long run.

In high-income nations, access to sanitation is becoming merely one of its definitions, whereas quality and long-term sustainability are increasingly becoming significant. The OECD (2019) has also stated that some countries like Japan and South Korea have spent a lot of money in high-level wastewater treatment and reuse technologies, which have enhanced the safety of the population as well as environmental protection. Comparatively, a few middle-income Latin American countries such as Peru have increased their toilet coverage but continue to fall behind in wastewater treatment capacity leading to ongoing water pollution issues (Cisneros, 2020). These divergent experiences provide an indication that infrastructure coverage cannot be fully used to measure the performance of sanitation because maintenance, the quality of treatment, and the environmental impact are important aspects.

The situation encountered by the fast urbanizing Asian countries further explains the world issues of sanitation systems. In Indonesia, the rapid urbanization of cities tends to surpass the working condition of the available infrastructure, and many citizens rely on the use of unsafe or unofficial systems (Putri, 2019). In comparison, Singapore has managed to match urbanization with the constant investment into modern sewerage networks, which is also facilitated by the institutional coordination and technological advancement (Tan, 2019). This difference between the cases puts into perspective the critical role of institutional capacity where the disintegrated

governance and fiscal insufficiency are more likely to affect the results of sanitation even where extension of infrastructure is made a priority.

The rural-urban disparities are still characteristic of sanitation in the world. In Mexico, rural and indigenous groups still have an unequal access to better sanitation, and in certain locations, the practice of open defecation still exists (Ramírez, 2020). The progress in urban centers such as Mexico City has been higher in coverage but this has been accompanied by strain of infrastructure and waste water management. This can be traced to the case of India where a rural population experiences the lack of sanitation even at the national level of the country, and urban centers face problems with maintenance and safe disposal of waste (Sharma, 2021). These trends show that sanitation disparities are not universal but also very much entrenched in the countries.

Weaknesses in the sanitation systems of various contexts were further revealed with regard to the COVID-19 pandemic. In Bangladesh, the pandemic decreased the ability to control the spread of the disease because of the use of common sanitation facilities in informal settlements (Islam, 2022). On the other hand, nations that had developed sanitation, like Australia used wastewater surveillance to track COVID-19 spread, which showed how well-developed sanitation systems can make the wider population healthier (Ahmed, 2021). These experiences highlight the duality of sanitation systems as something that makes people vulnerable and something that can provide advantages to the general health of the people in times of crisis.

The concept of equity and inclusivity has been put into the center of the sanitation discussions worldwide. South Asian research suggests that women and girls are still facing problems with safe and privacy in sanitation facilities, especially at menstruation, which has health, dignity, and social engagement implications (Sommer, 2020). Conversely, countries like Sweden and Finland have adopted gender sensitive sanitation policy, which is more focus on inclusivity and user dignity (Johansson, 2019). These disparities are indicative of the larger differences in the culture, priorities in policies, distribution of resources and support the perception of sanitation as not only a technical problem but also a social justice and human rights concern.

Technological decisions are also ones that influence sanitation in the world. Simplified sewerage systems are actively encouraged in Brazil as economical solutions to increase access to sewerage in the peri-urban regions, but the issue of maintaining the system and its sustainability in the long

term remains (da Silva, 2020). In comparison, Japan spends on the eco-toilet and wastewater recycling, which indicates the transition to the use of sanitation as an element of a more generalized circular-economy approach (Yamamoto, 2021). These conflicting approaches imply that whereas cheaper technologies can easily expand access, long-term stability will require institutional backing and investment.

There is a growing environmental concern that is becoming part of sanitation policy and practice. River pollution in China has raised a major concern, and mass investments in wastewater treatment plants have been done in a large scale, whereas in some locations, the effectiveness is still constrained due to enforcement and regulatory issues (Li, 2021). In the meantime, the Netherlands has developed a unified strategy, according to which wastewater is a source of energy and nutrients and is supplemented by appropriate regulatory frameworks and long-term planning (van Leeuwen, 2020). These cases demonstrate how the quality of governance and the level of enforcing policies influence the result of environmental management in sanitation.

Financing models are crucial in ascertaining whether sanitation services are sustainable or not. Sanitation systems in high-income nations, like the United States, are mostly funded by a combination of taxes and user charges, which makes funding and maintenance of the systems more predictable (Murray, 2019). On the other hand, even in the low-income nations such as Cambodia, donor funds remain a major contributor to sanitation projects, which brings into question the long-term viability of these projects when the external aid stops (Chan, 2020). This dependency underscores the impact that financial structures have on the service coverage as well as the resilience of the systems.

On the whole, the situation with sanitation services in the world reflects both the development and systematic inequality. Europe, North America, and East Asia have high-income areas that illustrate how effective institutions and stable funding can contribute to near-universality; however, most low- and middle-income areas are faced with issues of coverage, quality and vulnerability of services. Placing sanitation effects as Satterthwaite (2020) posits would also be caused not by infrastructure, but by governance structures, financing, technology decisions, or socio-cultural processes. The experiences gained globally provide the needed lessons to the sanitation issues in other settings as in Africa and Zambia where similar structural limitations still affect the service delivery.

2.2.2 Institutional, Financial, and Infrastructural Challenges in Global Sanitation

Globally, the institutional arrangements underpinning sanitation service delivery vary widely, shaping both effectiveness and sustainability. According to Koppenjan and Enserink (2021), countries with decentralized governance structures, such as India, often experience challenges of coordination between central and local governments, leading to delays in implementation. However, this contrasts with the case of Singapore, where strong centralized institutional oversight has enabled consistent investments in sanitation infrastructure and effective monitoring (Tan, 2019). The difference arises from the degree of institutional autonomy and capacity: while decentralization can bring services closer to communities, it risks fragmentation without adequate coordination frameworks.

Institutional weaknesses are further evident in countries where overlapping mandates blur accountability. For instance, in Nigeria, both local councils and federal agencies claim responsibility for sanitation, resulting in duplication of roles and inefficiency (Ademola, 2020). By contrast, Rwanda's institutional model, which assigns clear responsibilities to local government structures while maintaining strong national oversight, has led to substantial improvements in sanitation coverage (Mukamana, 2021). These contrasting outcomes suggest that clarity of roles and responsibilities is as important as resource availability in shaping the institutional landscape of sanitation services.

The financial challenges of sanitation provision remain profound, especially in low- and middle-income countries. According to the World Bank (2020), Sub-Saharan Africa faces an annual sanitation financing gap of billions of dollars, with many governments allocating less than 0.5% of GDP to the sector. In contrast, Chile has successfully leveraged public–private partnerships to ensure universal sanitation coverage, showing that innovative financing models can help overcome fiscal limitations (Vergara, 2022). The variance reflects differences in fiscal discipline, investment priorities, and the ability to attract private sector participation.

However, reliance on private financing is not without risks. For example, in the Philippines, private sector-led sanitation projects in Metro Manila initially improved service coverage but later became unaffordable for low-income households due to rising tariffs (Bautista, 2021). Conversely, in Ethiopia, heavy donor dependency has raised concerns about sustainability once external support is withdrawn (Bekele, 2020). These contrasting cases illustrate a central

dilemma: while private financing can enhance efficiency, without equity safeguards it may exclude vulnerable populations, whereas donor reliance risks fragility when aid declines.

Infrastructural challenges also remain a dominant concern globally. According to UN-Habitat (2020), in cities such as Nairobi and Dhaka, rapid population growth has overwhelmed existing sewerage systems, resulting in frequent blockages and waste overflows. In contrast, Tokyo has invested heavily in advanced sewerage and wastewater treatment systems, ensuring that sanitation infrastructure remains resilient even under pressure from dense urban populations (Yamamoto, 2021). The difference arises from long-term infrastructure planning and consistent reinvestment, which are often lacking in low-income contexts.

The quality and maintenance of infrastructure also vary greatly. In South Africa, existing sanitation infrastructure is extensive, yet maintenance backlogs and mismanagement have led to service interruptions and failures (Khosa, 2019). On the other hand, in Germany, robust maintenance systems and continuous upgrades have ensured reliable service delivery (Schmidt, 2020). These contrasts highlight that infrastructure investment alone is insufficient; ongoing maintenance and institutional accountability are critical for sustainability.

Comparing financial sustainability across regions reveals further disparities. According to Cronk et al. (2021), Latin American countries such as Brazil have attempted to integrate sanitation into broader urban development programs, but corruption and inefficiency have undermined outcomes. In contrast, Vietnam has combined state-led investment with community contributions, leading to measurable improvements in rural and urban sanitation coverage (Nguyen, 2021). The divergent results point to governance quality and political will as mediating factors in the financial sustainability of sanitation initiatives.

Technological disparities further reinforce infrastructural challenges. For example, in Bangladesh, the widespread use of low-cost pit latrines has provided short-term coverage but created long-term environmental risks due to groundwater contamination (Haque, 2020). Conversely, in Sweden, innovations in ecological sanitation and wastewater recycling have transformed sanitation into a resource recovery system (Johansson, 2019). These comparisons show how economic resources and technological innovation influence the choice of sanitation models, with significant implications for sustainability and resilience.

Institutional performance also determines how inclusive sanitation services are. In India, the Swachh Bharat Mission expanded access to toilets, but several studies found challenges in usage and sustainability due to weak behavior change initiatives and institutional follow-up (Patel, 2020). In contrast, in South Korea, sanitation expansion has been accompanied by robust hygiene education and institutional monitoring, ensuring higher long-term effectiveness (Lee, 2019). The difference arises not only from infrastructure provision but from institutional capacity to embed sanitation in social and cultural systems.

Finally, global evidence demonstrates that institutional, financial, and infrastructural challenges are deeply interconnected rather than independent. According to Blackett et al. (2021), weak institutions often result in poor financial management, while inadequate financing limits infrastructure expansion and maintenance. For instance, in Ghana, underfunded municipal structures struggle to manage sanitation infrastructure effectively, leading to recurrent service failures (Mensah, 2022). By contrast, in Canada, strong institutional governance supports sustainable financing and infrastructure resilience (Murray, 2019). These cases confirm that improving sanitation requires an integrated approach that simultaneously strengthens institutions, secures financing, and invests in infrastructure.

2.2.3 Institutional, Financial, and Infrastructural Challenges in Global Sanitation

There is a strong geographical dispersion of institutional structures that enable the delivery of sanitation services, and this decisive effect of efficacy and long-term sustainability is exerted. In those countries which have a decentralized system of governance, the coordination between the national governments and the sub-national ones is often an issue. As an example, Koppenjan and Enserink (2021) note that in India, duplication of duty among the government levels has at some point delayed the implementation and undermined accountability processes. This empirical finding is quite different as compared to the Singaporean case, where strong central control has supported a steady investment in sanitation infrastructure and the efficient functionality of the systems of monitoring (Tan, 2019). Although decentralization has the advantage of increasing the decision-making distance to the local populations, the mentioned examples shed light on the possible disintegration in case coordination structures and institutional capacity is still wanting.

The clearness of institutional mandates is of special concern when the responsibilities towards the sanitation are either shared or poorly-defined. Nigeria has shared responsibilities between the

local councils and federal agencies and usually leads to duplication of roles with sub-optimal resource use (Ademola, 2020). On the other hand, the institutional buildings in Rwanda have given the local governance entities specific roles, with a heavy national oversight; a setup that has brought in apparent success with respect to sanitation coverage (Mukumana, 2021). The comparison of these results shows that clearly worded lines of accountability and responsibility are as essential as the availability of resources shaping sanitation performance.

The most common challenge to the success of sanitation provision is financial constraints, particularly in low- and middle-income environments. According to the estimates of the World Bank (2020), Sub-Saharan Africa is facing the problem of billions of dollars of shortages in sanitation financing annually, and the proportion of the national budgets devoted by most governments to this area is truly appallingly small. Alternatively, Chile has used public-private collaboration to reach more people and increase its coverage and service availability, thus showing how a different funding structure can help overcome fiscal constraints (Vergara, 2022). These differences indicate difference in fiscal management, investment focus and government ability to attract and control the involvement of the private sector.

At the same time, depending on personal or other sources of financing presents its own problems. In the Philippines, early sanitation efforts by the private sector increased in Metro Manila; but after that, tariff hikes made the services unaffordable to some low-income households (Bautista, 2021). In Ethiopia, the high reliance on donor financing has resulted in the emergence of sustainability issues of the benefits of the sanitation when the external assistance is reduced (Bekele, 2020). These incidences show a classic conundrum; individual investment can be more efficient and comprehensive but may miss vulnerable populations who may not have proper protection of the same, whereas dependence on donors may interrupt the sustainability in the long run.

Sanitation services are still hindered by infrastructural challenges in every part of the world especially in the fast growing urban centres. According to UN habitat (2020) cities like Nairobi and Dhaka have had cases of sewer blockage and waste overflow since the population is growing faster than the infrastructure. On the other hand, Tokyo has been investing in sophisticated sewerage and wastewater treatment systems, which allowed the sanitation infrastructure to be operational in the situations of increased urban pressures (Yamamoto, 2021). Their differences

highlight the significance of long-term planning and long-term reinvestment- activities that are often limited in low-income settings.

In addition to expansion, service reliability also depends on the quality of maintenance significantly. The lack of a sufficient rate of maintenance backlog and management shortages in South Africa underlies the high level of service disruptions in the country, compromising the existence of extensive sanitation infrastructure (Khosa, 2019). In comparison, the emphasis of Germany on maintenance and constant upgrades of the systems have resulted in reliable sanitation services over time (Schmidt, 2020). These conflicting experiences indicate that the construction of infrastructure is not enough but should be strengthened by an effective institutional framework to ensure maintenance and responsibility.

Comparisons in the region also show that financial sustainability of sanitation systems varies. Corruption and inefficiency have impeded the implementation of sanitation as an element of wider urban development programs in some regions of Latin America, such as Brazil, and thus reduced their effectiveness (Cronk et al., 2021). Contrastingly, Vietnam has incorporated both state-based investment and community investments, which have led to quantifiable rural and urban coverage (Nguyen, 2021). The unequal results are given as an indication that quality of governance and political commitment is central in the context of whether sanitation investments will lead to sustained improvements.

The technological decisions also have significant impacts on the infrastructural performance in the countries. In Bangladesh, the extensive use of low-cost pit latrine has expanded the short-term access but also experienced a concern on the groundwater contamination and a permanent environmental risk (Haque, 2020). In comparison, the investment of ecological sanitation and recycling of wastewater in Sweden has re-homogenized the role of sanitation in a wider resource recovery plan (Johansson, 2019). These opposite strategies illustrate the role of economic potential and technology development in developing sustainable models of sanitation.

Sanitation service inclusivity is also dictated by institutional performance. India, e.g., the Swachh Bharat Mission programs had a significant effect on the coverage of toilets; however, according to multiple studies, it continued to face the same problems with utilization and sustainability in part due to ineffective behavior-change programs and institutional follow-up

(Patel, 2020). Compared to that, the sanitation growth has been supported by strong hygiene education and ongoing institutional surveillance in South Korea, which have more stable long-term effects (Lee, 2019). Such instances support the fact that the success of sanitation depends not only on infrastructure but also on the power of institutions to affect the social and behavioral practice.

On the whole, the experience of sanitation in the world shows that institutional, financial, and infrastructural problems are not separate or independent. According to Blackett et al. (2021), poor financial management is frequently triggered by the lack of institutional capacity, whereas infrastructure development and maintenance are constrained by limited funding. As an example, Ghana has not been able to address the problem of sanitation infrastructure using underfunded municipal structures, which has led to frequent service failures (Mensah, 2022). Canada, on the contrary, represents a strong day in the sun of institutional government in preventing sustainable funding and strong infrastructure networks (Murray, 2019). These international experiences justify the need to have comprehensive strategies that not only empower institutions but also provide sufficient funding and invest in suitable infrastructure.

2.2.4 Effectiveness of Sanitation Strategies and Possible Interventions at Global Level

The sanitation policies embraced in various regions of the globe have not generated uniform outcomes which are mostly determined by the political systems, economies and the societies. In certain instances, large-scale programs that were initiated by the government have resulted in the rapid access improvements. As an example, the Swachh Bharat Mission in India has been very successful in raising the number of toilets in a relatively brief time but a number of studies indicate difficulties with long-term and long-term behavioral change (Mara, 2019). Contrarily, the sanitation strategy in Japan involves both the high-tech wastewater technology and high levels of regulatory control and ongoing education of people, which leads to universal coverage and a greater focus on sustainability (Yamamoto, 2021). These experiences indicate that strategies that are primarily based on the provision of infrastructure might not be as effective when they are not backed with well-developed institutions and cultural adjustment.

There is also a common community-based sanitation strategy which have been applied with different degrees of success. The community led total sanitation (CLTS) programs have also helped curb cases of open defecation in Nepal especially in villages where the community and

peer accountability were central to the project (Shrestha, 2020). Nevertheless, the experience of Cambodia has not been very successful in providing sustainable results, owing, in large part, to the ineffectiveness of monitoring and the lack of supporting infrastructure (Chan, 2020). This comparison emphasizes the idea that although the community engagement is relevant in stimulating behavioral change, it does not eliminate the necessity of state-led investment and regulatory supervision.

Another approach that has been developed to enhance sanitation services is the public- private partnerships (PPP) although it can only work effectively when the conditions are good with regard to governance. PPP arrangements have been used in Chile to cover the entire city population under urban sanitation, aided by regulatory frameworks that hold private operators responsible in view of social and environmental standards (Vergara, 2022). The situation in the Philippines is somewhat different, but the PPP-led sanitation initiatives in Metro Manila have initially served more people but eventually raised affordability issues as the cost of services rose to make access to the service unaffordable to low-income households (Bautista, 2021). These cases suggest that the PPPs can be effective in the case of the balance of efficiency gains and equity-oriented approach with a powerful state regulation.

Different contexts have also been influenced by technological innovation in the sanitation strategies. The implementation of ecological sanitation systems in Sweden that recycle waste and use it in agriculture is evidence of how sanitation may be incorporated into the larger circular economy strategies (Johansson, 2019). In contrast, in Bangladesh, the adoption of low-cost latrine technologies has usually not been able to make sure of safe waste disposal, leading to environmental and health hazards like groundwater pollution (Haque, 2020). These examples indicate that technology is not a guarantee of success, its efficacy is based on its affordability, institutional backing, and long-term managerial ability.

The use of sanitation in schools gives an added understanding of what defines effectiveness. School sanitation programs that were funded by donors in Indonesia positively affected the accessibility of facilities, but they had problems with their maintenance and sustainability when external funding stopped (Putri, 2019). Comparatively, the school sanitation activities in Finland that combine infrastructure with hygiene education have demonstrated more sustainable results and long-term health and behavior changes in students (Johansson, 2019). This comparison

implies that physical facilities coupled with education and behavioral reinforcement are better sanitation interventions.

There is growing interest in the integration of sanitation plans into climate resilience planning. In the Netherlands, wastewater treatment facilities have been redesigned to produce energy, indicating how sanitation systems may help reduce as well as adapt to climate-related changes (van Leeuwen, 2020). Conversely, the poor sanitation infrastructure in some South Asian regions has collapsed every time there is a flood despite the fact that there has been a low regard of the dangers of climate during the development of the systems (Mara, 2019). These two contrasted experiences indicate that success of sanitation strategies is now being measured by how they can endure the environmental shock besides providing routine services.

One of the determinants of the success of sanitation interventions is financial sustainability. Sanitation systems in high-income nations like the United States have relatively stable sources of revenue (taxation and user fees) and are supported by constant maintenance and reinvestment (Murray, 2019). However, in other countries, including Cambodia, there is a high reliance on sanitation programs that are donor-financed, and the issue of sustainability is brought up when external funding priorities shift (Chan, 2020). These examples demonstrate that any good strategies are likely to be based on locally held and foreseeable means of financing, as opposed to external financing in the short-term.

Intervention of behavior is also significant in the identification of the sanitation outcomes. The Swachh Bharat Mission in India included awareness campaigns that gave support to swift construction of toilets but failed to provide consistency in their use especially in the rural regions (Sharma, 2021). In South Korea, the combination of the public awareness with the solid institutional enforcement in the sphere of sanitation resulted in the increased compliance and perpetuated usage (Lee, 2019). According to this analogy, effective sanitation planning needs a balance between hardware investments in infrastructural systems and software investments in sanitation (education, social norms, and enforcement).

The COVID -19 threat also challenged the sanitation systems across the globe. In other nations like Australia, one example, the developed wastewater infrastructure got adapted to the tracking of viruses which can offer valuable insights to the community during the pandemic (Ahmed,

2021). Conversely, the situation was more dangerous in India and Bangladesh, where the usage of shared sanitation systems in informal settlements would put the population at a higher risk of the disease, highlighting the frailty of infrastructure and leadership (Islam, 2022). This is informed by the experiences that reinforce the need to have sanitation strategies that can react efficiently to the emergency situations posed by the public health.

2.3 Regional Perspective on Sanitation Service Delivery

The provision of sanitation services has continued to be among the most endemic public health and development issues within the African continent. Even though there is a slow improvement in certain regions, a significant number of people still lack access to safely handled sanitation. The UNICEF (2021) estimates that over 700 million of the world population in Africa is not getting sufficient sanitation services and the disparity is evident across regions. In some of the countries of North Africa like Egypt and Tunisia, comparatively good levels of urban sanitation coverage have been realized through centralized and state-driven investment. Conversely, the sanitation shortage remains the common issue across most nations in Sub-Saharan Africa, such as open defecation and inefficient facilities, especially in rural and peri-urban populations (World Bank, 2020). These disparities have been traced to differences in history regarding infrastructure investment, governance capacity and population growth patterns (Amoako, 2019).

African sanitation situation is also influenced by a high rate of urbanization, growth of the informal settlement, and poor municipal funding that is straining already-stretched service delivery. Cities are expanding at a rate outpacing the infrastructure developments, which means local governments in the United States cannot keep up with the development of new and informal cities, leading to overcrowded infrastructures and uncontrolled waste (Awuah, 2022). African countries in their turn have developed various policy and program-based responses. As an example, Kenya has experimented with public-private operations to enhance sanitation in informal settlements in Nairobi, and Ghana has been more inclined to use donors-financed community-led operations on sanitation (Mensah, 2021). Though these methods have been promising, their results have been unequal, mostly limited by the institutional flaws, disjointed execution, and ad hoc funding.

The financial consequences of poor sanitation also support the acuity of the issue. According to the reports of the African Development Bank (2022), inadequate sanitation costs the African economies over US 5 billion annually in terms of increased medical spending and low productivity. Most African states are lagging behind the targets of Sustainable Development Goal 6 although some countries have documented remarkable development under the similar national sanitation programs as seen in the case of Rwanda. This scenario underscores the necessity of situation-specific approaches that go beyond individualized interventions and rather integrate infrastructural investment, institutional enhancement, and honest community interaction. These regional dynamics would be critical in informing better sanitation service delivery strategies in the African city environment, both in markets and other crowded places of the population.

2.3.1 The Current State of Sanitation Services in Africa

The situation with sanitation services in Africa is typified by large disparities as there are countries where there is a relatively high access rate and those whose needs have been grossly under-served. Evidence available indicates that sanitation accessibility is sharply differentiated between subregions, with safely managed access. The UNICEF (2021) indicates that in Sub-Saharan Africa, the proportion of the population that has access to safely managed sanitation is only 28 percent, whereas in North Africa, it is approximately 70 per cent. These values are a product of historical disparities in political stability, infrastructure investment and institutional capacity. Examples include how Egypt has maintained high coverage of urban sanitation coverage due to continued state investment whereas countries like Sierra Leone remain very low in coverage because of continued underinvestment and governance issues (Kargbo, 2020).

The rapid urbanization has also influenced the result of sanitation in most of the African nations. Cities like Lagos have overtaken the development of sanitation infrastructure in Nigeria, so that the vast populations now rely on informal pit latrines and septic systems (Ademola, 2020). In South Africa, the situation is different, with comparatively high urban sanitation coverage remaining mostly due to the past infrastructure development. There are however notable gaps in the rural areas where accessibility of better sanitation facilities is yet to be achieved (Khosa, 2019). These trends explain how the trend of uneven development processes are still relevant in the determination of sanitation outcomes in and among nations.

The fact that open defecation remains a major problem in the continent underscores the magnitude of the sanitation challenge in the continent. According to the data provided by World Bank (2020), open defecation rates have remained higher than 60 percent in such countries as Chad or Niger, which in turn leads to the outbreak of diarrheal diseases time and again. Simultaneously, Ethiopia has achieved significant achievements in the reduction of open defecation by conducting sanitation campaigns nationwide, but the question of the sustainability of the achieved benefits is still open because of the imperfect monitoring and follow-up systems (Bekele, 2020). This comparison indicates that though behavior change programs may produce quick gains, their sustainability is pegged on the institutional capacity and the long-term involvement of the community.

The results of sanitation in East Africa are both positive and negative. Kenya has been investing in sanitation infrastructure in large urban centers such as sewer expansion in Nairobi and Mombasa. This notwithstanding, informal settlement dwellers still continue to depend on common and in most cases insecure amenities (Otieno, 2021). However, Rwanda has pursued a more integrated approach to national sanitation as it interconnects rural and urban service delivery, leading to visible increases in the overall coverage (Mukumana, 2021). These experiences suggest that national coordinated planning is likely to yield more steady results as compared to disjointed interventions at city levels.

The same is a mixed case with Southern Africa. In some countries like Botswana, there is a comparatively high rate of urban sanitation coverage, but access was low in remote rural communities (Molefe, 2019). Although policy reforms have been implemented to increase sanitation, urban markets and informal settlements remain problematic areas in Zambia, as agencies show failure to fund, maintain, and administer infrastructure and cities (Mulenga & Banda, 2021). These cases demonstrate that national development can conceal major localized inequalities, which impair the effectiveness of the services in general.

Sanitation programs in the West Africa have been enhanced by significant donor funding, yet outcomes have not been consistent within countries and regions. There has been a decrease in the level of open defecation in Ghana through community-based total sanitation programs but coverage is not even throughout the country, especially in peri-urban zones where population increases is very high (Mensah, 2021). Liberia is also struggling with the reconstruction of

sanitation systems, which is not an easy task, and many communities have to rely on the unimproved ones (Johnson, 2020). These variations reveal the role of historical and political factors in the results of sanitation in the area.

North Africa is characterized by rather developed sanitation systems. Such countries as Tunisia and Morocco have high sanitation coverage rates with better institutional frameworks and more stable public investment (Benali, 2019). Nevertheless, urban-rural inequalities still occur as there are certain communities where access to sewerage and wastewater treatment is still insufficient (Othman, 2020). This is an indication that at least in more successful areas, the realization of non-discriminatory coverage of sanitation is still a challenge.

The second characteristic attribute to sanitation in Africa is the high usage of common facilities especially in the urban locations. According to the UNICEF (2021), a significant number of the urban population in places, including Tanzania and Uganda, use shared latrines that are usually not properly hygienic or have privacy. Conversely, Mauritius has attained extensive household-level sanitation coverage, and this is attributed to the fact that it has a smaller population, a stronger economic foundation, and superior urban development (Ramasawmy, 2020). Such disparities highlight demographic pressures and economic capacity and the way they determine models of sanitation service delivery.

2.3.2 Institutional, Financial, and Infrastructural Challenges in African Sanitation

The issue of institutional weaknesses still takes the centre of the stage in defining the challenge of sanitation in most of the African nations. Sanitation responsibility is in various contexts shared among multiple agencies and coordination is thus challenging and in most cases undermines accountability. In Nigeria, sanitation is shared between federal ministries, state governments, and local councils, and this situation has led to disjointed service delivery and leaving much of the informal settlements underserved (Ademola, 2020). Conversely, Rwanda has built a more aligned institutional system, where the roles of local governments are well defined by well established national supervision, which has led to discernible enhancement in the coverage of sanitation (Mukumana, 2021). Such experiences elicit the notion that role clarifications and proper coordination are indispensable to the long-term growth in the delivery of sanitation services.

In addition to institutional structure, accountability and governance practices are an important factor in the determination of sanitation outcomes. There have been cases in Ghana where lack of accountability mechanisms at the municipal levels has caused mismanagement of funds that are donor-funded and funded by sanitation programs which has led to delays and poor infrastructure (Mensah, 2021). Another example is Ethiopia, whereby community-based surveillance tools have enhanced accountability and assist in the maintenance of operability of sanitation facilities, even in isolated places (Bekele, 2020). Such a comparison shows that institutional effectiveness, is not just reliant on formal arrangement, but also on on-the-job systems which encourage transparency and accountable resource utilization.

The problem of financial limitations remains one of the most long-lived impediments to the increased sanitation throughout the continent. According to the African Development Bank (2022), the majority of African governments spend less than 0.5 percent of their gross domestic product on sanitation, which is much less than is needed to accomplish Sustainable Development Goal 6. Sanitation programs in Malawi have also been overly reliant on donor funding, which has reduced the sustainability of the programs (Phiri, 2019). South Africa, in its turn, spends a slightly more significant amounts of state on sanitation, but there are still considerable differences between urban and rural settings (Khosa, 2019). These instances hint at the fact that the lack of sanitation is frequently not caused by the absolute scarcity of resources but by a lack of priorities in the national budgets.

Reliance on external financing brings about new financial exposure. In post-conflict countries like Liberia, development of sanitation infrastructure has been dependent largely on donor funds, which casts an issue of sustainability once the external aid reduces (Johnson, 2020). The community of Kenya has had a contrasted idea of pursuing the public-private partnerships to troll the mobilization of domestic investment, especially in cities (Otieno, 2021). Although such partnerships have aided in the expansion of services, there have been concerns with regard to the issue of affordability in which the operators, being private corporations may be driven by the motivation of making financial gain at the expense of universal access. It means that the financing mechanisms should strike a balance between sustainability and equity to safeguard vulnerable populations.

The problem of infrastructural shortages is still prevalent and has been compromising the process of service delivery of sanitation in most countries in Africa. Sewerage systems cover a relatively low percentage of urban residents in Uganda and most households rely on poorly built and poorly maintained pit latrines (Nsubuga, 2021). Contrarily, Egypt has managed to attain relatively high urban-based sewerage coverage by maintaining investment in the wastewater treatment system (Othman, 2020). Such disparities underscore the role of the long-term strategy and political goodwill in the growth and maintenance of sanitation facilities.

Another challenge is the maintenance of the already existing sanitation infrastructure. Poor maintenance structures in Tanzania have resulted in the quick degradation of sanitation systems and the communities have had to go back to unsafe ways (Mwaipopo, 2020). In comparison, Morocco has prioritized the regular maintenance aspects and municipal control more, contributing to the maintenance of the sanitation systems working throughout the years (Benali, 2019). Such divergent experiences confirm that there should always be continuous investment in infrastructure building and maintenance and monitoring in order to maintain improvements.

The process of urbanization is putting more strain on the sanitation systems in African cities. The high population growth rate in Lagos has surpassed the capacity of the available infrastructure, leaving residents of the state with a high number of people using informal septic systems and engaging in unhygienic waste management (Ademola, 2020). The city of Addis Ababa gives a more aggressive response, with decentralized wastewater treatment plants being increased to match the increase in urban population, even though areas without coverage remain (Bekele, 2020). These illustrations demonstrate that urbanization may be a grave challenge, but this can be curbed by early planning and investment in certain areas that can reduce the adverse impacts of the situation.

Another group of infrastructural and institutional problems are experienced in rural areas. The geographic isolation and the lack of governmental presence can usually become barriers to better sanitation services, such as in Madagascar, where non-governmental organizations and community-led initiatives take a central place in providing the services (Rakoto, 2019). Conversely, Botswana has been engaging in rural sanitation with state subsidies and is reasonably successful in rural coverage coverage compared to most other neighboring countries

(Molefe, 2019). These instances reflect that when there is a long-term governmental commitment, the concern of rural sanitation shall be tackled.

Financial and institutional frailties also lead to inequalities that never cease to exist regarding the access to sanitation. In Mozambique, the more affluent households can afford to have flush toilets with sewerage connections, whereas the poorer households in informal settlements have no option but to use unsafe pit latrines (Chilundo, 2021). In Mauritius, access to sanitation services is relatively equal among socio-economic groups, and this is supported by long-term government investment and inclusive policies (Ramasawmy, 2020). The differences indicate that sanitation systems may perpetuate the status quo in cases of no explicit pro-poor practices.

Climate change is increasingly affecting sanitation in Africa more so in urban areas that are prone to floods. Poor drainage and sanitation systems in some cities like Accra cause constant pollution of water sources whenever there is heavy rainfall (Owusu, 2021). Meanwhile, other nations like Namibia have shown how innovation can make them more resilient, in particular, by using wastewater recycling programs in Windhoek to decrease exposure to water shortage and climate pressure (Munyika, 2020). These opposite illustrations demonstrate that, although climate risks contribute to the worsening of sanitation challenges, they also give innovations opportunities when institutions and financing mechanisms are robust enough to facilitate adaptation.

2.3.3 Effectiveness of Sanitation Strategies and Possible Interventions in Africa

Sanitation efforts that have been applied to Africa have not been uniform with much coming down to the disparities in the governance capability, institutional understanding, and financial asset accessibility. Sanitation reforms in some nations like Rwanda have been fairly successful since there has been the incorporation of community involvement and strict government control. Improvements have been made to the rural and urban environment through the national sanitation policy, which allows all local efforts to be coordinated with the national goals (Mukamana, 2021). Conversely, the sanitation programs in Nigeria have had minimal effects, with the lack of impact being caused by the lack of capacity by local governments and poor coordination between the federal and state institutions (Ademola, 2020). These opposite experiences deliver the idea that the sanitation strategies cannot be effective unless the effective and consistent governance arrangements are in place.

Community-Led Total Sanitation (CLTS) is substantially encouraged as an economically efficient method of the open defecation reduction, but the results of its implementation have been quite inconsistent in African settings. The CLTS programs delivered in Ghana resulted in a decrease in open defecation in the target districts, which, however, could not be maintained since of follow-ups and insufficient monitoring systems (Mensah, 2021). In comparison, Ethiopia achieved more sustainable results whereby CLTS was strengthened by government-facilitated hygiene promotion and institutional control (Bekele, 2020). This implies that the best way in which community based strategies can be adopted is through the involvement of formal institutions and not when it is adopted in isolation.

School based sanitation programs have also helped in increased access especially among the children. The School Sanitation and Hygiene Education (SSHE) program was implemented in Kenya to increase the number of toilets in the public schools, although the issues of maintenance and long-term funding remain (Otieno, 2021). South Africa is a more stable example, as school sanitation programs are included in the national budget, making it clear that they are regularly maintained and will be sustained even in underserved locations (Khosa, 2019). These experiences suggest that interventions in schools are more sustainable in a completely institutionalized government structure.

Parent countries have introduced public-private partnerships (PPPs) to deal with any gap in both funding and service delivery. In Senegal, PPPs have had access to urban areas mechanized desludging services, which have enhanced better sanitation and minimized the risk of compromised public health (Diallo, 2020). On the other hand, the other efforts made in Zambia have failed because of the affordability factor and lack of regulation, especially in the state markets and slums (Mulenga & Banda, 2021). Such instances point to the fact that PPPs are not always ineffective, being only effective when combined with a powerful control mechanism and effective regulations to protect low-income users.

The use of sanitation subsidies as an intervention to assist low-income households has not been successfully applied. Subsidies in Mozambique boosted the rate of building toilets, but did not always lead to permanent use or maintenance (Chilundo, 2021). Unlike this, Botswana recorded greater results through the integration of subsidies and awareness campaigns and control

measures, which motivated adoption and sustained use (Molefe, 2019). This analogy shows that financial incentives cannot be effective without support in terms of behavior and institutions.

Technological solutions have provided alternative avenues of enhancing sanitation, but they may not work based on regulatory and institutional settings. Ventilated improved pit latrines have increased access in underserved regions in Uganda but there are concerns of environmental safety because of low enforcement standards (Nsubuga, 2021). The case of Namibia is contrary, as the investment in wastewater recycling at Windhoek has improved the services of the sanitation system, as well as reinforced the water security (Munyika, 2020). These examples indicate that innovation can be the key to high results in case of long-term planning and regulation.

There has also been a role of behavioral change efforts albeit at varying levels. Sanitation campaigns in Malawi promoted the use of a toilet initially, but failed to engage related institutions in the long term, leading to an increase in dangerous behavior (Phiri, 2019). In Tunisia, behavioral interventions occurred along with infrastructure development and enforcement systems and resulted in a more regular adoption of the better facilities (Benali, 2019). This means that serious behavior change can only be reinforced by credible services and accountability systems.

Co-ordination has been done at the regional level to empower sanitation governance. AMCOW has advocated common goals and policy frameworks on which countries can base their sanitation plans (AMCOW, 2020). Nevertheless, the improvement is not even, and some nations, including Liberia and Chad, are falling behind because of the poor institutional capacity and insufficient political will (Johnson, 2020). Although regional initiatives offer strategic guidance, their application is always subjected to the implementation at the national level.

Sanitation strategies have been further tried by external shocks. Frequent floods in Mozambique have destroyed water sanitation infrastructure, undoing the gains in vulnerable populations (Chilundo, 2021). South Africa was the opposite, as the country was adaptive to the COVID-19 pandemic by expanding emergency water and sanitation services to informal settlements (Khosa, 2019). These events highlight the essence of resilience and flexibility on sanitation planning.

On the whole, the experience of multiple African countries indicates that the strategies of sanitation should be developed in an integrated way in terms of the infrastructure development, funding, governance, and community involvement. According to Awuah (2022), the individual use of CLTS, subsidies, or PPPs can hardly have a permanent effect, unless they are incorporated into a system of responsible and well-endowed institutions. Effective cases in Rwanda and Namibia show that integrated and context-specific measures can bring long-lasting results, whereas problems in such states as Nigeria and Liberia reveal the effects of poor governance and poor investment.

2.4 The Local Perspective on Sanitation Service Delivery

There are both positive and negative dynamics in the delivery of sanitation services in Zambia, particularly in the cities and informal settlements. According to UNICEF (2021), in Zambia, the proportion of the population with access to safely managed sanitation is approximately 31 percent, and there are vast disparities between the cities and rural regions. The capital, Lusaka is especially under pressure given that due to the rapid urbanization and population growth and influx of informal settlements, many people lack or have inadequate sanitation systems (Mulenga & Banda, 2021). Despite the initiation of national policies, including the National Urban Sanitation Strategy (2018-2030), the situation has been uneven, so vulnerable groups were facing threats of water-borne diseases that could be avoided (GRZ, 2020).

Meanwhile, Zambia enjoys a considerable amount of assistance provided by global donors and other organizations, such as the World Bank, GIZ, and UNICEF, to develop infrastructure and hygiene promotion. As an example, the Lusaka Sanitation Program has proposed sewerage extensions and decentralized treatment plants to enhance the peri-urban coverage (World Bank, 2020). Nevertheless, such actions do not ensure that the Lusaka City Council (LCC) and other local governments do not face the problem of financing, coordination of the institution, and maintenance of infrastructure (Chirwa, 2022). This ambiguous situation shows that there is a necessity of a critical analysis of the state of sanitation in the country, the institutional and financial problems that restrict the effective provision of sanitation and the possible solutions that might lead to greater sustainability and equity in the sector of sanitation in Zambia.

2.4.1 The Current State of Sanitation Services in Zambia

The sanitary service provision in Zambia shows that there are still gaps in the system, even after 40 years of policy change and donor assistance. According to UNICEF (2021), the proportion of access to safely managed sanitation among Zambians is approximately 31 percent, and rural locations have drastically lower results compared to urban ones. Although urban areas like Lusaka and Ndola have developed sewer systems, in most rural areas, sanitary sewer systems are used, with most of the pit latrines being unsafe and poorly constructed (Chirwa, 2022). This rural-urban gap highlights the structural issues that still characterize the provision of sanitation whereby the investment is more likely to concentrate in urbanized regions and rural populations are inadequately served.

The urbanization has enhanced the strains of sanitation especially in Lusaka, which has experienced unimaginable population growth in the informal settlements. According to Mulenga and Banda (2021), the lack of proper sanitation facilities in such overcrowded slums as Kanyama and Chawama is one of the causes of frequent cholera and diarrhea outbreaks. In comparison, residential zones where the city of Lusaka has planned residential developments have a much better sewerage connection, which depicts profound inequalities under the same city. This juxtaposition underscores the fact that urban planning and socio-economic status have a direct effect on the results of sanitation, causing health risks that are disproportionately exposed to the low-income groups.

Another important aspect of sanitation in Zambia is markets. Soweto Market is one of the biggest informal trading centers in Lusaka, and the sanitation issue is chronic because there are few public toilets, and waste management cannot be considered effective (Zimba, 2021). Business people and consumers are compelled to use improvised amenities or drains which are close by and thus, fail to provide hygienic conditions that can support health and trade. On the other hand, the newer markets that were established in accordance with the Markets and Bus Stations Act are more sanitized, yet their maintenance remains a problem (Mwiinga, 2020). This contrast displays the disparity of sanitation in trading areas, in which busy trading markets are left unattended even though they are significant economically.

The sanitation issue is also experienced in the school sector. The Ministry of Education (2020) states that there is limited access to enhanced sanitation, with even less schools being gender-

segregated. The case also leads to absenteeism in teenage girls during the menstrual period, which inhibits their education (Kaputo, 2019). Conversely, the urban schools (particularly, private ones) tend to offer superior sanitation infrastructure, which highlights the influence of socio-economic privilege in defining access. The gap implies that not only health, but also inequality in learning outcomes is a factor that strengthens the status quo in terms of sanitation in education.

The gap in sanitation is also observed in healthcare facilities. Research by Phiri (2020) revealed a situation in which a large number of rural clinics do not have proper sanitation and water supply, so the patients and workers are obliged to use unsafe points. This has the effect of undermining the quality of care provision and infection prevention. On the other hand, tertiary hospitals like the University Teaching Hospital in Lusaka are well equipped but still face the issue of ageing infrastructure and maintenance problems. Such disparity indicates that healthcare sanitation disparities indicate as well as exacerbate the disparity between the urban and rural populace.

National initiatives like the Lusaka Sanitation Program have played significant roles in ensuring that there is an improvement in the sanitation scenario. The program, which is funded by the World Bank and other partners, has also provided decentralized wastewater treatment plants and increased sewer networks in the peri-urban regions (World Bank, 2020). Nonetheless, Chirwa (2022) claims that the scope of such interventions is still narrow, which will only benefit a small part of the population of Lusaka that grows fast. The greater sanitation situation therefore is indicative of improvements in particular areas as well as the continuation of systemic disparities that make it difficult to cover the entire population.

Sanitation has been made one of the priorities in the government policy frameworks but it is still not implemented uniformly. The National Urban Sanitation Strategy (2018 2030) has great goals of coverage and better wastewater management (GRZ, 2020). The institutional capacity and the lack of funds has however slowed the pace and many initiatives are either underfunded or delayed. In comparison, Rwanda has had more success out of its sanitation plan because of the better accountability and political will (Mukumana, 2021). This analogy shows that policy documents cannot work on their own, they need institutional power and long-term investment in order to be implemented successfully.

Affordability inequalities also determine the state of sanitation. Households are unable to afford better toilets or desludging services in the peri-urban settlements due to their financial inability (Zimba, 2021). In the meantime, more prosperous families in the city can afford to install septic tanks or sewerage connection systems which represent a two-tier system of access to sanitation. Mulenga and Banda (2021) have termed this disparity as a case of sanitation poverty with policy being less important than household income as a determining factor in access. The issue of filling this gap is one of the most urgent problems of the country.

Sanitation is also affected by attitudes towards it that are associated with the cultures. There are rural regions where even better facilities are not embraced fast because traditional practices and beliefs make people believe that open defecation is a culturally acceptable or more convenient way (Kaputo, 2019). In comparison, in cities, modern amenities are in higher demand, but it is limited by the lack of infrastructure. This cultural difference emphasizes the fact that the state of sanitation in Zambia cannot be only studied in technical or financial terms but it also needs to be placed in social and cultural contexts.

2.4.2 Institutional, Financial, and Infrastructural Challenges in Zambia's Sanitation Sector

Fragmentation of institutions is also one of the key issues in the sanitation sector in Zambia. Accountability is also distributed among various organizations, such as the Ministry of Water Development and Sanitation, Lusaka Water Supply and Sanitation Company, and local government such as the Lusaka City Council (GRZ, 2020). The duplication of roles and inefficiencies is a common occurrence due to this overlapping of mandates. Chirwa (2022) notes that there have been unclear accountability roles between national and municipal institutions that have slugged sanitation project implementations especially in urban markets. In comparison, other countries like Rwanda have centralized the process of sanitation into the integrated agencies and made them more efficient (Mukumana, 2021). The Zambian experience portrays that institutional fragmentation compromises the coordination of service delivery.

Laxity of the regulations also contributes to the sanitation problems. Despite the frameworks on sanitation standards having policies like the Public Health Act and the National Urban Sanitation Strategy, their enforcement in local levels is scarce (Mulenga & Banda, 2021). As an example, in the Lusaka market, there is a high number of traders who do not have access to clean toilets even

though it is mandatory that local councils should have proper facilities (Zimba, 2021). This policy-practice gap indicates institutional frailty that is restrictive in criminalizing legal texts into concrete delivery. In South Africa, the regulatory capacity is demonstrated by the fact that relatively stronger municipal enforcement leads to more frequent sanitation in public spaces (Khosa, 2019).

Another major challenge to the provision of sanitation services in Zambia is financial constraints. The government spending on sanitation constitutes up to less than 0.2 per cent of the GDP, which is significantly lower than the amounts required to reach Sustainable Development Goal 6 (UNICEF, 2021). This has led to a huge dependence on donor funds by organizations like the World Bank and GIZ on projects like the Lusaka Sanitation Program (World Bank, 2020). Although infrastructure infrastructure has been boosted in some of the peri-urban regions through donor funding, Chirwa (2022) cautions that dependence on external funding compromises sustainability because such projects will stall when the priorities of the donors change. This dependency in terms of finance portrays the instability of the Zambian sanitation funding structure.

Cost is also a determinant of the financial environment of sanitation. Peri-urban settlements have a significant number of households that are not able to pay to have connections to sewer or desludging services performed on a regular basis (Zimba, 2021). In comparison, the wealthier households within the planned regions of Lusaka have an opportunity to invest in the sewer systems or septic tank, which strengthens socio-economic differences in access to sanitation. Awuah (2022) cites this as the so-called sanitation poverty that restricts the efficacy of national measures because of financial limitations they cause people to implement them equally. It means that, when enhanced sanitation funding is to be done, pro-poor subsidies or cross-subsidization models need to be engaged to make it inclusive.

The other characteristic of the sanitation sector in Zambia is infrastructural deficits. Sewerage is only available in large cities, and in Lusaka, its coverage is estimated at less than 20 per cent of residents (Mulenga and Banda, 2021). Most of the households use pit latrines most of which are unimproved and unsafe. Sanitation infrastructure is even worse in the rural regions, as the population in some rural communities continues to use the open defecation method (Phiri, 2020). The failure of such infrastructural gap weakens the health of the population because improper

disposal of human waste leads to water pollution and frequent cholera epidemics. In comparison, Namibia has made investments in the wastewater recycling technologies to enhance sanitation infrastructure (Munyika, 2020), which is an example of other options that have not been taken by Zambia.

There are also major challenges on the maintenance of existing infrastructure. Chirwa (2022) states that the number of functional and well-maintained public toilets in Lusaka markets and bus stations is minimal, which discourages people and drives them to use unsafe methods. This has been blamed by lack of sufficient budgetary allocations on operation and maintenance and poor monitoring systems within the local authority levels. However, Tunisia has implemented more robust maintenance systems that prolong the life of sanitation systems (Benali, 2019). The case of Zambia proves that when infrastructure is invested in without planning on how to maintain it, it would soon start to deteriorate and collapse in service.

Infrastructural pressures are augmented with urbanization. Lusaka, a city experiencing an average growth of 4□ percent each year, is experiencing an increasing sanitation strain that is beyond the capacity of the available infrastructure (GRZ, 2020). This issue is magnified by informal settlements like Kanyama and George, which are usually constructed without planning of sewerage network (Mulenga & Banda, 2021). There is a reaction in the form of decentralized sanitation technologies, including simplified sewer systems, which have been tested at scale, but are not widespread (Zimba, 2021). These issues demonstrate the real necessity of the infrastructure planning, which seeks to predict the urban development instead of responding to the crisis.

The rural settings are under varied infrastructural limitations, which are mostly associated with poverty and geographical seclusion. In some of the provinces, like Luapula and Muchinga, less than 20% of the population has access to improved sanitation because of minimal investment and disregard to the traditional way of doing things (Phiri, 2020). Government programs to encourage toileting rural areas have not been entirely successful but their use is obstructed by the lack of technical skills and financial capabilities among households (Kaputo, 2019). This rural disregard is in contrast to urban investments and highlights the unfair allocation of sanitation facilities in the country.

Sanitation is another issue that is worsened by climate risk in Zambia. Pit latrines are frequently destroyed during seasonal flooding in Lusaka and other places with a low elevation, and this damages water sources because of their contamination (Chirwa, 2022). This problem exemplifies the infrastructural vulnerabilities at large since the city sanitation systems are not fitted to handle the extreme weather conditions. Conversely, Namibia has been incorporating climate-sensitive sanitation facilities that feed on the resilience to floods and droughts (Munyika, 2020). The experience of Zambia indicates that the sanitation infrastructure currently in place can be jeopardized by the environmental shocks, unless climate-proofing is carried out.

2.4.3 Effectiveness of Sanitation Strategies and Possible Interventions in Zambia

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Zambian sanitation policies have had both positive and negative outcomes due to the influence of donors, government policy and local realities. World Bank-supported Lusaka Sanitation Program has increased sewer systems and decentralized wastewater treatment facilities in the targeted peri-urban regions (World Bank, 2020). Although thousands of households are now able to access it, Chirwa (2022) highlights that the program is still not enough to cover the enormous informal settlements in Lusaka. It has been successful not just in terms of success but also due to the lessons it teaches on the flaws of donor-funded, city-centered intervention.

Community-based approaches have potentials but have sustainability issues. The CLTS model has lessened the level of open defecation in places like Choma and Chipata by advancing the change of behavior and ownership (Kaputo, 2019). Nevertheless, Phiri (2020) notes that most communities require relapse upon a decrease in external monitoring, implying that CLTS is not effective enough in ensuring permanent improvements. Rwanda, in its turn, implements CLTS in robust institutional contexts, which provide more sustainable outcomes (Mukumana, 2021). The experience of Zambia suggests that community mobilization is essential but it relies on any long-lasting institutional support and integration with the provision of infrastructure.

The introduction of public-private partnerships (PPP) has been used to increase sanitation services particularly in the urban markets. However, at Soweto Market, PPPs between the Lusaka City Council and the private operators have seen improvements in the provision of toilets in certain locations, with affordability and maintenance continuing to be the issue (Zimba, 2021).

Mulenga and Banda (2021) suggest that PPPs can work when local authorities retain control and provide an equal opportunity to all, but fail when profit-making and quality competition are the concerns of private actors. Zambia shows the dangers of poor regulation compared to Senegal where PPPs in urban desludging services have been mostly successful (Diallo, 2020).

The advancements and the incessant gaps are depicted through school sanitation programs. The Ministry of Education (2020) has increased toilets within state schools, and particularly donor-funded projects to the detriment of thousands of students. However, according to Kaputo (2019), there is poor maintenance and gender-sensitive design, which poses a problem to teenage girls on their period. The effectiveness of the provision has been made more reliable by South Africa integrating sanitation in budgets of school infrastructure (Khosa, 2019). This analogy highlights the fact that the school sanitation policies in Zambia need to be more institutionalized in terms of state finances.

The pilot program of sanitation subsidies has gone off unevenly. In others, subsidies to help low-income households in peri-urban settlements to build better toilets have led to more access, although affordability is still an issue in the poorest households (Mulenga & Banda, 2021). The experience of Botswana, which included subsidies with harsh surveillance and awareness efforts, has resulted in more uptake (Molefe, 2019). The subsidy programs in Zambia should therefore transcend monetary rewards to education, technicalities and community responsibility.

Change campaigns on behavior have also been involved but the effects are short lived. During cholera outbreaks in Lusaka, hygiene practices and the use of toilets were promoted through national campaigns; these practices faded away after the threat was over (Chirwa, 2022). The behavioral change interventions as part of long-term educating the population on their health have had more enduring impacts in Tunisia (Benali, 2019). The use of short-term and crisis oriented campaigns in Zambia is indicative of the necessity of having a long term and integrated strategy to behavior change.

Interventions that receive support through donors remain the order of the day in sanitation. Projects implemented with the support of UNICEF, GIZ, and World Bank present a new technology, decentralized wastewater treatment, and hygiene promotion (World Bank, 2020). Although the technical effectiveness is also tangible, Zimba (2021) emphasizes that there are

risks of dependency, given that in many instances the local authorities are not able to continue programs once the donors leave. Ethiopia has developed a stronger sense of national ownership of donor programs (Bekele, 2020), the implication of which is that Zambia needs to enhance local effectiveness to the long term.

Institutional reforms have the intention of enhancing governance but they have not been effective all the way. Greater political recognition came with the setup of the Ministry of Water Development and Sanitation in 2016 (GRZ, 2020). However, the negative aspects of coordination in between ministries, local councils, and water utilities are poor, which disrupts implementation (Chirwa, 2022). However, the key difference here is that centralized coordination in Rwanda has delivered better outcomes (Mukumana, 2021). The reforms in Zambia show that establishing institutions is not sufficient but the effectiveness requires being resourced by resources, accountable, and integrating across sectors.

Sanitization in the market is becoming popular and Soweto Market is an important example. The City Council of Lusaka has applied sanitation by-laws and collaborated with the private operators to enhance the availability of toilets (Zimba, 2021). Enforcement is however not strict, and the facilities are usually not sufficient in terms of size and utilization to the market size. The Nairobi markets of Kenya have an advantage of better PPP models and community participation in the management (Otieno, 2021). The market sanitation approach by Zambia demonstrates how the larger governance issue of regulation, funding and service provision fit in public places.

On the whole, the sanitation policies of Zambia are limited by the lack of institutional capacity, financial deficits and integration between the infrastructure and behavior change. The gains have been attained through donor programs, but there is uncertainty on whether sustainability would be achieved unless there is greater government ownership. According to Awuah (2022), even individual accomplishments are not capable of compensating structural frailties in governance and funding. The potential interventions are to enhance the institutional coordination, institutionalize sanitation in both national and local budgets, implement climate-resilient infrastructure, and foster inclusive models so that the low-income earners can afford. Integrated strategies are the only ones that can make sanitation services in Zambia more effective and sustainable.

2.6 Theoretical Framework

This study is informed by the theoretical framework in analyzing the dilemma experienced by the Lusaka City Council (LCC) in its delivery of the sanitation services. It places municipal issues in the context of larger patterns of governance, institutions, and systems of service delivery. The framework indicates how these resource constraints, administrative capacity, and policy implementation influence the outcome of sanitation and the daily lives of residents. The theoretical basis of the study will allow analyzing the performance of the municipalities, revealing areas of service deficiency, and developing effective strategies of improvement in accordance with the goals of the research (Denhardt and Denhardt, 2000; Meyer and Rowan, 1977).

The theories used in this study enable multidimensional interpretation of the problem of municipal sanitation. The Public Service Delivery Theory is concerned with operational effectiveness, and it puts emphasis on accountability, efficiency and responsive to the needs of the citizens (Bouckaert et al., 2010). The focus of the Institutional Theory is on the influence of formal and informal rules, norms, and structures on the behaviour of municipalities and their results (Scott, 2014). A combination of these theories provides a holistic perspective in which to examine practical as well as structural determinants of the delivery of sanitation services in Lusaka, and as such, the interaction between policy, governance, and realities of the lived communities.

The framework is correlated with the aims of the study: assessing the efficiency of the municipal services, finding the gaps in the sphere of sanitation delivery, and creating the strategies of improving the situation. The framework also gives the study a solid empirical base and scholarly knowledge by relating the theoretical knowledge to practical issues, a fundamental aspect of a rigorous study of the provision of sanitation services (Denhardt and Denhardt, 2000; Meyer and Rowan, 1977; Bouckaert et al., 2010).

The delivery theory of the constitution is a theory of public service that is applied in the delivery of services

2.6.1 Public Service Delivery Theory

The delivery theory of the constitution ion is a theory of public service in the provision of services.

Denhardt and Denhardt (2000) express the Public Service Delivery Theory that gives a perspective through which we can analyze the way municipal authorities like the Lusaka City Council can provide sanitation services. The focus variables are accountability, efficiency in the allocation of resources, and the sensitivity to the needs of the citizens. According to the theory, low accountability and efficiency are associated with poor outcomes and high rates of these variables enhance the quality of the services. Practically, the success of waste collection, drainage, and management of public toilets in Soweto Market does not entirely rely on the availability of infrastructure, but the planning, resource distribution, and response of the authorities to the needs of the community. The theory emphasizes the working aspect of service provision where the uncertainties in the accountability and efficiency are the direct causes of poor sanitation services (Bouckaert et al., 2010).

The second important factor is the contact between the citizens and the service providers, especially feedback and engagement systems. This brings in the citizen participation as a variable that can affect results. Significant involvement of the population by the government increases accountability and hence service delivery is improved. Indicatively, when traders in Soweto market report their problems regarding the overflowing trash bins or dysfunctional toilets, and the council responds to this information, accountability intensifies and the sanitation results will be enhanced. Feedback that is neglected destroys trust and results in reduced quality of service (Pollitt and Bouckaert, 2011). This line of view indicates that the need to provide sanitation is not a top-down task but an activity negotiated based on lived realities.

Lastly, the theory focuses on transparency as an aiding variable that strengthens accountability and efficiency. Share of budgets, allocation of resources and performance information make municipalities trustful and enhance outcomes. In Lusaka, greater openness in the management of sanitation funds would help citizens to keep the authorities accountable, and a cycle of transparency, which creates accountability, accountability creates efficiency and efficiency creates service delivery. This is a cyclic association: the open reporting enhances accountability, which contributes to efficiency and improved results (Denhardt and Denhardt, 2000; Bouckaert

et al., 2010). The use of this theory in the context of the Soweto Market is permissive to critically assess the interaction between the weaknesses of accountability, responsiveness, and transparency to create the present sanitation problems among traders and residents.

2.6.2 Institutional Theory

Institutional Theory, originally advanced by Meyer and Rowan (1977), provides an additional lens for understanding organisations by emphasising the broader structural and normative context within which they function. The theory highlights key variables such as formal rules and regulations, informal social norms, and the level of institutional capacity, particularly in relation to human and financial resources. The underlying causal relationship is that effective sanitation outcomes are more likely when strong institutional rules are supported by adequate capacity and reinforcing norms. In contrast, weak enforcement mechanisms and limited resources often result in poor service delivery, even where formal rules exist (Scott, 2014).

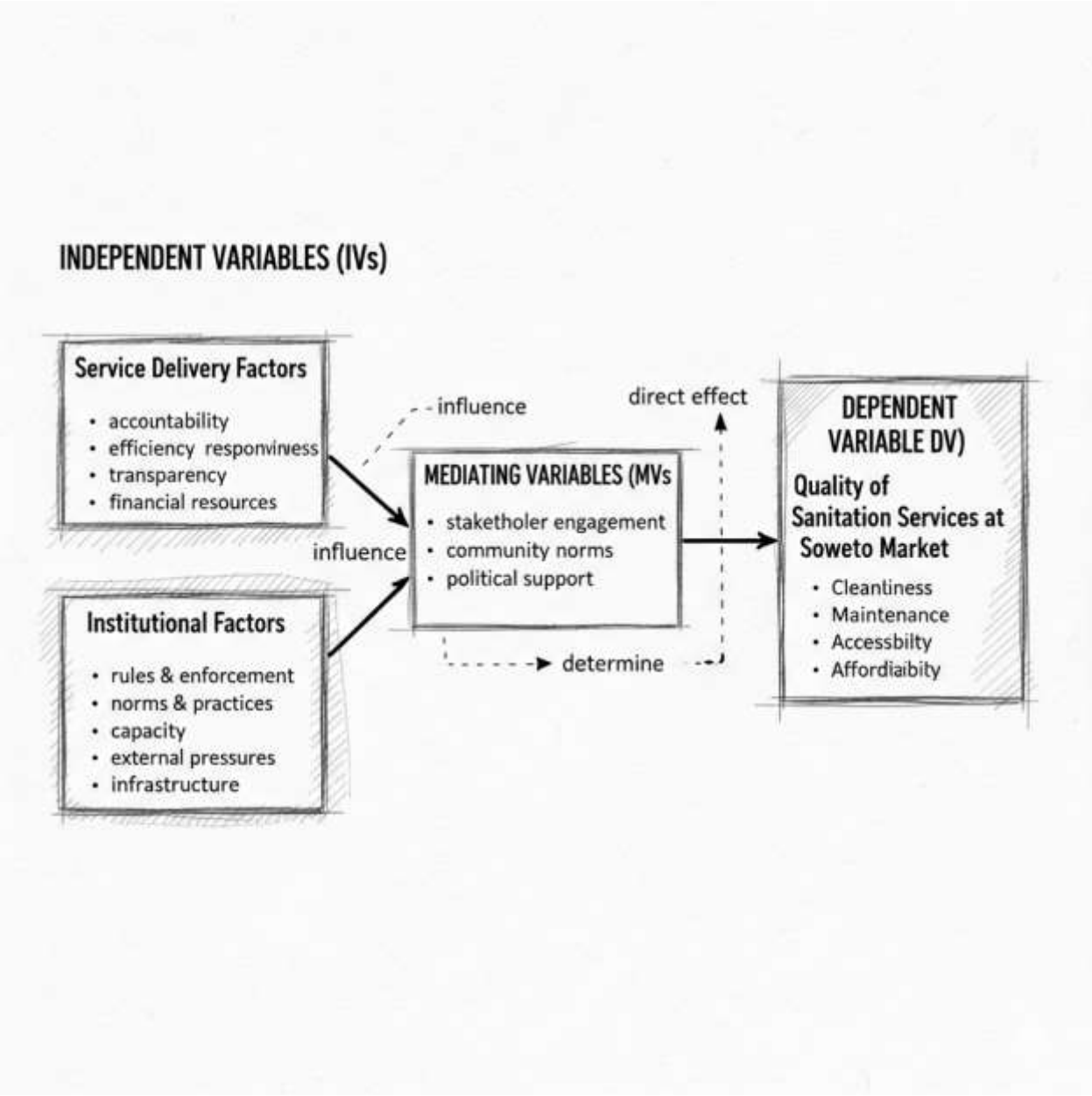
In the context of Lusaka, sanitation by-laws and regulatory frameworks are formally in place; however, limitations in enforcement capacity and resource constraints frequently prevent these rules from translating into meaningful improvements on the ground. This suggests that the mere existence of institutional structures is insufficient to guarantee positive outcomes unless they are backed by adequate capacity and effective implementation mechanisms.

Institutional Theory further explains that organisations may adopt policies and formal structures primarily to demonstrate legitimacy, rather than to ensure practical implementation. Such symbolic adoption of rules helps organisations appear compliant with expectations while actual practices remain unchanged. This perspective helps to explain why municipal authorities may formulate sanitation strategies but struggle to enforce them effectively. The causal link here lies in the gap between the presence of regulations and the lack of enforcement capacity, which leads to superficial compliance rather than real sanitation improvements. For example, although waste disposal regulations exist at Soweto Market, insufficient enforcement personnel and limited resources allow improper waste disposal practices to persist, resulting in poor sanitation conditions. This disconnect between formal policy and operational reality directly weakens service delivery (Meyer & Rowan, 1977; DiMaggio & Powell, 1983).

In addition, Institutional Theory draws attention to the influence of external pressures—regulatory, normative, and cultural-cognitive—on organisational behaviour and performance. These pressures serve as important variables that can either strengthen or limit institutional capacity. For instance, directives from national government may compel the Lusaka City Council (LCC) to prioritise sanitation improvements, while community expectations and cultural perceptions of cleanliness may also shape behaviour. The causal relationship suggested by the theory is that when such external pressures are strong but institutional capacity remains weak, improvements in service delivery are unlikely. Conversely, when community expectations align with sufficient resources, effective enforcement, and strong institutional capacity, sanitation outcomes tend to improve substantially (Scott, 2014).

Overall, this theoretical perspective offers a structured framework for analysing how the LCC operates under significant external demands while facing internal capacity constraints, and how this interaction contributes to the ongoing sanitation challenges experienced in Lusaka's largest market.

2.7 Conceptual framework



This theoretical construct describes the information that affects the quality of sanitation services at Soweto Market. The variables will be grouped into three major categories including independent variables, mediating variables and a dependent variable. The independent variables involve service delivery factors, which are accountability, efficiency, responsiveness, transparency and financial resources, and the institutional factors, which are formal rules, informal norms, institutional capacity, external pressures and existing infrastructure. These aspects influence the quality of the possible provision and maintenance of sanitation services,

both in respect to the inner processes of service institutions, and the overall structural setting where they function (Scott, 2014; Bwanga, Kanyamuna & Qutieshat, 2023).

Mediating variables indicate the working mechanisms under which these independent factors influence sanitation results. Stakeholder involvement, communal values, and political backing is the frame in which, the role of bridges that facilitate transformation of resources and institutional setups into the reality of service quality plays out. Indicatively, with adequate funding, or good infrastructure, improvements in sanitation are bound to be minimal in case the community is not mobilized or the political support is poor. It has been found that when communities are actively involved, and the local leaders can promote initiatives, the quality of services will be increased by a significant margin (Putnam, 1993; Rulashe and Ijeoma, 2022).

The dependent variable here is the quality of sanitation services and it is measured using such indicators as cleanliness, maintenance, accessibility, and affordability. The framework acknowledges that an independent variable can have the outcome response either directly or indirectly via the mediators. Such a way offers a good direction to be followed by empirical research and emphasizes the need to have a combination of institutional strength, effective service delivery, and active community involvement to make sanitation services sustainable.

CHAPTER THREE: RESEARCH METHODOLOGY

3.0 Introduction

The chapter outlines the research methodology and explains how the research was done to find out the challenges the Lusaka City Council encounters in the delivery of sanitation services. It describes research design, population of the study, sampling methods, data collection tools, instruments to be used, and methods of assuring reliability and validity. The chapter also explains the methods used to analyses the data, restrictions which were experienced during the research, and the ethical concerns that were used in the research. The justification of each of the methodological decisions is presented in order to demonstrate how it can be used to support the study objectives and contribute to the credibility and persuasiveness of the results.

3.1 Research Design

The research design used in the study is the qualitative research design in order to comprehend the challenges that the Lusaka City Council experiences with the provision of the sanitation services at the Soweto Market. The qualitative design was selected since the researchers aimed to obtain lived experiences, perceptions, and operational realities of stakeholders, and not produce statistical generalizations. This design enabled us to investigate the feeling and perception of traders, customers, sanitation workers, municipal authorities, and market managers about sanitation issues in their day-to-day lives (Creswell and Poth, 2018).

The design helped us to investigate institutional voids, funding limitations, governance problems, and behavioral patterns that can determine the results of municipal sanitation. Through direct intervention with participants, the qualitative inquiry revealed inherent social, organizational, and structural reasons that are not typical of quantitative research. This design was thus suitable to record real-life constraints in the market environment and how various stakeholder groups can maneuver and react to sanitation service constraints (Nowell et al., 2017).

Moreover, the qualitative design gave the possibility to pursue the directions of the emerging insights and make necessary changes in the data collection process. The detailed information was collected with the help of interviews, focus-group discussions, and non-participant observations so that the themes appeared through the prism of different perspectives. This adaptability

enhanced the study capacity to reflect on the context-specific issues and come up with conclusions based on actual experiences of people who engage in sanitation operations firsthand (Mason, 2018; Patton, 2019).

In general, the qualitative design has contributed to the richness and descriptive and contextually-based evidence that is presented in the study and correlates with the research objectives. The design provided subtle details that can be used to make practical changes in the delivery of sanitation services at Soweto Market and other urban settings because of its emphasis on depth, as opposed to numerical representation.

3.2 Study Population

The population of the study was the people who directly and indirectly participated in the sanitation activities of the Soweto Market in Lusaka. This involved traders, customers, sanitation workers, officials of Lusaka City Council, members of market management committee and volunteers or NGOs or individual contractors that provided assistance in sanitation activity. The population was suitable since the provision of sanitation services at Soweto Market is a multi-actor contingency that determines the service outcomes due to the combined contributions, experience, and interactions of the players. The use of all these audiences helped the study to present the views of both service providers and users to have a holistic picture of operational and institutional issues impacting sanitation at the market (Creswell & Poth, 2018).

An estimated population of 1229 people (around 200 traders, 1000 regular customers, 15 sanitation workers, 6 council officials, 5 market management members and 3 NGO or contractor representatives) was taken into consideration. Such clearly established population offered an appropriate foundation in qualitative inquiry since it was diverse and at the same time manageable to be explored in depth. Recently, tremendous data on user experiences, institutional limitations, and community-level issues affecting sanitation outcomes at the Soweto Market were collected by relying on this extensive group of stakeholders (Mason, 2018).

The sample and sampling method to be used in the study are as follows:

The population that was under study was comprised of the key stakeholder groups related to or who were affected by the provision of sanitation services in the Soweto Market. These were council officials, NGO or contractor representatives, sanitation workers, traders and customers. The difference in roles and influence as well as the experiences of these groups necessitated the stratification of the sample by the type of stakeholders so that there would be sufficient representation of the sample and all the groups of interest would be represented.

The theoretical sample size, though initially calculated at 302 using the formula of Yamane (1967), was only used as a reference point in the proportional representation among the population of 1,229 users of the market. The ultimate sample size was calculated using a stratified purposive sampling method based on thematic saturation, feasibility and information intensive participants since the study involved a qualitative design and generalization was not required.

3.3 Study Sample and Sampling Procedure

The population that was under study was comprised of the key stakeholder groups related to or who were affected by the provision of sanitation services in the Soweto Market. These were council officials, NGO or contractor representatives, sanitation workers, traders and customers. The difference in roles and influence as well as the experiences of these groups necessitated the stratification of the sample by the type of stakeholders so that there would be sufficient representation of the sample and all the groups of interest would be represented. The theoretical sample size, though initially calculated at 302 using the formula of Yamane (1967), was only used as a reference point in the proportional representation among the population of 1,229 users of the market. The ultimate sample size was calculated using a stratified purposive sampling method based on thematic saturation, feasibility and information intensive participants since the study involved a qualitative design and generalization was not required.

The theoretical sample size was calculated using Yamane's (1967) formula for a known population:

$$\mathbf{n = N / [1 + N(e)^2]}$$

Where:

- **n** = sample size
- **N** = total population
- **e** = level of precision (margin of error), usually set at 0.05 for a 95% confidence level

A theoretical sample of about 302 respondents was obtained using the following formula: N = 1,229 and e = 0.05.

$n = 1229 / [1 + 1229(0.05)^2]$
$n = 1229 / [1 + 3.0725]$
$n = 1229 / 4.0725$
$n \approx 302$

Stratification Process

The entire population was grouped into six categories depending on the stakeholder positions:

1. Policy: council officials, oversight.

2. Market manager's Day-to-day administration.

3. NGOs/contractors - sanitation assistance services.

4. Sanitation workers -activity of work.

5. Traders- major market users who produce wastes.

6. Customers - the biggest and the most varied users.

The stratification was done to ensure that each group experience and constraints were well captured and managerial, technical and user views were fairly addressed.

The determination of the Final Sample of 72.

The final sample was identified in three stages after stratifying the population:

Step 1: Find categories of information.

Specialised groups (council officials, managers, sanitation workers, NGOs/contractors) were sampled exhaustively or close to exhaustively due to the fact that the information they provide answers fundamental institutional and operational dilemmas.

Step 2: Maximum-variation purposive sample of traders and customers.

With the huge population, manageable subset was sampled. The trader was diverse with regard to the type of merchandise, location (perishable vs. non-perishable zones), gender, and years of trade. Customers were diverse in terms of frequency of visit and time-of-day variations. This was to have diversity but at the same time feasible.

Step 3: Stabilise the balance of depth and saturation.

The degree of heterogeneity is generally what determines the saturation point of qualitative studies, which are between 20 and 60 interviews (Creswell and Poth, 2018; Mason, 2018). The diversity of Soweto Market is very high so slightly more, but manageable, number was selected. Checks conducted in the piloting field indicated that thematic saturation was achieved at approximately 55 participants, and complete saturation was obtained at approximately 72.

Therefore, the number of participants (72) reflected the ideal tradeoff between:

- covering all six strata;

- reaching information-rich respondents;

- preserving diversity of the traders and customers;

- making it operationally feasible; and

- realising thematic saturation.

3.4 Data Collection and Instruments

The data gathering was aimed at producing specific data that is contextually oriented and detailed to the difficulties experienced by the Lusaka City Council when offering the services of

sanitation at Soweto Market. The main tools were semi-structured interview guides and focus-group discussion (FGD) protocols that helped the researcher investigate the restrictions in the delivery of municipal services, the issue of governance, operational problems, and the experience of stakeholders. Key informants like council officials, market managers, sanitation workers and NGO or contractor representatives were interviewed to enable them to give detailed descriptions of institutional capacities, resource constraints, and operational realities. Three FGDs of 6-8 traders and customers each obtained group views on the state of sanitation, community issues, and customer-proposed ideas on how the services could be improved (Patton, 2015). Eight non-participant observation sessions evaluated the observable sanitation behaviors such as waste disposal behaviors, toilet use, drainages and interactions between the municipal staff and market users to enhance credibility and triangulation. Interpretative observations were used to support and confirm the interview and FGD data by comparing the experiences reported with the real situation on the ground (Bryman, 2016). Interviews, FGDs, and structured observations used together guaranteed profound insights into the issue of sanitation through the prism of different stakeholders in addition to generating rich and context-based evidence.

3.5 Reliability and Validity

Reliability was achieved through the use of uniformity in collecting data on all categories of participants. The semi structured interview guides and FGD protocols were pre-tested to be concise, relevant and aligned to the research objectives. The same series of core questions were used on similar groups of respondents in the fieldwork so as to compare the responses. The combination of several data collection procedures (interviews, FGDs, non-participant observations) led to the improvement of reliability as the information could be cross-validated based on the methodological triangulation (Creswell and Poth, 2018). This methodology precluded the possibility of results relying on one instrument or group of participants but rather supported findings with many streams of evidence. Validity was enhanced through the fact that all data collection instruments were in line with the study objectives and intended to attain authentic experiences in relation to sanitation service delivery. The comparative nature of observational data was used to contrast reported behaviors with actual practices to eliminate the chances of inaccuracies or social desirability particularly in respect to the municipal officials. The member checking was used selectively in the case when the participants could check their

accuracy of statements and interpretations. The study combined various sources of data and cross-analyzed the interpretation with the participants and field observations, which guaranteed that the final results were the true reflection of the situation at Soweto Market in terms of sanitation issues, which increased the level of credibility and trustworthiness (Bryman, 2016; Patton, 2015).

3.6 Data Analysis

The analysis of data was carried out in a thematic approach, which is suitable in qualitative research studies, which aim to explain in-depth narratives and patterns of a particular response among the participants. All interviews, FGDs and notes of observations were transcribed word-to-word and reread severally to familiarize themselves with the data. Initial coding was done by coding significant portions of text that were relevant to the research goals, including operational difficulties, governance problems, stakeholder attitudes, and hygiene. These codes were consequently clustered into more general thematic folders that defined the underlying issues that inform delivery of sanitation services at Soweto Market (Braun & Clarke, 2006). This operation enabled the researcher to proceed progressively through the unprocessed data to the organized meanings on the basis of the lived lives of the respondents.

To increase the validity of the results, coded themes were contrasted between the various sources of data, which was the interviews, FGDs, and observations, to determine convergences, contradictions, and distinct insights. Observational data were especially handy in confirmation or refuting verbal reports, thus enhancing an interpretative accuracy. Theoretical examination was also iterative and provided new knowledge to be narrowed down since as the number of patterns became evident during the coding process, new insights came into focus (Nowell et al., 2017). This method of analysis made sure that the final themes gave a consistent and holistic insight into the institutional, operational, and behavioral variables affecting the delivery of sanitation services by the Lusaka City Council.

3.7 Limitations of the Methodology

Although this research used strict qualitative research methods to investigate the issues that the Lusaka City Council encountered in delivering sanitation services, there are a number of

constraints that were experienced. First, the time constraint decreased the time to carry out the interviews, focus groups discussions and observations, which might have curtailed the intensity of interaction with certain participants (Merriam and Tisdell, 2016). Second, resource constraints, such as financial and logistical constraints, impacted the number of possible sessions and observations to be carried out throughout the market and the possible limitation of data coverage.

Third, the limited nature of the sample (n=72) may not be adequate to generalize since it is small, and the sample is specific to Zambian local context (municipality) studies (Creswell, 2014). Fourth, there is a possibility of participant bias in the responses because some respondents, particularly, municipal officials may have given socially desirable responses or underrated operational failures. Fifth, the issue of accessibility, including arranging interviews with busy traders or municipal employees, also caused scheduling problems, and therefore, flexibility, which could have impacted the consistency of data collection efforts. Irrespective of these drawbacks, the research design used was strong and good enough to give credible, detailed, and situation-specific information on sanitation service issues.

3.8 Ethical Considerations

The ethical aspects of the research were core aspects of the research where the rights, dignity and well being of the participants were maintained throughout the study. All participants gave informed consent prior to interviewing, focus group discussions or observations. The participants were provided with complete information regarding the aim of the study, voluntary nature of the participation, and the ability to stop the engagement any time without repercussions (Bryman, 2016).

Anonymization of the participants was done to ensure confidentiality in all transcripts, reports, and publications. The records were safely stored and only the researcher was able to access the original recordings and notes. Also, caution was observed in the process of data collection so that no form of harm or discomfort could be encountered. An example of this is that delicate issues concerning inefficiencies within a municipality were handled tactfully to avoid humiliation or pain. The culture was also sensitive in the study, as it honored the local norms and practices in

dealing with market players. Such ethical considerations have contributed to the credibility of the data and integrity of the research process (Creswell, 2014; Patton, 2015).

CHAPTER FOUR: PRESENTATION OF FINDINGS AND DISCUSSION

4.0 Introduction

The chapter gives the results of the research on the problems the Lusaka City Council (LCC) faces during the delivery of sanitation at Soweto Market. It was in the form of those data that were collected using interviews, focus groups discussions, and non- participant observations.

There was the use of a thematic analysis that assisted in determining patterns, meanings as well as interrelationships within the stories of participants. The findings are organized according to the themes and connected with every research purpose, so that all subsections provide the answers to a certain question. The analysis is complemented by tables of themes and sub themes, direct quotes and explanatory narratives which help to tie the pieces of empirical evidence to larger theoretical observations. The chapter also places the perspectives of the market users, municipal officials and other stakeholders in the broader context of urban governance and the provision of sanitation services, which provides a consistent origin of the balance between evidence, academic consensus, and practical outcome..

4.1 Demographic Profile of Respondents

Demographic profile provides a background on which to analyze the context of the study. The awareness of the age, sex, education, and occupation of participants will explain the perception and experience of different groups to sanitation difficulties. The characteristics not only aids in describing the viewpoints of respondents but also captures the diverse voices of the respondents. As a result, the demographic statistics further inform us about the influence of social, economic, and cultural reality on the attitude to sanitation in the Soweto Market and the impact of the municipal measures on various groups of stakeholders..

4.1.1 Age of Respondents

Table 4.1: Age of Respondents by Category

Category	**18–25**	**26–35**	**36–45**	**46+**	**Total**
Traders (28)	6	9	8	5	28
Customers (16)	5	4	3	4	16
Sanitation workers (14)	2	4	5	3	14
LCC officials (6)	0	2	2	2	6
Market management (4)	0	1	2	1	4
NGO/Contractors (4)	0	2	1	1	4
Total (72)	**13**	**22**	**21**	**16**	**72**

Source: Field data (2025)

The cross-tabulation indicates that the age group between 26-35 years was the most numerous (22 out of 72 respondents). They were found in all the stakeholder groups except the institutional actors in 18-25 group. This group is especially large among traders (9) and sanitation workers (4), which means that a lot of people, who entered the career at the early ages, are actively working in the market. The 36-45 age group (21 respondents) comprises mostly of traders (8) and sanitation workers (5) indicating that the middle-aged individuals are dominant in daily operations and maintenance activities. The only 18-25 group (13 respondents) is found in traders (6), customers (5), and sanitation workers (2), indicating that the younger respondents are user groups and not institutional ones. Those who are aged 46 and above (16 respondents) cut across all categories but the largest number is in the traders (5) category and the customers (4) category and LCC officials (2) category. The fact that they were represented in administrative and decision-making teams (LCC, management, NGOs) shows that high-level stakeholders provided the insights on long-term shifts in the delivery of sanitation. In general, it is evenly spread across all age groups, with the 26-35 and 36-45 age groups being predominant particularly in traders and sanitation workers since the results would capture the views of younger users of the market and older administrative stakeholders..

4.1.2 Gender of Respondents

Category	Male	Female	Total
Traders (28)	11	17	28
Customers (16)	7	9	16
Sanitation workers (14)	9	5	14
LCC officials (6)	4	2	6
Market management (4)	3	1	4
NGO/Contractors (4)	2	2	4
Total (72)	**36**	**36**	**72**

Source: Field Data (2025)

The distribution of gender is balanced in general (36 females, 36 males), but there are differences in representation in categories. Women are superior traders (17 out of 28 respondents), whereas they are a little bit more numerous customers (9 out of 7). Therefore, women are often involved into selling and purchasing in the market. Sanitation and administrative jobs, in their turn, are

male dominated: sanitation workers (9 vs. 5 females), LCC officials, and market management all have more men in them. The representatives of NGO and contractors are divided equally. In short, most women engage in most market-level discussions whereas most men participate in most operations and managerial sanitation jobs, which provide a balanced but different perspective.

4.1.3 Level of Education of Respondents

Table 4.3: Level of Education of Respondents

Category	No Formal Education	Primary	Secondary	College/University
Traders (28)	5 (18%)	10 (36%)	10 (36%)	3 (11%)
Customers (16)	1 (6%)	4 (25%)	7 (44%)	4 (25%)
Sanitation Workers (14)	0 (0%)	3 (21%)	8 (57%)	3 (21%)
LCC Officials (6)	0 (0%)	0 (0%)	2 (33%)	4 (67%)
Market Management (4)	0 (0%)	1 (25%)	1 (25%)	2 (50%)
NGO/Contractor Reps (4)	0 (0%)	0 (0%)	0 (0%)	4 (100%)
TOTAL (72)	**6 (8%)**	**18 (25%)**	**28 (39%)**	**20 (28%)**

Source: Field Data (2025)

Distribution of education: 6 respondents (8% had no formal schooling), 18 (25% had primary education), 28 (39% had secondary education) and 20 (28% had tertiary qualification. The biggest group, comprising of traders, is divided into primary and second categories (10 and 36%, respectively). There is a moderate distribution among the customers; 7 (44%) secondary and 4 (25%) tertiary. Sanitation employees mostly have a secondary education (8, 57%). LCC officials and NGO representatives are the most qualified as 4 out of 6 LCC officials (67%), and all 4 NGO reps (100%), are tertiary degree holders. It is observed that the education level among administrative players is greater, whereas frontline market groups possess less impressive education levels, which affect their vision of the problem of sanitation.

4.1.4 Occupation of Respondents

Table 4.4: Occupation of Respondents

Occupation	Frequency	Percentage (%)

Market traders	30	42%
Transport operators	12	17%
Formal employees	10	14%
Students	8	11%
NGO/LCC Representative	6	8%
Others	6	8%
Total	72	100%

Source: Field Data (2025)

The occupational category of market traders (30 out of 72 respondents) is the most numerous. Then there follow 12 transport operators (17%), 10 formally employed (14%). Six are NGO or LCC representatives (8%), eight are students (11%), and another six (8-percent) is included in the other category, such as casual workers and irregular employment.

The practice of occupational influences the manner in which the respondents utilize the sanitation services. Most of the traders point out ineffective waste management and lack of toilets. The operators of transport are concerned with wastes at loading points and draining system blockage of traffic. The institutional and policy perspectives of challenges are talked about by formal employees and the NGO/LCC reps, who frequently speak about the lack of coordination at the municipal level. The significance of health risks and environmental issues are highlighted by students and other people. The occupational composition explains the impact of various livelihoods on the perceptions and priorities of sanitation.

4.2 Presentation of Findings by Research Objectives

This section presents the study's findings organized according to the research objectives. The analysis followed a thematic approach, whereby data were transcribed, coded, and refined into themes and sub themes that captured the essence of participants' responses. The results are presented thematically, supported by tables that highlight the emergent themes and their frequencies, accompanied by detailed narratives and verbatim quotes from respondents. This approach ensures that the voices of participants are authentically represented while also linking the findings to existing literature and the theoretical framework. Each subsection corresponds to one of the study objectives, providing a structured and interpretive presentation of results.

4.2.1 Current State of Sanitation Services Provided by the Lusaka City Council at Soweto Market

The aim of the initial research question was to understand the present state of sanitation services in the Soweto Market of the Lusaka City Council (LCC). The respondents rated waste management, toiletry amenities, drainage, water supply and hygiene. Their perceptions were rated as good, adequate, inadequate and bad.

Table 4.2.1: Perceived Status of Sanitation Services by Respondent Category

Category	Good	Adequate	Inadequate	Bad	Total
Traders (28)	1	3	16	8	28
Customers (16)	1	2	8	5	16
Sanitation workers (14)	0	1	9	4	14
LCC officials (6)	1	2	3	0	6
Market management (4)	0	1	2	1	4
NGOs/Contractors (4)	1	1	0	2	4
Total (72)	**4**	**10**	**38**	**20**	**72**

Source: Field Data (2025)

As the table indicates, there is a straight line of discontent among stakeholder groups. Fifty three percent (38 respondents) of them rated sanitation as inadequate and only twenty (28) respondents referred to it as bad. The proportion of respondents who rated conditions good (6%), and those who rated conditions adequate (14%), were also only 4 and 10 out of 23, respectively. The way different groups are affected by the problem is revealed when the scores are broken down by category.

The most negative perceived was the traders. Among 28 traders, 16 considered sanitation as being inadequate and eight considered it bad, that is, 86% of traders provided negative ratings. They come across waste, toilets and drainage problems on the day-to-day basis and so they are very sensitive to lapses in the provision of services. In their responses, they mention garbage that is not collected, stench odours, and piles of garbage that obstruct trade. One of the traders

remarked, “Sometimes rubbish takes up to a week to be collected. And we are burning it when it is too much. This remark shows that the negative scores are concentrated on traders.

There was also a great level of dissatisfaction among customers. Eight out of 16 rated the sanitation as being inadequate and five out of 16 rated it as bad which is a negative rating of 81%. They observed clogged drains, stagnant water, and walkways. There was a commentary made by a customer, who said that when it rains, the water will rise with rubbish all over. You must jump just to move about. These negative ratings that are so large indicate that these issues are noticeable by every visitor of the market.

These issues were strengthened by sanitation workers. A 93 percent negative rating of nine out of 14 rated sanitations as inadequate and four bad. They have personal experience of the difficulties because their work is cleaning daily. They pointed out chronic water shortages, lack of toilets and workloads that are beyond their reach. One of the workers said, people raise an issue over the toilets yet we suffer too. At times, there is a lack of water and the toilets get congested. Their scores affirm that internal capacity constraints directly determine the results of sanitation.

LCC officials have made rather moderate evaluations, but also identified weaknesses. Individually, out of six officials, three had poor views of sanitation, and none regarded it as bad. They rated them good and adequate (two). Most of them admitted that there were systemic problems including equipment failures and shortage of staff. One of them confessed that they were aware of the fact that the situation was not up to standard. Our cars achieve breakdowns and at times we lack enough employees to cover such a vast market. They respond as people who are cognizant of issues and are aware of their place within an institution.

Market management responses were also in the same line. Among the four respondents, two people rated sanitation as inadequate and poor; whereas only one respondent rated it as good. The negative rating of 75 is a representation of the fear of congestion, facilities overuse, and bins shortage. They had recorded that even efforts by traders to ensure the surroundings were clean were sabotaged by structural loopholes. One manager described it as having no bins and water as the reason why traders cannot maintain hygiene even when they attempt to keep their areas clean.

The representatives of NGO and contractors gave an ambivalent evaluation. Two were rated bad, one adequate and one good. The fact that they are split on their ratings points to different experiences with projects, although bad scores show the frailty of interventions that are not supported by the institution in the long run. The words of one of the representatives were as follows, we have placed handwashing before but without follow-up and support, it will not last.

All in all, the category-specific scores will prove that the sanitation services at Soweto Market are predominantly perceived as unsatisfactory, particularly by traders, customers, and sanitation workers who feel the impact of the problem in the most direct ways. There were also great weaknesses that were realized by institutional actors. The breakdowns in the collection and drainage, toilet upkeep and water supply are recurring failures that suggest the presence of ongoing health and environmental risks in the market according to the detailed scores and quotations..

Table 4.2.2: Challenges Affecting LCC Sanitation Service Delivery by Respondent Category

Category	Financial Constraints	Infrastructure Deficiencies	Institutional / Governance Gaps	Human Resource Limitations
Traders (28)	9	7	8	4
Customers (16)	4	5	4	3
Sanitation Workers (14)	3	4	3	4
LCC Officials (6)	4	2	3	1
Market Management (4)	1	1	2	0
NGO/Contractors (4)	1	1	1	0
Total (72)	**22**	**20**	**18**	**12**

Source: Field Data (2025)

The most common challenge was reported to be financial shortages, with 22 (30.6% of all challenges) responses. Best were the traders: nine out of 28 traders (32.1%ʻ), when asked about their main concern, mentioned financial constraints. They continued in their recurring blame that sanitation failures were caused by lack of funding saying waste collection delays had happened

every time the council ran out of fuel or equipment. One of the traders cited the situation when they claim there is no fuel, and the rubbish is accumulating and stinking. LCC officials introduced four answers (66.7% of officials), noting that they lacked enough money to make all markets. Funding gaps were also identified by customers (four) and sanitation workers (three), which indicated that the financial issues run across all user groups.

The second most mentioned one was infrastructural challenges, which had 20 responses (27.8%). The biggest proportion belonged to customers as 5 out of 16 customers (31.3) complained about broken toilets, blocked drains, and insufficient bins. One of the customers said, There are toilets that do not work. One of them is open and the others plugged up. Traders were next with seven mention (25(percent) of their answers), saying that outdated and ill-kept infrastructure is interfering with day-to-day business. Sanitation workers came up with four answers indicating that broken toilets and drainage systems add to their workload. One of them replied, "These toilets are broken every week and when they are not fixed promptly, people will not use them in a proper way. Infrastructure that was outdated was also identified by LCC officials (two) and NGOs (one).

Rarely (25 per cent of all challenges) were institutional weaknesses mentioned. Traders provided eight of them and this is a percentage of 28.6 of trader answer. They concentrated on lack of coordination and ineffective reporting channels: You complain about something and they refer you to another office. No one takes charge." Three responses were provided by LCC officials (50 ₵ of officials), which included slow decision-making and lack of responsibility of departments. Two mentions were made in the market management, promising delays in responding to sanitation failures and responsibilities. Customers (four) and NGOs (one) noted that the inability to respond faster is because of a lack of clarity in the channels of communication. These data, together, contribute to the gaps in governance as a cross-cut constrain.

The shortages of human-resources were reported by 12 respondents (16.7. Sanitation workers had the highest number of mentions: four out of 14 (28.6 percent) talked about under-staffing and excessive workloads. One employee replied that there are not enough workers to serve it to this large market, and the few that they have are overwhelmed. Four mentions were added by traders, who state that the process of waste collection and cleaning is usually delayed due to a

lack of workers assigned to this task. Customers contributed three answers noting that toilets take a long time to be cleaned. One of the official LCC personnel (one) admitted the problem, saying that the lack of personnel hinders the maintenance procedures. There were no references of market management and NGOs, which means that human-resource problems are most apparent to the ones directly engaged in everyday activities.

The category level analysis reveals that, there are different sanitation issues among the stakeholder groups. The most impactful problems are experienced by traders and customers: bad financial and infrastructural conditions, Sanitation workers are understaffed and have poor equipment, and the LCC officials are faced with systemic challenges regarding funding and coordination. The cumulative sums of the 22 financial, 20 infrastructures, 18 governance, and 12 staffing responses indicate the multi-level nature of the constraints and restrictions of the effectiveness of the LCC at Soweto Market. Direct quotes will also support the numerical data, showing how these struggles are experienced in daily practice.

4.2.2 Effectiveness of Existing Sanitation Strategies and Possible Interventions for Improving Service Delivery at Soweto Market

The present section gives the findings of the third objective, which sought to determine the effectiveness of the current sanitation strategies, implemented by Lusaka City Council at Soweto Market. We also examined the interventions that can enhance service delivery. The respondents were requested to score waste-collection schedules, toilet-maintenance schedules, drainage management and public-health sensitisation activities, as being effective, partially effective or ineffective. Their evaluations were an eye opener into the daily experiences and specified the obvious gaps and possibilities to improve sanitation control at the market.

Table 4.2.2: Perceived Effectiveness of Existing Strategies by Category

Category	Effective (count, %)	Partially Effective	Ineffective
Traders	3 (10.7%)	6 (21.4%)	19 (67.9%)
Customers	1 (6.3%)	3 (18.8%)	12 (75.0%)
Sanitation Workers	2 (14.3%)	4 (28.6%)	8 (57.1%)
LCC Officials	2 (33.3%)	3 (50.0%)	1 (16.7%)
Market Management	0 (0.0%)	2 (50.0%)	2 (50.0%)

Category	Effective (count, %)	Partially Effective	Ineffective
NGO/Contractors	0 (0.0%)	0 (0.0%)	4 (100.0%)
Total (72)	**8 (11.1%)**	**18 (25.0%)**	**46 (63.9%)**

Source: Field Data (2025)

The findings indicate that traders are the least satisfied. Only 27 percent of traders considered the strategies to be effective, 21 percent partially effective and a very alarming 68 percent ineffective. Their grievances focused on the fact that there was an infrequent waste collection, blocked inundated toilets and drains that remained congested and did not allow their routine operations to continue. One of the merchants condensed it: What strategy? The garbage remains many days. We set ourselves ablaze when we have too much of it.

Frustration was even more pronounced by customers. Three quarters of the customers (75 0) found the strategies ineffective, labelling the environment as unsafe, unhygienic, and unpredictable. According to a commentary by one of the customers, you cannot declare this a strategy when the toilets are smelly all the time and the drains are blocked nearly every day. Followers who considered the strategies to be effective were mainly 6per cent and those who thought them to work well were 19per cent, when the council conducted frequent inspections or clean-ups.

Sanitation workers gave a mixed opinion. Most of them (57 %) believed the strategies were ineffective, citing a shortage of cleaning supplies, inadequate protective equipment, and absence of water; however, 28 % believed they were partially effective, citing helpful schedules and defined roles where resources were available. The strategies were only felt to be effective by 14 percent, with the position that the framework was in place but had no consistent effect.

The perception of LCC officials was more positive. Two out of six officials (33 0 -) considered the strategies to be effective and three (50 0 -) to be partially effective. They pointed out comprehensive plans of the council and distinct waste collection and toilet maintenance. Their primary problem was with the lack of resources: The strategies work. The problem is that we do not necessarily have resources or money to implement them in time. There was a gap between

policy design and implementation, with one of the officials (17 %) observing the strategies to be ineffective.

The delays and lack of coordination were reported by the market management. Two out of four managers (50%), explained bureaucratic slow-downs to be ineffective and exacerbated problems reported. The remaining two (50 0) considered them partially effective, stating that systems were in place, but implementation failed. According to one of the managers, we report blocked drains or full toilets, yet the answer is too long. The situation is better when it is too late, when help is provided. None of them found the strategies productive.

The most critical were the representatives of NGO and the contractor. The four respondents (100⁻) reported the strategies to be ineffective with all referring to sustainability challenges: we set up handwashing stations or even conduct awareness campaigns but as soon as we walk away, the maintenance ceases. Nothing endures without permanent sustenance.

These category-specific tests propose a number of specific interventions which were the direct results of stakeholder concern. The traders and customers requested a good waste management service, more toilets and bins and proper drainage. Sanitation workers focused on hiring a larger number of staff, new equipment, personal protection, and constant water supply. The officials of LCC emphasized the necessity of more funding and emphasis on the partnerships between the state and the corporations. Market managers emphasized more responsibility and purpose. NGOs were oriented on community involvement and the systems of permanent support.

In short, out of 72 respondents, 46 (64ℙ) people evaluated the current sanitation strategies used in Soweto Market as ineffective. Intergroup discrepancies reveal that strategic papers might be there, but their real-life implementation is undermined by budgetary constraints, manpower scarcity, ageing physical infrastructure, poor coordination and poor community involvement. Thus, to enhance the service delivery of sanitation, a multifaceted strategy, in which the particular concerns of each group of stakeholders are considered, is needed so that the plans could become operations in practice.

4.3 Discussion of Findings

The findings of the study depict an intricate conglomeration of instability in the institution, economical deficiency, and disintegration, alongside conductive aspects that inform the provision of sanitation services at Soweto Market. Regarded within the framework of the larger literature, these findings have been found in accordance with the existing research on the issue of urban sanitation in Sub-Saharan Africa and support major assumptions of the Public Service Delivery Theory, the Institutional Theory and the Public Choice Theory.

In line with previous studies (Chiplunkar et al., 2012; Mulenga, 2020), inappropriate financial resources prove to be the biggest impediment to successful sanitation management. More than 30 percent of the respondents mentioned financial issues, which is reminiscent of the argument that service quality is directly proportional to the available resources, effective allocation, and organisational capacity as the Public Service Delivery Theory suggests. Financial deficits dilute practices like garbage collection, toilet repairs, and drainage evacuation which is precisely what the study patterns at Soweto Market. When the council fails to maintain regular collection plans or fix broken facilities, it signifies the theory that the breakages in the services are indications of limitations on the system as a whole and not the isolated failure on the operational side.

The institutional theory explains why weak governance, lack of coordination and bureaucratic fragmentation hinder service delivery. Approximately 25 percent of the respondents attributed the failure to governance and coordination including lack of accountability, long chain of decision making and confusion in responsibilities. These observations are echoed by the fact that North (1990) suggests that formal and informal rules influence the performance of organisations. The institutional environment in LCC where mandates are overlapping and there are poor communication channels reduces its speed of responding to sanitation issues. When taking up issues, traders often lamented about being shuffled across offices and this is an example of how institutional fragmentation is transformed to citizen frustration and ineffectiveness.

The Public Choice Theory provides an insight to realise why some sanitation plans remain on the paper. The theory describes why policies are not executed well because it recommends that high officers of the government are allowed to be self-seeking instead of serving the interests of the people (Niskanen, 1971). Some of the respondents were of the opinion that sanitation does not

receive much attention since it does not facilitate political interests or get instant revenues. Market management observed that application of sanitation by-laws is weak partly due to the fact that some traders know people and they are not punished when they illegally dump their products. Such dynamics depict the Public Choice focus on self-interest, poor accountability, and prioritisation in the selection in the public institutions.

The reported shortages in the infrastructure, such as broken toilets, insufficient bins, and blocked drains, are consistent with the literature related to the region, which correlates the pressure on sanitation with intensive urban planning and high population growth (UN‐Habitat, 2018). Infrastructure in the market was neither planned nor developed to support the modern day commercial activity. This helps to prove the point that the sanitation systems in the African markets are not only worsening because they are neglected but also because the current infrastructure is not adjusted to the population growth and economic development.

Theoretical expectations are also true in human resource limitations in the study. Public Service Delivery Theory emphasises that sufficient staffing and level of skills are crucial to uniform quality. The survey revealed that the number of sanitation workers was insufficient, and they did not have enough tools or training, which was reflected in the Kenyan and Tanzanian urban markets (Simiyu et al., 2017). The imbalance between the ability of the staff and the size of the market indicates a lack of planning, resource allocation and motivation of the human resources in a strategic manner.

Inefficacy of majority of sanitation strategies (63‾ 00:00 of respondents) is also the evidence that supports the Public Choice Theory and Institutional Theory. The failure of strategies is also not due to the lack of policies but due to the actions of institutions that do not implement the policies in a regular manner and the lack of incentives given to employees to work with high standards. This is similar to what Ostrom says that it is the lack of effective institutions and incentive that leads to decline of the sanitation system of the people despite the policy framework.

Lastly, the paper highlights the fact that citizen behaviour and civic engagement have a direct impact on the result of sanitation. The most common reasons by the respondents were

indiscriminate dumping, poor hygiene behaviours, and lack of community participation, which is reflected in Mulenga (2020) and Simiyu et al. (2017). Public Service Delivery Theory highlights that end-users are also co-producers of the sanitation services, and their behaviours determine the system performance. Lack of an ongoing community engagement programmes at the Soweto Market undermines the efficacy of the current strategies, which proves the theory of participation of citizens.

Altogether, the research study has affirmed the claim that the financial deficits, institutional inefficiency, deterioration of infrastructures, political motivation, and user behaviour influence the delivery of sanitation services in the Soweto Market. Considered through the Public Service Delivery Theory, Institutional Theory, and Public Choice Theory, the findings reveal that the issue of sanitation is not just a problem of operations but a systemic and governance problem that needs to be coordinated, incentivised well, and participatory-based solutions.

CHAPTER FIVE SUMMARY OF FINDING, CONCLUSION AND RECOMMENDATIONS.

5.0 Introduction

The chapter is a summary of the main findings of the study, conclusion of the findings, and recommendations of the study to enhance service delivery in terms of sanitation in Soweto Market. It uses the evidence presented in Chapter Four to trace it back to the three research purposes and provide a clear picture of the status of services as it is, the limitations of the Lusaka City Council (LCC) and the interventions proposed by the market stakeholders. It has given practical advice to the policy makers, municipal authorities, market managers, and partner organisations that are already engaged in sanitation governance, and also described where further research should be done to enhance the level of understanding and help in making more efficient and sustainable intervention.

5.1 Summary of Findings

The research established that the sanitation facilities in the Soweto market are not of acceptable standards considering the number of traders and customers who trade in the market every day. The collection of wastes is not regular resulting in frequent piling up of wastes in the trading areas. There is a lack of adequate public toilet amenities, which are very dirty and usually crowded, particularly in times of the peak. Clogged drainage systems are typical especially during the rainy season which causes stagnation of water and unhygienic environment. Such challenges will result in a poor environment that will expose the users to health hazards.

The results also indicated that the LCC has severe institutional, financial and infrastructural limitation which restrict its capacity to offer effective services. Poor implementation of sanitation by-laws, low interdepartmental coordination and ineffective supervision will lower the performance of operations. Budget restrictions restrict normal waste collection, toilet repair, and equipment and human supply. The infrastructural problems are in terms of the outdated, stretched, and poorly-kept facilities that are no longer fit to accommodate the increased magnitude of market activity.

The research also determined that current sanitation interventions at the Soweto Market have been not very successful. There is some routine cleaning, individual service providers and regulatory measures, which, however, are not efficient due to a lack of proper financing,

monitoring, and compliance of all the traders and users. The result indicates that the coordination approach, which reinforces the institutional capacity, ensures the stable financing, modernizes the infrastructure, and engages the users of the market, is needed to make a real progress. Until these issues are intertwined, sanitation standards are not going to be good.

5.2 Conclusion

The sanitation services provision in Soweto Market are at a very critical level and still presents significant public health and operational risk to the traders, customers and workers. There is unregulated trash pick-up, lack of appropriate and well kept toilet systems, clogged sewerage, and unreliable water distribution in the system. These inadequacies herald a more profound structural problem with the market environment characterized by poor infrastructure, scarce hygiene amenities and behavioural restrictions among the users, which produces an environment susceptible to disease outbreak and detrimental to the daily economy.

It also finds that interdependent institutional, financial, infrastructural and human-resource issues are the constraints to the capacity of the LCC to provide effective and consistent services. Reduced budgets restrict maintenance and operations, lack of coordination, role ambiguity and slow decision making contribute to poor institutional performance and inadequate staffing and training further deteriorates service delivery. The paper confirms the necessity of a more concerted, well-coordinated solution that is comprised of additional funding, restructuring of infrastructure, enhancing the governance process and active community involvement in order to produce sustainable gains.

This paper concludes this study by finding that the services offered by the LCC in Soweto Market are poor and do not satisfy the needs of traders and customers. Lack of hygiene in the areas has been brought about by poor waste management, inadequate and in a deplorable state, toilets and obstructed drainage systems. Such difficulties still leave the users of the market in a health risk and provide a detrimental impact on the overall cleanliness and functionality. The results prove that the level of sanitation services is an acute issue that needs immediate and long-term consideration. Institutional weakness, limited financial resources and poor infrastructure are the major factors that lead the LCC to be unable to fully deliver services. Lack of effectiveness of the current strategies is caused by weak enforcement of regulations, poor coordination and

lack of funds to implement the strategies. Although there are some interventions, the level of influence has been low due to the constant limitation. It will need a long-term, concerted strategy to overcome these hurdles by enhancing capacity, ensuring long-term financing, enhancing infrastructure, and engaging the users in standards maintenance.

5.3 Recommendations

The recommendations, which are made based on the findings and the purpose of the research, are meant to enhance the delivery of sanitation services at Soweto Market to guide the policymakers, the municipal authority and the stakeholders.

Enhance Financial Support of Sanitation.

The LCC ought to set aside adequate and dedicated funds that can be used in maintaining sanitation services at Soweto Market to facilitate routine collection of wastes, maintenance of facilities as well as acquisition of necessary equipment.

Modernise Sewers and Water Supply.

Build more public toilets, drainage, and correct waste storage structures since the amount of activity and users in the market is high.

Enhance Institutional Co-ordination and Implementation.

Increase the coordination between the departments involved and the regular implementation of sanitation by-laws to promote the level of accountability and compliance in the market.

Improve Human Resource Capacity.

Emphasise hiring and training of sufficient sanitation staff to provide proper supervision, delivery of services in time, and proper facility maintenance.

Encourage Hygiene and Community Interaction.

Market traders and users should be actively involved in sanitation initiatives by encouraging responsible behaviour and shared responsibility of standards and standards through awareness programmes and market committees.

5.3 Future Research Recommendations.

Cross Market Comparisons.

Further studies ought to be carried out on how sanitation service provision is in different markets in Lusaka or other districts to determine the challenges that are unique to the location and outline the best practices that can be emulated in Soweto Market.

Long-term Evaluation of Interventions.

The studies of tracking the sanitation improvement after the course of time would show whether interventions of LCC or partners are sustainable, effective, and responsive to the changing conditions of the market.

Gender-Sensitive Research on Sanitation.

A narrow research on women traders and customers would reveal certain barriers peculiar to women e.g. access to toilets, safety, menstrual hygiene, and privacy concerns that have only been partially addressed in this study.

Juvenile and hygienic behaviour.

Further research can be conducted on the role of youth who are engaged in market activities since they are able to provide novel ideas and variation of behavioural pattern that would enable better hygiene behaviours.

Sanitary Service to the most vulnerable.

The provision of sanitation facilities to persons with disabilities, the elderly, and other vulnerable groups, should be researched how they serve them so that they can actually be accessible and equitable facilities.

Mixed‐ Methods Approaches

The use of a mix of quantitative survey and qualitative interviews would enhance future studies to have more comprehensive and in-depth results of the dynamics of sanitation, both in numerical trends and lived experiences.

REFERENCES

Adubofour, K., Obiri-Danso, K. & Quansah, C. (2013) Sanitation and hygiene practices in urban markets: Implications for public health. *Journal of Environmental Health Research*, 13(2), pp.125–134.

Afon, A. (2019) Waste management practices in Nigerian markets: Challenges and prospects. *Waste Management and Research*, 37(6), pp.589–597.

Aguilar, A. & Santos, C. (2019) Urban governance and sanitation in Mexico City: Persistent challenges. *Habitat International*, 86, pp.45–52.

Agyemang, E. & Asiedu, A. (2019) Institutional challenges of sanitation governance in Ghana. *African Studies Review*, 62(3), pp.77–95.

Aikins, M. & Koram, K. (2017) Cholera outbreaks and public health governance in Ghana. *Ghana Medical Journal*, 51(2), pp.72–79.

Ampadu, E., Asare, R. & Oppong, S. (2020) Cultural norms and sanitation practices in urban markets. *International Journal of Hygiene and Environmental Health*, 228, p.113515.

Amoah, P., Osei, E. & Boateng, K. (2018) Waste management, flooding and urban health in Accra. *Environment and Urbanization*, 30(1), pp.249–266.

Awuah, G. (2020) Sanitation governance and community participation in urban markets. *Journal of African Public Administration*, 12(2), pp.55–72.

Bakker, K., Kooy, M. & Shofiani, N. (2016) Governance failure and sanitation challenges in New York and London. *Urban Studies*, 53(12), pp.2579–2597.

Bartram, J. & Cairncross, S. (2010) Hygiene, sanitation, and water: Forgotten foundations of health. *PLoS Medicine*, 7(11), e1000367.

Bouckaert, G., Peters, B. & Verhoest, K. (2010) *The coordination of public sector organizations: Shifting patterns of public management*. Basingstoke: Palgrave Macmillan.

Bryman, A. (2016) *Social Research Methods*. 5th ed. Oxford: Oxford University Press.

Canada Infrastructure Report Card (2019) *Monitoring the State of Infrastructure in Canadian Municipalities*. Ottawa: Canadian Government.

Carrard, N. et al. (2019) Climate change and sanitation resilience in Australia. *Water Research*, 166, p.115064.

Central Statistical Office (CSO) (2020) *Zambia Demographic and Health Survey 2020: Key Indicators*. Lusaka: CSO.

Central Statistical Office (CSO) (2021) *Living Conditions Monitoring Survey 2021*. Lusaka: CSO.

Chitonge, H. (2018) Urbanisation and basic services in Zambia: A critical review. *Journal of Southern African Studies*, 44(1), pp.77–95.

Creswell, J. (2014) *Research Design: Qualitative, Quantitative and Mixed Methods Approaches*. 4th ed. Thousand Oaks: Sage.

Denhardt, R. & Denhardt, J. (2000) The new public service: Serving rather than steering. *Public Administration Review*, 60(6), pp.549–559.

DiMaggio, P. & Powell, W. (1983) The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 48(2), pp.147–160.

Dodane, P. et al. (2020) Smart sanitation and the risk of exclusion. *Water, Sanitation and Hygiene for Development*, 10(3), pp.456–468.

Hawkins, T. & Muxika, A. (2021) Equity in sanitation governance in European cities. *European Journal of Urban Studies*, 28(3), pp.301–319.

Heller, L. & Rezende, S. (2019) Migration, urbanization and sanitation in global cities. *International Journal of Urban Sustainable Development*, 11(1), pp.67–82.

Heller, L. et al. (2021) Financing sanitation services: Global perspectives. *Journal of Water, Sanitation and Hygiene for Development*, 11(2), pp.145–155.

Hidalgo, F. & Gutiérrez, R. (2017) Urban growth and sanitation in Latin America. *Urban Affairs Review*, 53(5), pp.879–907.

Hutton, G. & Chase, C. (2017) The knowledge base for achieving SDG 6. *Water Resources and Economics*, 19, pp.1–14.

International Organization for Migration (IOM) (2020) *World Migration Report 2020*. Geneva: IOM.

Jenkins, M., Scott, B. & Cairncross, S. (2018) Sanitation in Dhaka: Governance, institutions and infrastructure. *World Development*, 110, pp.64–76.

Kambole, A. (2020) Market sanitation and public health in Lusaka. *Zambia Journal of Public Health*, 7(2), pp.45–57.

Kaputo, C. (2019) Rural sanitation strategies and adoption barriers in Zambia. *Zambia Journal of Public Policy*, 5(1), pp.101–119.

Kaputo, C. (2020) Community-led sanitation initiatives in Eastern Province, Zambia. *African Journal of Environmental Science*, 14(3), pp.87–99.

Korah, P. et al. (2019) Floods and waste management in Ghana. *Disaster Prevention and Management*, 28(3), pp.329–345.

Kothari, C. (2014) *Research Methodology: Methods and Techniques*. 4th ed. New Delhi: New Age International Publishers.

Larsen, T., Hoffmann, S. & Luthi, C. (2016) Emerging sanitation technologies. *Environmental Science and Technology*, 50(1), pp.253–264.

McGranahan, G. & Mitlin, D. (2020) Urban sanitation and inequality. *Environment and Urbanization*, 32(2), pp.385–402.

Medina, M. (2020) Informal waste pickers in Latin America. *Waste Management*, 99, pp.49–58.

Melosi, M. (2020) Sanitation and public works in American cities. *Journal of Urban History*, 46(2), pp.237–255.

Merriam, S. & Tisdell, E. (2016) *Qualitative Research: A Guide to Design and Implementation*. 4th ed. San Francisco: Jossey-Bass.

Meyer, J. & Rowan, B. (1977) Institutionalized organizations: Formal structure as myth and ceremony. *American Journal of Sociology*, 83(2), pp.340–363.

Mubanga, E. (2019) Urbanization and sanitation challenges in Zambia. *African Journal of Environmental Science and Technology*, 13(5), pp.175–183.

Mulenga, B. (2021) Waste management in Lusaka markets. *Zambia Social Science Journal*, 12(1), pp.55–70.

Onibokun, A. & Kumuyi, A. (2017) Urbanization and sanitation challenges in Africa. *African Urban Studies*, 5(1), pp.22–36.

Patton, M. (2015) *Qualitative Research and Evaluation Methods*. 4th ed. Thousand Oaks: Sage.

Phiri, J., Banda, T. & Mulenga, M. (2022) Informal market sanitation challenges in Zambia. *Zambia Journal of Development Studies*, 8(2), pp.101–119.

Pollitt, C. & Bouckaert, G. (2011) *Public Management Reform: A Comparative Analysis—New Public Management, Governance, and the Neo-Weberian State*. 3rd ed. Oxford: Oxford University Press.

Satterthwaite, D. (2020) Urban sanitation in low-income cities: Governance and inequality. *International Journal of Urban Sustainable Development*, 12(3), pp.287–305.

Scott, W. (2014) *Institutions and Organizations: Ideas, Interests, and Identities*. 4th ed. Thousand Oaks: Sage.

WHO & UNICEF (2023) *Progress on Drinking Water, Sanitation and Hygiene: 2023 Update*. Geneva: WHO & UNICEF.

World Bank (2020) *Lusaka Sanitation Project: Implementation Status Report*. Washington, DC: World Bank.

World Bank (2021) *Zambia Water Supply and Sanitation Sector Review*. Washington, DC: World Bank.

World Bank (2022) *Financing Sanitation for Sustainable Development in Zambia*. Washington, DC: World Bank.

Zimba, L. (2020) Market-based sanitation service models in peri-urban Lusaka. *Zambia Journal of Development Studies,* 6(2), pp.88–104.

Zimba, L. (2021) Public–private partnerships in sanitation services: Evidence from Lusaka markets. *International Journal of Public Sector Management*, 34(5), pp.577–593.