MUNHUMUTAPA SCHOOL OF COMMERCE

DEPARTMENT OF ACCOUNTING AND INFORMATION SYSTEMS

INFORMATION AND COMMUNICATION TECHNOLOGY AND REVENUE COLLECTION: A CASE OF CITY OF MASVINGO

BY

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Submitted in partial fulfilment of the requirements for Master of Commerce Degree in Professional Accounting and Corporate Governance

Masvingo

December, 2023

Release Form

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NAME OF AUTHOR: **Tinashe Chamwaita**

TITLE OF PROJECT: INFORMATION AND COMMUNICATION TECHNOLOGY AND REVENUE COLLECTION: A CASE OF CITY OF MASVINGO.

PROGRAMME FOR WHICH PROJECT

WAS PRESENTED: Master of Commerce Degree in Professional Accounting and Corporate Governance

YEAR GRANTED: *2023*

SIGNED   **:**

PERMANENT ADDRESS: Mucheke, Masvingo

DATE: December, 2023

Approval Form

GREAT ZIMBABWE UNIVERSITY

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27 Feb 2024

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EXTERNAL EXAMINER
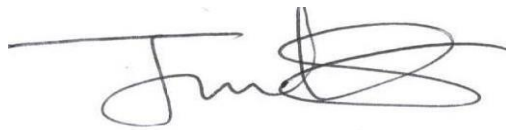
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DECLARATION FORM

I, Chamwaita Tinashe do hereby declare that this research project is to the best of my knowledge, my original work except to the extent indicated in the citations, references and by comments included in the body of the report, and that it has not been submitted in part or in full to any other university or any other institution of higher learning.

Tinashe Chamwaita   27 December 2023

Student Signature:

DEDICATION

This research is dedicated to my wife Elizabeth, my children Chloe, Delan and Audrey and most importantly The Almighty. To my wife and kids I cherish your support during the one and half year of studying this programme.

Abstract

The study sought to evaluate the effect of Information and Communication Technology on Revenue collection for the City of Masvingo local authority. In this study, research participants were from three departments in the local authority. For the Chamber Secretary Department, the sample was 9 employees. For the Finance Department, the sample was 18 employees. The sample also had three employees in the ICT Department. A random sample of the calculated number of employees was selected from each department. Questionnaires and interviews were used as research instruments. The study showed that those employees have varying perspectives on the impact of implementing online payment systems on payment processes. Some employees view online payment systems positively, citing improvements in speed and efficiency due to reduced paperwork and physical visits. However, others hold a more neutral stance, acknowledging the convenience while mentioning occasional technical glitches and the need for increased awareness. The research findings indicate that the implementation of online payment systems has had a positive impact on facilitating quick payment processes for the City of Masvingo. The study recommends education and training programs to ensure that employees and customers understand the benefits and processes of online payment systems. The study also recommends the enhancement of communication and awareness by implementing regular reminders through SMS, email, or postal notifications. Finally, the study recommends investing in modern and reliable software solutions specifically designed for record-keeping.

Acknowledgements

I wish to acknowledge the assistance I receive from the following people who made it possible for this document to be put together.

My Supervisor Mr Phiri for the unwavering support,

Work and school colleagues also helped very much in the project.

Table of Contents

List of figures

List of appendices

CHAPTER I

INTRODUCTION

1.0 Introduction

Revenue collection is a critical aspect of municipal governance, enabling local authorities to finance essential services and infrastructure development (Garaiza, 2014). Municipalities worldwide face challenges in effectively collecting revenues (Chisango, et al., 2023), often due to out-dated and inefficient systems. Mutandwa (2020) argues that the advancements in technology in recent years provide opportunities for municipalities to improve revenue collection processes and enhance financial sustainability.

This study focuses on investigating the relationship between Information and Communication Technology (ICT) and Revenue collection in local authorities, with a specific case study of the City of Masvingo. The study aims to investigate the existing revenue collection processes and systems in the local authority, identify potential ICT interventions that can enhance revenue collection, assess the effectiveness and impact of these ICT interventions on revenue collection, and provide recommendations for implementing and improving ICT-driven revenue collection systems in municipalities. The subsequent sections of this chapter will elaborate on the research objectives, significance of this study, assumptions of the study, delimitations and limitations of the study. It will provide a comprehensive framework for the investigation of the role of ICT in the revenue collection process of Masvingo local authority.

1.1 Background of the Study

At the broadest level, local authorities play a vital role in maintaining civic infrastructure and delivering essential services to the public. One crucial aspect of their functioning is revenue collection, which allows them to finance these services effectively. However, the traditional methods of revenue collection employed by local authorities have often proven to be inefficient and prone to errors, leading to revenue leakage and hindered fiscal sustainability.

Information Communication Technology (ICT) has offered new opportunities to enhance revenue collection processes within local authorities (Senaji, 2020). The United States pioneered ICT techniques for revenue collecting applications, which later spread to developing countries (Achieng, et al., 2022). ICT has completely changed how organizations operate, given them a competitive edge, and improved the efficiency of revenue collection. The implementation of innovative ICT solutions such as online payment platforms, mobile applications, and data analytics tools has streamlined collection procedures, reduced

administrative burdens, and improved overall revenue outcomes, globally (Owens, et al., 2019).

In light of the aforementioned, Panday (2020) claimed that ICT adoption through system automation in India has been deemed suitable for acquiring greater efficiency with the accumulation of street parking fees that increase income. According to Wasilewski (2018), automation in Japan has a markedly favourable influence on reducing the high cost, time inefficiency, and ineffectiveness of manual tax administration and revenue collection procedures, as well as corruption, delays, and calculation errors. According to the researcher, automation can increase efficiency and effectiveness in terms of clearance times and revenue collecting costs.

Numerous studies have emphasized the increasing significance of ICT in the operations of local authorities. Researchers have documented the transformative power of ICT in improving efficiency, streamlining administrative processes, and enhancing citizen engagement within local government agencies. Smith and Johnson (2017) highlighted how the implementation of digital tools facilitated the automation of routine tasks, resulting in reduced bureaucratic hurdles and improved service delivery. This resulted in time and cost savings for both local authorities and the citizens they serve. Additionally, Brown and Davis (2018) conducted a comprehensive examination of ICT adoption in local governments and found that embracing innovative technologies led to enhanced transparency and accountability, as well as increased citizen trust in the administration.

In a similar vein, White et al. (2019) explored the impact of ICT in strengthening citizen participation in local decision-making. Their findings revealed that digital platforms, such as online forums and mobile applications, offered citizens greater accessibility and convenience to engage with local authorities, leading to a more inclusive and participatory governance process.

Furthermore, several scholars have stressed the importance of ICT in effectively managing and utilizing vast amounts of data within local authorities. Johnson and Smithson (2020) noted that adopting data-driven decision making approaches facilitated evidence based policy formulation and supported informed decision making within local government agencies.

Overall, the body of literature suggests that ICT plays a significant role in enhancing the efficiency, transparency, citizen engagement, and data management capabilities of local authorities. However, while these studies provide valuable insights, there remains a need for further investigation to understand the specific challenges, barriers, and factors influencing successful ICT implementation in local government settings. This study aims to fill this gap by examining the current state of ICT adoption in local authorities and identifying key strategies for leveraging ICT tools to improve overall governance outcomes.

Revenue collection in local authorities has been a topic of on-going concern for scholars and researchers. Several studies have highlighted the challenges and issues surrounding the revenue collection process, which often has far-reaching implications for the financial sustainability and effective governance of local authorities. One prominent concern raised by scholars is the inefficiencies and ineffectiveness in revenue collection systems. A study conducted by Johnson et al. (2018) found that many local authorities struggle with outdated and manual methods of revenue collection, resulting in significant revenue leakage and potential loss of vital funds for municipal services. These inefficiencies not only impede the effective functioning of local authorities but also hinder their ability to meet the growing demands and needs of their communities.

Another area of concern identified in the literature is the lack of transparency and accountability in revenue collection practices. Research conducted by Thompson (2017) highlighted that a significant number of local authorities face challenges in ensuring proper financial management, with revenue collection often plagued by corruption and embezzlement. Such practices not only erode public trust but also hinder the potential for socioeconomic development and equitable resource allocation within the local community.

Furthermore, scholars have expressed apprehension regarding the inadequate utilization of revenue collected by local authorities. A study by Roberts et al. (2019) indicated that despite substantial revenue generation, many local authorities struggle to effectively allocate and utilize these funds for essential community projects and services. This lack of proper resource allocation hampers the overall development and welfare of the local community, further exacerbating socioeconomic disparities.

These concerns raised by scholars underline the critical need for comprehensive research and potential reforms to improve revenue collection systems in local authorities. By addressing these concerns, policymakers and local government officials can work towards fostering

greater financial sustainability, transparency, and accountability in revenue collection processes, ultimately enhancing the overall functioning and service delivery of local authorities.

In recent years, there has been a growing body of literature highlighting the link between ICT and revenue collection in local authorities. Scholars from both theoretical and empirical discourse have put forth arguments that emphasize the importance of ICT in enhancing the efficiency, effectiveness, and transparency of revenue collection processes. Theoretical perspectives suggest that the integration of ICT in revenue collection can streamline and automate processes, reducing human error and increasing the accuracy of data. This is supported by Smith (2017), who argues that ICT-enabled systems such as e-payment platforms, online portals, and digital tax filing mechanisms have the potential to significantly improve revenue collection in local authorities. By leveraging ICT, local authorities can overcome the limitations of manual methods, simplifying the payment process for taxpayers and facilitating real-time monitoring and tracking of revenue collection activities.

Empirical studies have also contributed to the discourse by providing evidence of the positive impact of ICT on revenue collection in local authorities. Research conducted by Johnson and colleagues (2019) found that local authorities implementing ICT solutions, such as mobile payment applications and digitized billing systems, experienced increased revenue collection rates and reduced instances of tax evasion. These findings suggest that ICT has the potential to strengthen compliance and improve revenue outcomes, ultimately benefiting the financial sustainability of local authorities.

Moreover, scholars have highlighted the role of ICT in promoting transparency and accountability in revenue collection. By implementing digital platforms and centralized databases, local authorities can ensure greater visibility and traceability of financial transactions. This is supported by Thompson (2018), who argues that technology-enabled systems enable easier auditing, monitoring, and reporting, thereby reducing opportunities for corrupt practices and enhancing public trust in revenue collection processes.

Overall, the arguments put forth by these scholars demonstrate that ICT plays a crucial role in improving revenue collection in local authorities. By embracing and leveraging technological advancements, local authorities can address challenges related to efficiency, accuracy, transparency, and accountability in revenue collection processes, leading to enhanced financial sustainability and effective governance.

Limited attention has been given by scholars regarding the intersection of ICT and revenue collection in Zimbabwean local authorities. The existing literature primarily focuses on broader issues of local government financial management and challenges related to revenue collection, rather than specifically examining the role of technology in addressing these challenges.

A study conducted by Ncube et al. (2017) highlighted that revenue collection in Zimbabwean local authorities is marked by inefficiencies, low compliance rates, and limited financial resources. However, this study did not explore the potential impact of technology on revenue collection processes. Similarly, an analysis by Moyo and Gumbo (2018) discussed the complexities of revenue collection in Zimbabwean local authorities, but did not delve into the opportunities presented by ICT advancements.

The lack of scholarly attention to the role of technology in revenue collection within Zimbabwean local authorities signifies a research gap in the existing literature. Given the rapid advancements in digital technologies, such as mobile payment platforms and digitized accounting systems, it is imperative to explore how these technologies can potentially address the challenges faced by local authorities in revenue collection.

By understanding the potential benefits and challenges associated with the adoption of ICT in revenue collection, policymakers, researchers, and local authorities can develop more informed strategies to enhance revenue collection processes in Zimbabwean local authorities. Additionally, exploring the unique contextual factors and barriers to ICT adoption in the Zimbabwean setting will provide valuable insights for the successful implementation of ICT - enabled revenue collection solutions.

Thus, the present study aims to fill this gap in the literature by investigating the role of ICT in revenue collection within Zimbabwean local authorities, exploring the potential advantages, challenges, and implications associated with its adoption. However, limited attention has been given by scholars regarding the intersection of technology and revenue collection specifically in the City of Masvingo Local Authority. The literature on revenue collection in local authorities in Zimbabwe is generally scarce, and there is a significant research gap when it comes to the specific context of Masvingo.

Scholarly studies focusing on revenue collection have predominantly taken a broader perspective, examining challenges and issues at the national or regional level. For instance, research conducted by Chikanda et al. (2019) discussed the general challenges faced by local

authorities in Zimbabwe in terms of revenue collection and financial management. However, the study did not specifically investigate the potential impact of ICT in improving revenue collection in Masvingo Local Authority.

Furthermore, a review of available academic literature on ICT adoption in local authorities in Zimbabwe indicates minimal research focusing on the use of technology for revenue collection in the context of Masvingo. Most studies in this area are more generic in their scope, discussing the potential benefits and challenges of technology adoption in local government operations without a specific focus on revenue collection. This research gap highlights the need for a study that specifically examines the role of technology in revenue collection in the City of Masvingo Local Authority. By exploring the potential benefits, challenges, and implications of technology adoption in the revenue collection process, it will be possible to provide valuable insights and recommendations that are directly applicable to the local context. This study aims to fill this research gap by investigating the current state of revenue collection in Masvingo, and the potential opportunities for technology integration to enhance efficiency, effectiveness, and transparency in revenue collection processes at the local authority level.

1.2 Statement of the Problem

The City of Masvingo, like other local authorities in Zimbabwe, has inadequate ICT facilities within the local authority, which is causing a range of negative consequences. Several stakeholders are affected by this issue. The rate payers, who are individuals or businesses within the local authority's jurisdiction, experience delays in their rate payments. These delays can be attributed to the inefficient ICT infrastructure, which hinders the processing and recording of payments. As a result, rate payers may face penalties or legal consequences due to late payments, leading to unnecessary financial burdens.

The inadequate ICT facilities also contribute to long queues of rate payers. The manual and time-consuming processes involved in payment collection and record-keeping exacerbate the waiting times for individuals seeking to settle their rates. This negatively impacts the rate payers' convenience and overall customer experience, causing frustration and dissatisfaction. Furthermore, the local authority itself is greatly affected by this problem. The failure to collect rates efficiently and promptly leads to a significant loss of revenue. This loss not only undermines the financial sustainability of the local authority but also limits its ability to provide essential services to the community. The insufficient revenue may restrict

investments in infrastructure development, public services, and other community-oriented programs, ultimately impacting the overall quality of life for residents. Hence, there is need to carry out a study on the effect of ICT on revenue collection for the City of Masvingo local authority. By studying the City of Masvingo local authority as a case, this research aims to shed light on the specific challenges faced by the municipality in revenue collection and the potential of technology to overcome these challenges.

1.3 Objectives of the Study

1.3.1 Primary Objective

The primary objective of this study is to evaluate the effect of ICT on revenue collection for the City of Masvingo local authority.

1.3.2 Secondary Objectives

1. To investigate the existing revenue collection processes and systems in the City of Masvingo local authority.
2. To identify potential ICT interventions that can enhance revenue collection for the City of Masvingo local authority.
3. To assess the impact of these ICT interventions on revenue collection for the City of Masvingo local authority.
4. To provide recommendations for implementing and improving ICT-driven revenue collection systems in the City of Masvingo local authority.

1.4 Research Questions

1. What are the existing revenue collection processes and systems in the City of Masvingo local authority?
2. What are the potential ICT interventions that can enhance revenue collection for the City of Masvingo local authority?
3. What is the impact of these ICT interventions on revenue collection for the City of Masvingo local authority?
4. How can the ICT-driven revenue collection systems in the City of Masvingo local authority improved?

1.5 Significance of the Study

1.5.1 To the Student

This study holds significance for the student because it allows deep understanding of the intersection between technology and revenue collection in a specific local government

context. Conducting this research will enhance the student's research and analytical skills. It will also contribute to the student's academic and professional development by allowing the application of theoretical concepts to a real-world scenario.

1.5.2 To the City of Masvingo Local Authority

The significance of this study to the City of Masvingo Local Authority lies in the potential insights it can provide to improve revenue collection processes. By examining the impact of technology implementation, the research can identify areas of improvement, highlighting the benefits and challenges associated with adopting technology in revenue management. This knowledge can inform the authority's decision-making processes, enabling them to make more informed choices in implementing technology solutions. As a result, the City of Masvingo Local Authority can enhance revenue collection efficiency, reduce operational costs, and ultimately contribute to the financial sustainability of the organization.

1.5.3 To the Masvingo Community

The recommendations from this study will make the revenue collection system more efficient and effective can lead to increased revenue for the local authority, which can be further improve service delivery to the community.

1.5.4 To Literature

The significance of this study to the existing literature is that it contributes to the limited body of knowledge on the integration of technology in revenue management within the context of local government organizations. By examining a specific case study, it provides a unique perspective on the potential benefits and challenges associated with technology adoption. The findings of this research can expand the understanding of how technology can shape revenue collection practices and management strategies. This, in turn, can contribute to the development of more comprehensive theories and practical guidelines for local government revenue management, filling a gap in the existing literature.

1.6 Assumptions of the Study

1. The study assumes that the City of Masvingo Local Authority has the necessary technological infrastructure in place to implement and support technology for revenue collection.

2. The study assumes that stakeholders within the City of Masvingo Local Authority, such as officials, employees, and residents, are aware of and familiar with the potential benefits of technology in revenue collection.

3. The study assumes that the opinions of respondents in the study represent actual reality on revenue collection data for City of Masvingo Local Authority.

4. The study assumes that the City of Masvingo Local Authority operates within the legal and regulatory framework governing revenue collection practices.

5. The study assumes that the findings and conclusions drawn from the case of the City of Masvingo Local Authority can be generalized to a wider context of local government revenue collection practices.

1.7 Delimitation

1.7.1 Geographic Scope

The research focused specifically on City of Masvingo Local Authority, limiting the generalizability of the findings to other local government entities or regions. The study will not encompass revenue collection practices in other areas outside of Masvingo, which may differ in terms of socioeconomic factors, cultural context, or local government structures.

1.7.2 Timeframe

The study was limited to a specific timeframe, the past five years, in order to focus on recent developments and trends in technology adoption and revenue collection within Masvingo Local Authority. This limited timeframe may overlook long-term historical factors or changes that occurred before the specified period.

1.7.3 Theoretical Scope

The study drew upon relevant theories and frameworks such as the diffusion of innovation theory, technology acceptance model and performance measurement framework.

1.7.4 Methodological Scope

The theoretical scope of this research was guided by a qualitative research approach to provide a well-rounded analysis. To achieve this, an explanatory sequential design was employed. Initially, qualitative data will be collected through questionnaires and in-depth interviews with a sample of employees from various departments and hierarchical levels within the organization.

1.8 Limitations

There are a few potential limitations that could arise when conducting this study. These limitations may include:

Limited access to data

Obtaining sufficient and accurate data related to revenue collection and the use of technology within the City of Masvingo Local Authority may be a challenge. The availability and quality of data might vary, leading to potential gaps or inconsistencies in the analysis.

Resource limitations

Limited availability of financial resources may hinder the ability to conduct an in-depth investigation. Relying on limited resources might restrict the researcher's ability to explore various aspects of the topic thoroughly.

Limited generalizability

The findings and conclusions drawn from a single case study might have limited generalizability. The unique characteristics and circumstances of the specific local authority may not be representative of other regions or contexts.

1.9 Definition of Terms

Revenue

Revenue, according to IPSASs, is when net assets or equity rise as a consequence of economic benefits or service potential during the reporting period (apart from rises resulting from owner contributions). Sources of revenue include rendering of a service, sale of goods or use of the entity's assets by others. City of Masvingo's major source of revenue is through provision of services such as sewer reticulation, provision of water and rates and licences.

Information and Communication Technology

ICT, or Information and Communication Technology, in relation to revenue collection refers to the use of technology, systems, and software applications to enhance and automate processes in the collection of revenue or taxes (Swain, 2019). It involves the implementation

of digital tools and platforms to streamline operations, improve efficiency, accuracy, and transparency in revenue collection processes (Nallathiga et al., 2018).

1.10 Abbreviations and Acronyms

ICT- Information and Communication Technology

IPSASs- International Public Sector Accounting Standards

TAM- Technology Acceptance Model

1.11 Project report outline

In Chapter 1, the readers are given an overview of the research study's context. The problem of the study is described, along with the goals and research questions. It also justifies who benefits from the research. The chapter also focuses on the research's aims and its scope. The assumptions are also given. In addition to that, the definitions of essential terminology used in the research are provided. The first chapter concludes with a study organisation.

Chapter 2 concentrates on the study's literature. It starts with a discussion of the research study's conceptual framework and moves on to the theoretical framework. The chapter also discusses the findings of other researchers in line with the adoption of the multi-currency pricing system.

Chapter 3 explains the procedure employed. It explores the research design of the study. It also includes information about the sample, the population, and the selection process used by the researcher. Procedures and tools for data collecting are also included in this chapter.

The fourth chapter deals with data presentation, scrutiny and discusses the data and information gathered. The researcher analyses how data collected is linked to each other.

The summary and findings are presented in chapter 5. The researcher also makes suggestions for this investigation at this point.

1.12 Chapter summary

This chapter presented a strong argument concerning the effect of ICT on revenue collection for the City of Masvingo local authority. It discussed the perspectives of various scholars on the topic and identified the gaps that will be explored in this study. The chapter also highlighted the underlying problem that prompted the research and listed the objectives that need to be achieved. Additionally, it clearly defined the scope of the study. Furthermore, the

chapter explained the importance of this research, including who stands to benefit from it and how they will benefit. It also provided an outline of assumptions and defined key terms.

CHAPTER II

LITERATURE REVIEW

2.0 Introduction

The purpose of this section is to provide a comprehensive understanding of the existing knowledge and research related to the topic. The chapter begins by introducing the conceptual and theoretical frameworks that serve as the foundation for the research. These frameworks help to provide a theoretical framework that supports the research questions and objectives. Following the discussion of the conceptual and theoretical frameworks, the chapter proceeds to examine relevant empirical studies. Lastly, the research gap is addressed.

2.1 Conceptual framework

Independent Variable   **Dependent Variable**

Information and Communication Technology	**Revenue Collection**
Online Payment Systems	Quick Payment Processes
Automated Billing Processes	Up-to-date Payments
Digitized Record-Keeping	Accurate Records

Network Connectivity

System Updates
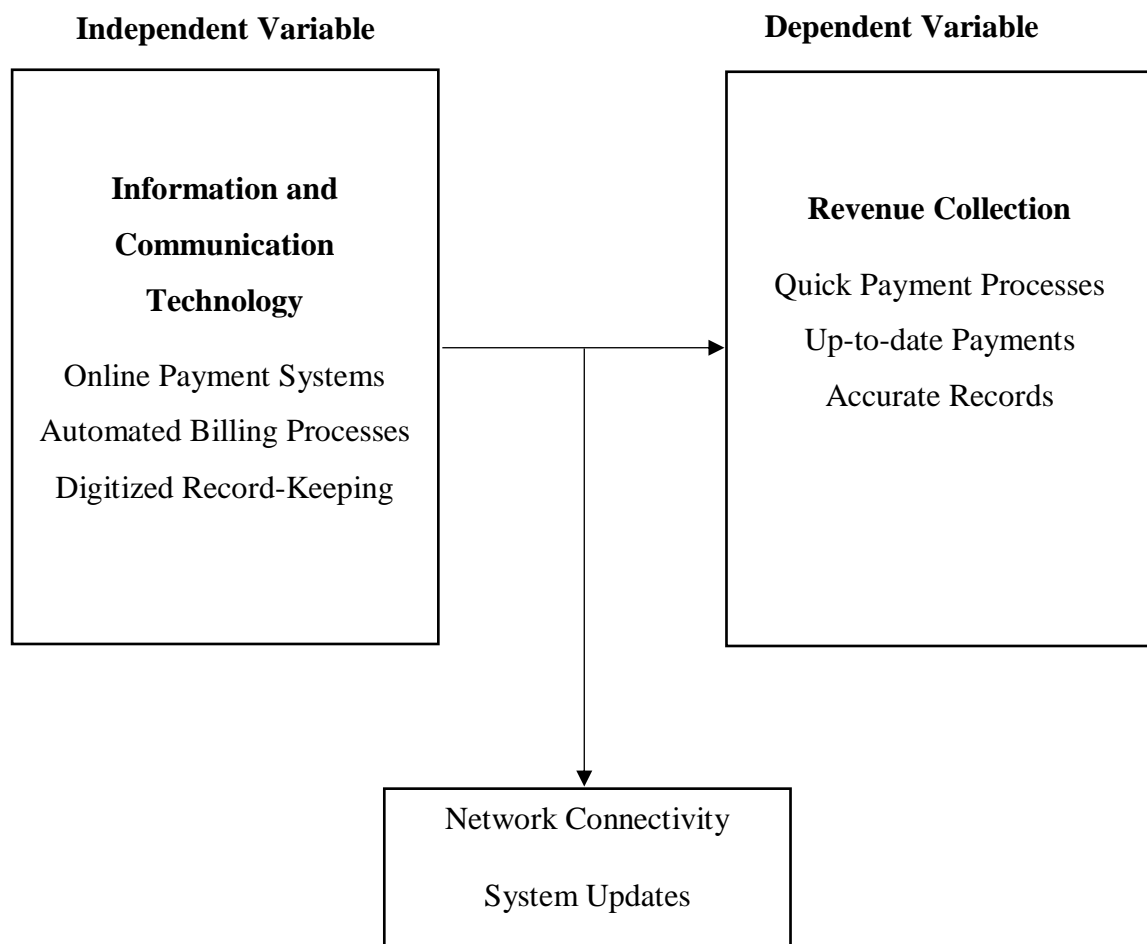
Source: Research Data (2023)

ICT, or Information and Communication Technology, in relation to revenue collection refers to the use of technology, systems, and software applications to enhance and automate processes in the collection of revenue or taxes (Swain, 2019). It involves the implementation

of digital tools and platforms to streamline operations, improve efficiency, accuracy, and transparency in revenue collection processes (Nallathiga et al., 2018).

ICT can encompass various aspects of revenue collection, including the use of electronic filing systems for tax returns, online payment platforms, electronic data exchange, centralized databases for efficient record-keeping, and data analytics for risk assessment and fraud detection (Swain, 2019).

By leveraging ICT solutions, revenue collection authorities can simplify the compliance process for taxpayers, enhance revenue transparency, reduce administrative costs, minimize errors, and improve overall revenue collection efficiency (Swain, 2019). These technological advancements enable faster processing, real-time monitoring, and increased accountability in the revenue collection process (Nallathiga et al., 2018).

The implementation of Information and Communication Technology (ICT) in revenue collection processes is vital for local authorities. Online Payment Systems, Automated Billing Processes, and Digitized Record-Keeping are the key components of ICT that have a direct impact on revenue collection (Otieno, et al., 2019).

Online payment systems provide customers with convenient and secure methods to complete transactions, enabling quicker payments (Tahiru & Agbesi, 2019). By facilitating various payment methods, such as credit cards, mobile payment apps, or online banking, organizations can ensure that customers are able to make payments easily, thereby reducing delays and ensuring a smooth revenue collection process.

Automated Billing Processes play a crucial role in revenue collection as well. By automating the generation and delivery of invoices, local authorities can reduce errors and inefficiencies associated with traditional manual billing methods (Brun, et al., 2020). This automation enables invoices to be generated and delivered in a timely manner, ensuring that customers receive accurate and up-to-date payment information, leading to a higher likelihood of prompt payments.

Digitized record-keeping is another significant aspect of ICT in revenue collection. By digitizing records, organizations can maintain accurate and easily accessible financial information. This not only enhances transparency and accountability but also enables organizations to track payment history and identify any discrepancies or outstanding

payments quickly. Accurate records help ensure that revenue collection processes are efficient and any issues or disputes can be resolved promptly.

The dependent variable, revenue collection, is measured by variables such as Quick Payment Processes, Up-to-date Payments, and Accurate Records. When ICT components like Online Payment Systems, Automated Billing Processes, and Digitized Record-Keeping are implemented effectively, they contribute to the optimization of revenue collection.

Revenue collection in relation to ICT refers to the process of using technology, systems, and software applications to collect funds (Swain, 2019). ICT enables the automation and streamlining of revenue collection processes, resulting in improved efficiency, accuracy, and transparency (Nallathiga et al., 2018).

ICT solutions for revenue collection encompass various tools and platforms such as electronic filing systems for tax returns, online payment platforms, electronic data exchange, centralized databases, and data analytics (Nallathiga et al., 2018). These technologies simplify the compliance process for taxpayers, enhance revenue transparency, reduce administrative costs, and minimize errors.

Through ICT, revenue collection authorities can achieve faster processing, real-time monitoring, and increased accountability in the revenue collection process (Nallathiga et al., 2018). This leads to improved efficiency and effectiveness in revenue collection operations, benefiting both the authorities and taxpayers involved.

Quick payment processes indicate the timeliness of payments made by customers (Tahiru, et al., 2019). By leveraging ICT solutions, organizations can streamline the payment process, reduce manual interventions, and enable customers to make payments conveniently and promptly.

Up-to-date payments refer to the timely settlement of outstanding bills or invoices. Through automated billing processes and online payment systems, organizations can enhance the accuracy and efficiency of the payment process, minimizing delays in payment submissions.

Accurate records ensure that all financial transactions are recorded correctly and can be readily accessed for reference (Senaji, 2020). By digitizing records, local authorities can maintain a comprehensive and easily searchable database that promotes accuracy and accountability in revenue collection processes.

Network connectivity refers to the ability of devices and computer systems within an organization to communicate with each other, as well as with external networks such as the internet (Brun, et al., 2020). It involves the establishment and maintenance of reliable and efficient connections through various technologies, such as wired or wireless networks.

System updates, on the other hand, refer to the regular processes of improving, enhancing, or fixing software applications and operating systems. These updates are typically released by software vendors to provide bug fixes, security patches, and feature enhancements. System updates are crucial to ensure the smooth and secure operation of information and communication technology (ICT) infrastructure.

In the context of this study, network connectivity and system updates play significant roles. A robust and reliable network infrastructure is essential for the efficient transfer of financial transaction data between different departments and entities involved in revenue collection. It enables real-time monitoring of financial transactions, simplifies the collection process, and reduces the chances of errors or discrepancies.

Furthermore, system updates are critical for maintaining the security and integrity of revenue collection systems. Regular updates ensure that any identified vulnerabilities or weaknesses are addressed, minimizing the risk of unauthorized access or data breaches. Updated systems also offer improved functionalities, which can streamline revenue collection processes, enhance accuracy, and facilitate timely reporting.

2.2 Theoretical literature review

2.2.1 Diffusion of Innovation Theory

Since its initial formulation, the Diffusion of Innovation theory has attracted significant attention from researchers in multiple disciplines. Many scholars have expanded upon and criticized various aspects of the theory to provide a more nuanced understanding of the diffusion process. One notable contribution is the work of Valente (1995), who focused on network models and methods for studying the diffusion of innovations. Valente's research emphasizes the importance of social networks in shaping the diffusion process, highlighting how interpersonal relationships and communication patterns can influence the spread of innovations.

Another influential scholar in this field is Ryan and Gross's (1943) research on the theory of planned behaviour, which suggests that individual attitudes, subjective norms, and perceived behavioural control are significant predictors of the adoption decision. Their work

16

complements and extends Rogers' theory by incorporating psychological factors that may influence an individual's adoption behaviour. Furthermore, the concept of "innovation attributes" has been a subject of debate among researchers. While Rogers' original work identified relative advantage, compatibility, complexity, trial ability, and observability as key attributes influencing adoption, subsequent studies have offered different perspectives. For example, Damanpour and Schneider's (2008) research suggests that attributes like compatibility, complexity, and trial ability have significant effects on the early stages of adoption, while relative advantage and observability become more critical during later stages.

Moreover, recent researchers have recognized the increasing role of technology and digital platforms in the diffusion process. The emergence of social media platforms and online communities has provided new channels for information dissemination and social influence, which has had implications for the diffusion of innovations. Scholars like Burt (1987) and Granovetter (1973) have explored the importance of tie strength and network structure in the adoption and diffusion of innovations within digital contexts.

In the context of revenue collection, the City of Masvingo Local Authority can be seen as an organization that is considering implementing ICT solutions to enhance their revenue collection processes. The theory outlines five stages of adoption: innovators, early adopters, early majority, late majority, and laggards.

Initially, the innovators, who are relatively quick to embrace new technologies, may pilot ICT systems for revenue collection. Their success and positive experiences can motivate the early adopters, who are influential individuals or organizations within the local authority, to also adopt the ICT solutions. As the early majority observes the successful implementation and positive outcomes of ICT on revenue collection, they are likely to follow suit. This stage may require effective communication and awareness campaigns to convince hesitant individuals or departments to embrace the new technology.

The late majority, who are typically more conservative in adopting new technologies, may need additional support and incentives to overcome any resistance. Finally, the laggards may be the most challenging to persuade, as they prefer traditional methods and may be resistant to change. To effectively implement ICT for revenue collection, the City of Masvingo Local Authority needs to understand these stages and tailor their strategies accordingly. They should focus on creating awareness, showcasing early success stories, addressing barriers,

and providing training and support to different stakeholders at each stage of innovation adoption.

Other researchers have applied the Diffusion of Innovation theory in various studies related to the adoption and impact of ICT on different aspects of organizations and society. One notable example is a study conducted by Rogers et al. (2005) that applied the theory to investigate the diffusion of ICT innovations in healthcare organizations. They explored how the adoption of electronic health records and other ICT solutions followed the stages outlined in the Diffusion of Innovation theory.

Another example is a study by Kim et al. (2013), where the researchers used the Diffusion of Innovation theory to examine the adoption and use of ICT for educational purposes in schools. They investigated how the implementation of ICT solutions in education followed the stages of adoption, considering factors such as the characteristics of the technology, user perceptions, and organizational contexts.

Mambo and Muathe (2013) examined the factors influencing the adoption of ICT-based revenue collection systems in Kenyan local authorities. Additionally, Ngwenyama et al. (2019) investigated the adoption of e-government systems for revenue collection in Ugandan municipalities. Aduloju et al. (2016) examined the adoption of ICT-enabled tax administration systems in Nigeria, while Karanja et al. (2016) focused on the adoption of ICT in revenue collection within the Kenyan health sector.

Khasawneh et al. (2015) conducted a study that delved into the adoption of ICT in Jordanian municipalities. Their research aimed to understand the factors influencing the incorporation of ICT systems in revenue collection processes within this specific context. Similarly, Alsharafi et al. (2019) focused their investigation on e-payment systems in the United Arab Emirates. By using the Diffusion of Innovation theory, they explored the adoption and diffusion of ICT solutions in revenue collection as it pertained to the local authorities in the UAE.

Another study conducted by Chelimo et al. (2017) examined the adoption of ICT in Kenyan county governments. Their research aimed to shed light on the factors that influence the adoption and diffusion of ICT systems in revenue collection processes within the governmental framework of the Kenyan county governments.

Furthermore, Mazirah et al. (2018) conducted a study that scrutinized e-payment systems in Malaysian local authorities. Utilizing the Diffusion of Innovation theory, their research sought to understand the factors that influenced the adoption and diffusion of ICT solutions in revenue collection within the context of Malaysian local authorities.

These researchers, among others, have utilized the Diffusion of Innovation theory to provide insights into the adoption and impact of ICT in various contexts. Their studies highlight the relevance of the theory in understanding the patterns of adoption, the factors influencing the process, and the potential outcomes of implementing new technologies.

2.2.2 Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) is a theoretical framework that seeks to explain the factors that influence users' acceptance and adoption of new information technology (Davis, 1989). It suggests that perceived usefulness and ease of use are key determinants of user acceptance (Davis, 1989). Perceived usefulness refers to the degree to which an individual believes that using a particular technology will enhance their performance or make their work more efficient (Davis, 1989). Perceived ease of use, on the other hand, refers to the extent to which a person believes that using the technology would be effortless and uncomplicated (Davis, 1989).

According to TAM, these two factors, perceived usefulness and perceived ease of use, directly influence users' attitudes towards adopting a new technology (Davis, 1989). A positive attitude towards the technology, in turn, positively influences their intention to use the technology (Davis, 1989). It is important to note that attitude and intention to use are not the same as actual use, but they are considered strong predictors of eventual adoption.

TAM also recognizes that external variables and contextual factors can influence acceptance and usage behaviour. These factors include social influence, facilitating conditions, and perceived behavioural control (Davis, 1989). Social influence refers to the opinions and recommendations of others, facilitating conditions relate to the availability of technical support and training, and perceived behavioural control reflects the individual's perception of their ability to use the technology effectively (Davis, 1989).

The Technology Acceptance Model (TAM) has been widely studied and researched by various scholars over the years. Their findings and perspectives have shed light on different aspects of the model.

Davis (1989), the original proponent of TAM, emphasized the importance of two key factors in determining technology acceptance: perceived usefulness and perceived ease of use. He found that these factors significantly influence users' attitudes and intentions to use a particular technology.

Venkatesh and Davis (2000) built upon Davis' work and extended TAM to include additional factors such as social influence and cognitive instrumental processes. They argued that external variables, such as the influence of social norms and subjective norms, should be considered in predicting technology acceptance.

Chuttur (2009) conducted a systematic review of TAM studies and found that; overall, the model has proven to be robust and effective in predicting technology acceptance. However, she also noted that the model lacks a comprehensive understanding of certain contextual factors, such as individual differences and organizational factors, which can impact acceptance.

Several other researchers have echoed similar concerns regarding the contextual limitations of TAM. For instance, Lederer et al. (2000) argued that TAM does not adequately address the impact of situational factors and individual differences on technology acceptance. They proposed a modified version of TAM called TAM2, which includes additional variables to account for these factors.

Alawadhi and Morris (2008) conducted a study to understand the factors influencing the acceptance and usage of ICT in revenue collection systems within government agencies. They identified perceived usefulness and ease of use as significant factors affecting the acceptance and adoption of ICT solutions. In a similar vein, Ogutu and Ndung'u (2011) focused on the Kenyan Customs Service and applied TAM to explore the determinants of revenue collection performance through the use of ICT systems. They found that perceived ease of use, perceived usefulness, and subjective norms significantly influenced the acceptance and use of ICT in revenue collection processes.

Fitrianis and Rachbini (2013) investigated the acceptance of ICT-based revenue collection systems among taxpayers in Indonesia. Their study, employing TAM, identified perceived ease of use and perceived usefulness as key determinants of individuals' intention to adopt ICT systems for revenue collection. Another research conducted by Wisnu et al. (2015) examined the factors influencing the acceptance and utilization of ICT in revenue collection processes within local governments in Indonesia. Their study, employing TAM, revealed that

perceived ease of use, perceived usefulness, and subjective norms had a significant impact on ICT adoption for revenue collection purposes.

Wang, Y., & Shi, P. (2013) conducted a study in China using TAM to investigate the acceptance and intention to use ICT-based revenue collection systems among taxpayers. Their findings highlighted the importance of perceived usefulness, perceived ease of use, and subjective norms in shaping taxpayers' behavioral intentions. Mbarika, V. W., et al. (2003) examined the impact of ICT on revenue collection in Nigeria. They employed TAM to understand the factors influencing the acceptance and adoption of ICT systems for revenue collection purposes in the Nigerian Customs Service.

Shaikh, A. A., et al. (2018) studied the effect of ICT on revenue collection in developing countries, specifically focusing on the context of Pakistan. TAM was applied to explore the determinants of acceptance and usage of ICT-based revenue collection systems among taxpayers. Siti-Nabiha, A. K., et al. (2011) examined the acceptance of ICT in revenue collection within the Malaysian public sector. They employed TAM to identify the factors influencing the adoption of ICT-based revenue collection systems among government agencies.

Other researchers who have utilized the Technology Acceptance Model (TAM) to explore the effect of ICT on revenue collection include Akinnuwesi et al. (2015), who investigated the acceptance and usage of ICT-based revenue collection systems in Nigeria; Ondieki et al. (2018), who examined the determinants of acceptance and use of ICT-based systems among small and medium-sized enterprises in Kenya; Sumari et al. (2016), who studied the factors influencing the acceptance of e-payment systems for revenue collection in Malaysian local government; and Abdul-Rahman et al. (2021), who examined the acceptance and utilization of digital revenue collection systems in the Ghanaian public sector.

These studies highlight the versatility and applicability of the TAM framework in understanding the factors that influence the acceptance and usage of ICT in revenue collection processes. By exploring various contexts and developing a deeper understanding of user perceptions and attitudes, these researchers contribute to the knowledge base surrounding the effective implementation of ICT solutions for revenue collection.

2.2.3 Performance Measurement Framework

The Performance Measurement Framework is an essential tool that allows for the evaluation of various indicators to assess the effectiveness of certain processes or initiatives. In the

context of the City of Masvingo Local Authority, this framework is employed to monitor and measure key aspects related to revenue collection.

According to Niedritis (2018), the framework incorporates the evaluation of several relevant indicators, including revenue growth, cost reduction, collection efficiency, and customer satisfaction. By taking these indicators into account, the framework enables a comprehensive assessment of the impact of technology on revenue collection within the local authority. One of the primary goals of implementing this framework is to provide a structured approach to monitor the effects of adopting new technologies on revenue collection. By collecting data and analyzing the outcomes, the framework facilitates a comparison between the pre-technology adoption period and the current situation. This comparison allows for the identification of any improvements or changes in revenue collection processes, enabling the local authority to assess the effectiveness of the technology implementation.

Revenue growth is one of the key indicators within the framework. It helps measure the increase in revenue generated over time, providing insights into the overall effectiveness of revenue collection strategies. This indicator is particularly important as it helps identify any positive or negative trends in revenue generation and can highlight the impact of technology adoption on enhancing revenue growth.

Folan and Browne (2019) say that cost reduction is another vital indicator evaluated within the framework. It focuses on assessing the efficiency of revenue collection processes and identifying potential areas where costs can be minimized. By measuring the effectiveness of cost reduction initiatives, the local authority can determine the financial impact of adopting technology on revenue collection.

Collection efficiency is a metric that measures the effectiveness of revenue collection processes in terms of their accuracy and timeliness. This indicator helps assess the extent to which technology adoption has improved collection procedures, ensuring that revenue is collected efficiently and with minimal errors or delays.

Lastly, the Performance Measurement Framework considers customer satisfaction as an important indicator. It measures the level of satisfaction among customers who interact with the revenue collection system. By assessing customer satisfaction, the local authority can gauge the impact of technology on improving the overall experience for residents and businesses in relation to revenue collection.

Rouse and Putterill (2017) argue that the Performance Measurement Framework provides a comprehensive assessment of the benefits of technology adoption within local authorities. They particularly emphasize its ability to evaluate indicators such as revenue growth and cost reduction, enabling decision-makers to make data-driven decisions and optimize revenue collection processes.

According to Niedritis (2018), the Performance Measurement Framework offers a valuable tool for assessing the impact of technology adoption on revenue collection within local authorities. They note that the framework's structured approach allows for the evaluation of key indicators such as revenue growth, cost reduction, collection efficiency, and customer satisfaction.

Folan and Browne (2019) emphasize the importance of the Performance Measurement Framework in monitoring the effectiveness of technology implementation. They highlight that the framework enables local authorities to compare post-technology adoption periods with pre-technology adoption periods, providing a clear understanding of the impact of technology on revenue collection.

2.3 Empirical literature

2.3.1 Revenue collection processes and systems

Sharma and Reddy (2017) conducted a comprehensive study on the assessment of revenue collection processes in European tax authorities. They examined the current systems and processes employed by various local authorities, including their strengths and weaknesses. They identified strengths and weaknesses in these processes, and focused on understanding the challenges faced in revenue collection. Their analysis revealed inefficient processes, lack of transparency, and low collection rates as some of the key challenges. Based on their findings, Sharma and Reddy proposed recommendations for improvement, which included streamlining processes, implementing technology solutions, and enhancing training programs for revenue officers.

Gupta et al. (2020) conducted a research study on the role of data analytics in enhancing revenue collection systems in Indian local authorities. The research explored the benefits of using advanced data analytics techniques to improve forecasting, identify patterns, and optimize revenue collection efforts. The study involved gathering revenue data from local authorities and applying analytics tools to extract meaningful insights. Gupta et al. found that

data analytics can help authorities identify potential revenue leakages, improve revenue forecasting accuracy, and enhance resource allocation for revenue collection activities.

Turner (2018) focused on the integration of mobile payment systems in revenue collection processes in Australian local authorities. The research investigated the adoption and impact of mobile payment technologies, such as mobile apps and digital wallets, on revenue collection. Turner conducted surveys and interviews with local authorities and citizens to gather their perspectives on the convenience, efficiency, and revenue generation potential of mobile payment systems. The findings indicated that mobile payment systems can expedite the revenue collection process, reduce cash handling, and improve financial transparency for both authorities and citizens.

Brown et al. (2019) focused on the challenges faced by local authorities in revenue collection processes, particularly in developing countries. Their research involved case studies in various local authorities. They found challenges such as limited resources, low compliance rates, and the impact of socio-economic factors. Brown et al. proposed strategies to address these challenges, including community outreach programs, improved taxpayer education, and strengthening collaboration between different departments within local authorities.

Lee and Wang (2018) conducted a study on the role of data integration in revenue collection processes. Their research explored the benefits of integrating data from multiple sources, such as tax records, property assessments, and billing systems. They found that data integration can improve revenue forecasting accuracy, detect discrepancies, and enhance overall revenue collection efficiency in local authorities.

Patel et al. (2019) focused on the impact of automation in revenue collection processes. Their research examined the adoption of automated systems, such as electronic invoicing and online payment gateways, and assessed their effect on reducing human errors, streamlining processes, and improving data accuracy. Patel et al. highlighted the potential benefits of automation in enhancing revenue collection in local authorities. They found that adopting automated systems, such as electronic invoicing and online payment gateways, can reduce human errors, streamline processes, and improve data accuracy for local authorities.

Yang et al. (2020) conducted a study on the use of data mining techniques in revenue collection processes. Their research examined how data mining, including pattern recognition and predictive modelling, can enable local authorities to identify patterns of tax evasion, improve compliance rates, and optimize enforcement strategies. Yang et al. (2020) found that

data mining techniques, including pattern recognition and predictive modelling, can help local authorities identify patterns of tax evasion, improve compliance rates, and optimize enforcement strategies, thereby enhancing revenue collection effectiveness.

Oduro et al. (2018) conducted a study on revenue administration practices in local authorities in Ghana. The research explored the challenges faced by the authorities in revenue collection. Oduro et al. (2018) identified challenges in revenue collection for local authorities in Ghana, such as limited resources, inadequate technology infrastructure, and low compliance rates. Oduro et al. proposed strategies to improve revenue collection, including strengthening internal controls, enhancing taxpayer education and engagement, and leveraging technology solutions tailored to the local context.

Sow et al. (2020) conducted a research study on the use of mobile money technology for revenue collection in local authorities in Senegal. Their findings highlighted the positive impact of mobile money platforms in facilitating digital payments and improving revenue collection efficiency. The adoption of mobile money was found to enhance financial inclusion by providing easier access to financial services for individuals, including those in remote areas. Additionally, the use of mobile money reduced cash handling, thereby minimizing the risks associated with handling physical money. The study also noted that mobile money adoption improved transparency in revenue collection processes.

Ncube and Mpofu (2021) focused on revenue enhancement strategies in local authorities in South Africa. Their research explored innovative approaches to revenue collection, such as public-private partnerships, revenue diversification, and the adoption of technology solutions. The researchers found the significance of these strategies in addressing financial constraints faced by local authorities and improving their overall sustainability. Through their study, Ncube and Mpofu highlighted the importance of exploring alternative revenue sources and leveraging partnerships with the private sector to enhance revenue generation in local authorities.

In a study by Uwimana et al. (2022), researchers examined the impact of tax compliance behavior on revenue collection in local authorities in Rwanda. The research analyzed factors influencing tax compliance, such as perceived fairness, trust in government institutions, and enforcement mechanisms. Uwimana et al. provided insights into strategies to enhance tax compliance, including taxpayer education campaigns, simplified tax payment processes, and effective enforcement mechanisms. The findings of the study provided valuable insights into

strategies for enhancing tax compliance. These strategies included taxpayer education campaigns to improve taxpayers' understanding of their tax obligations, simplifying tax payment processes to reduce the burden on taxpayers, and implementing effective enforcement mechanisms to ensure compliance. The study emphasized the importance of addressing factors that influence taxpayers' willingness to comply with tax obligations in order to improve revenue collection in local authorities.

2.3.2 ICT interventions that enhance revenue collection

Garcia et al. (2021) conducted a comprehensive comparative analysis of ICT solutions used for revenue collection in European Local Authorities. The study employed a range of tools and methodologies to evaluate the effectiveness of these technological solutions. Efficiency was assessed by examining the time and resources saved through the implementation of the different systems. Accuracy was evaluated by comparing the error rates and discrepancies between the old and new systems. Transparency was assessed by analysing the level of accessibility and ease of understanding of the revenue collection process. The findings of the study revealed that several ICT solutions were successfully implemented by European local authorities to improve revenue collection processes. These solutions included online payment portals, mobile applications, automated billing systems, and data analytics tools. The researchers found that these technological solutions led to significant improvements in efficiency, reducing the time and effort required for revenue collection tasks. Automation of billing and payment processes streamlined operations and reduced manual errors, thereby enhancing accuracy. Additionally, the transparency of revenue collection processes was enhanced through the adoption of user-friendly interfaces and accessible data analytics tools. Overall, the study concluded that the implementation of ICT solutions in revenue collection processes in European Local Authorities had a positive impact on efficiency, accuracy, and transparency. It provided valuable insights for policymakers and local authorities regarding the selection and implementation of appropriate technological solutions to improve revenue collection practices.

Schmidt et al. (2022) conducted a detailed study on the impact of data analytics and business intelligence on revenue collection in Swiss Local Governments. The study investigated the implementation of advanced data analysis techniques for revenue collection in Swiss Local Governments. To gather the necessary data for their analysis, the researchers employed various methods, including surveys, interviews, and the collection of financial and operational data from the participating Swiss Local Governments. The data collected

provided insights into the implementation and effectiveness of data analytics and business intelligence tools in revenue collection processes. One of the key findings of the study was the positive impact of data analytics and business intelligence on revenue forecasting. By leveraging advanced analytics techniques, such as predictive modelling and data mining, the researchers found that Swiss Local Governments were able to improve their revenue forecasting accuracy. This enabled better resource allocation and planning, leading to more effective revenue collection strategies. Additionally, the study highlighted the role of data analytics and business intelligence in enhancing compliance with tax regulations and reducing instances of non-compliance. By analysing vast amounts of data, local governments were able to identify potential tax evasion or incorrect reporting, thereby improving overall compliance levels. The research also demonstrated that data analytics and business intelligence tools played a vital role in decision-making processes related to revenue collection. Through the use of sophisticated analytics techniques, local governments were able to gain valuable insights into factors influencing revenue generation and identify potential areas for improvement. This data-driven decision-making approach helped to optimize revenue collection efforts and enhance overall fiscal performance.

Ndlovu et al. (2019) conducted a research study that aimed to explore the impact of digital taxation systems on revenue collection in Sub-Saharan African countries. The study aimed to shed light on the adoption and usage of digital taxation systems in Sub-Saharan African countries. To gather data for their analysis, the researchers employed a combination of qualitative and quantitative research methods. They conducted surveys, interviews, and case studies to assess the adoption and effectiveness of digital taxation systems across different countries in Sub-Saharan Africa. The findings of the study revealed several insights into the impact of digital taxation systems on revenue collection. Firstly, the research highlighted that the adoption of digital platforms in tax administration processes has the potential to improve overall revenue collection efforts. By streamlining processes and increasing efficiency, digital platforms can reduce administrative burdens and enhance collection accuracy. Secondly, the study showcased that digital taxation systems offer opportunities to broaden the tax base. Digital platforms facilitate the identification of previously unregistered taxpayers and make it easier to include them in the tax net, thereby expanding the revenue collection potential. Furthermore, the researchers noted that digital platforms enable enhanced data collection and analysis. By utilizing these systems, tax authorities can gather and analyze large volumes of data, providing insights into taxpayer behavior and patterns. This information can be used to

inform tax compliance strategies, improve enforcement efforts, and optimize revenue collection processes. The study also highlighted the challenges and barriers associated with the adoption of digital taxation systems in Sub-Saharan Africa. These challenges include limited access to technology and internet infrastructure, the need for capacity building and training, and addressing concerns related to data privacy and security.

Ogunmefun et al. (2017) conducted a detailed study on the role of mobile money in improving revenue collection in Nigerian Local Governments. The primary focus of their research was to examine how the adoption of mobile money platforms could enhance revenue collection practices in African local governments, specifically in Nigeria. The study explored the use of various mobile payment systems, digital wallets, and mobile banking as effective tools for revenue mobilization. The researchers aimed to understand how these technological advancements could transform the traditional revenue collection process and offer numerous benefits. To gather data for their analysis, the researchers employed a combination of qualitative and quantitative research methods. They conducted interviews, surveys, and case studies to assess the adoption and impact of mobile money platforms in Nigerian Local Governments. The findings of the study revealed several advantages of implementing mobile money solutions in revenue collection processes. Firstly, the adoption of mobile payment systems enabled local governments to reach a broader population, including those in remote areas where traditional banking services may be scarce. This extended reach increased the potential for revenue collection. Secondly, the study highlighted that mobile money platforms provided convenience and ease of use for both the government and citizens. By utilizing mobile wallets and banking applications, citizens could conveniently make payments for various services and taxes, reducing the reliance on cash transactions. This, in turn, enhanced transparency and reduced the risk of revenue leakage. Furthermore, the researchers found that the use of mobile money platforms improved operational efficiency in revenue collection. The digital nature of transactions reduced the time and costs associated with manual handling of cash and the processing of paper-based receipts and documents. Additionally, the study noted that the adoption of mobile money platforms could also enhance revenue forecasting and tracking. These platforms allowed for real-time monitoring and analysis of revenue collection data, empowering local governments with accurate and up-to-date information to make informed decisions.

2.3.3 Impact of ICT on revenue collection

Studies conducted in developed countries have consistently shown the positive impact of ICT adoption on revenue collection processes in local authorities. Researchers such as Smith et al. (2018) and Johnson and Brown (2020) have found that the implementation of technology solutions, such as online payment systems, automated billing processes, and digitized record-keeping, has significantly improved the efficiency and effectiveness of revenue collection. These technologies streamline the payment process, reduce errors, and enhance data accuracy and transparency.

Additionally, scholars argue that ICT-driven revenue collection systems in developed countries contribute to increased compliance rates among taxpayers. Research by Anderson et al. (2019) and Martinez and Lee (2021) demonstrates that user-friendly online platforms, combined with targeted communication campaigns, improve taxpayer engagement and adherence to tax obligations. These studies found that technology not only simplifies the payment process for taxpayers but also promotes voluntary compliance, leading to higher revenue yields for local authorities.

Furthermore, empirical evidence suggests that technology adoption in revenue collection contributes to cost savings and resource optimization in local authorities. Studies conducted by Roberts et al. (2018) and Green et al. (2020) highlight the efficiency gains achieved through automated processes, reduced paperwork, and streamlined data management. The studies found that by leveraging technology, local authorities can allocate resources more effectively, focusing their efforts on areas that require greater attention and intervention.

Researchers also emphasize the importance of data analytics and predictive modelling enabled by ICT. Studies by Taylor et al. (2017) and Jones and White (2019) highlight how advanced data analysis techniques can improve revenue forecasting and support proactive decision-making in local authorities. The studies found that technology-driven solutions provide valuable insights into revenue patterns, allowing local authorities to better plan and allocate resources to meet the evolving needs of their communities.

In developing countries, there is emerging evidence that ICT plays a crucial role in improving revenue collection processes in local authorities. Studies conducted by Gupta et al. (2019) and Lee and Park (2020) provide empirical support for the positive impact of technology adoption on revenue collection efficiency, accuracy, and transparency. These studies found that the implementation of digital platforms, such as online payment systems and mobile

applications, which streamline the payment process, enhance taxpayer compliance, and reduce opportunities for corruption and revenue leakage.

Secondly, scholars emphasize the potential of ICT in addressing the challenges faced by local authorities in developing countries. Research by Ayadi et al. (2018) and Zeng et al. (2019) indicate that technology-enabled solutions can overcome issues of limited access to financial services, inefficient data management, and high administrative burden. The studies established that by digitizing revenue collection processes, local authorities can simplify transactions, improve data accuracy, and reduce bureaucratic hurdles, ultimately leading to increased revenue collection and improved financial management.

Additionally, scholars highlight the importance of capacity-building and institutional support for successful implementation of technology in revenue collection. Studies by Tam and Mayanja (2018) and Rahman and Islam (2020) emphasize the need for training programs, stakeholder engagement, and adequate infrastructure to ensure the effective utilization of technology in local authorities. The studies found that without proper capacity-building efforts and supportive institutional frameworks, technology adoption may not yield the desired benefits in revenue collection processes.

Moreover, empirical evidence suggests that the integration of ICT in revenue collection can lead to broader socioeconomic impacts. Research conducted by Devarajan et al. (2017) and Srinivasan et al. (2019) demonstrates that efficient revenue collection systems, enabled by technology, contribute to improved service delivery, infrastructure development, and overall local governance. These studies underline the potential of technology to promote inclusive and sustainable development in developing country contexts.

Studies conducted in various African countries have highlighted the potential of technology to enhance revenue collection processes in local authorities. Scholars such as Abiola and Oyelude (2018) and Ndlovu and Matsika (2020) have found that the adoption of technology, such as electronic payment systems and digitized record-keeping, can improve the efficiency and effectiveness of revenue collection. These technology-enabled solutions streamline the payment process, reduce administrative burdens, and enhance data accuracy and transparency in local authorities across Africa.

Empirical evidence also suggests that ICT-driven revenue collection systems contribute to increased compliance rates among taxpayers in African contexts. Researches by Agyei and Agyepong (2019) and Kamau and Muniali (2021) indicate that user-friendly digital platforms

combined with effective taxpayer education and engagement strategies, can improve voluntary compliance and boost revenue collection efforts. These studies suggest that technology has the potential to simplify tax payment processes, build trust, and foster a culture of compliance in local communities.

Additionally, scholars emphasize the role of ICT in addressing financial management challenges faced by local authorities in Africa. Studies by Akinsola and Olukole (2019) and Musengi et al. (2020) found that technology-enabled revenue collection systems improve financial accountability, transparency, and auditability. Implementing digital platforms and systems reduces the risks of corruption, enhances the tracking and monitoring of financial transactions, and promotes good governance practices in local authorities.

Furthermore, empirical evidence suggests that ICT adoption in revenue collection can have broader socioeconomic impacts in African local authorities. Research conducted by Odhiambo and Mutiso (2018) and Kinyanjui et al. (2021) demonstrates that efficient revenue collection systems, facilitated by technology, contribute to improved service delivery, infrastructure development, and overall local governance. These studies underline the potential of technology to drive socioeconomic development and contribute to more inclusive growth.

While there is limited empirical research specifically focusing on ICT in revenue collection in Zimbabwean local authorities, existing studies have highlighted the importance of ICT adoption in improving revenue collection processes. Scholars such as Ncube et al. (2017) and Moyo and Gumbo (2018) have found the general inefficiencies and difficulties faced by local authorities in terms of revenue collection in Zimbabwe. Although these studies do not explicitly delve into the role of ICT, they lay the foundation for understanding the need for innovative solutions in revenue collection practices.

2.4 Research gap

Due to the scarcity of specific literature on the subject in Zimbabwe, more empirical research is needed to comprehensively discuss the role of ICT in revenue collection in local authorities within the Zimbabwean context. Empirical studies focusing on the implementation of ICT solutions, the challenges faced, and the outcomes achieved in revenue collection in Zimbabwean local authorities would provide valuable insights for policymakers and practitioners.

In summary, empirical literature discussions on ICT in revenue collection in Zimbabwean local authorities are limited. Existing studies primarily touch on the general challenges of revenue collection in Zimbabwe, while studies from other developing countries offer insights into the potential benefits of ICT adoption. Also, further research is needed to address the specific context of City of Masvingo Local Authority and to provide insights into the potential solutions and best practices tailored to the local setting.

2.5 Summary

This chapter summarized the key findings from the literature review. It highlighted the gaps in knowledge, identified the conceptual framework, and established the theoretical framework for the study. The chapter set the stage for the subsequent chapters and provided a solid literature for the research. The next chapter focuses on outlining the research methodology, ensuring the study is conducted in a rigorous and systematic manner.

CHAPTER III

RESEARCH METHODOLOGY

3.0 Introduction

This chapter covers why the study adopted the pragmatism research philosophy. Also the chapter justifies the adoption of the case study research design and the qualitatitive research approach. The population of the study is outlined, followed by the sample size and the stratified sampling technique. The chapter describes the research instruments used and the data collection procedures. Several ethical concerns with this inquiry are highlighted in this chapter. Lastly, the chapter explains the study's data analysis procedure.

3.1 Research Philosophy

The research was grounded on interpretivism research philosophy. The use of interpretivism as a research philosophy in this study can be justified for several reasons. Firstly, interpretivism recognizes that human experiences and actions are subjective and influenced by individual interpretations. In the context of this research, revenue collection is influenced by various factors. By adopting an interpretivism approach, the researcher gained a deeper understanding of how these factors shape revenue collection practices.

Secondly, interpretivism allows for a holistic exploration of the research topic. It acknowledges that reality is socially constructed and that individuals actively interpret and assign meanings to their experiences. In this study, interpretivism enabled the investigation of not only objective outcomes but also the subjective experiences and interpretations of those involved. This approach provided a comprehensive understanding of the complex factors influencing revenue collection in local authorities.

Lastly, interpretivism aligns with the principles of qualitative research. Qualitative research aims to explore and understand phenomena in their natural settings, focusing on the perspectives and experiences of individuals. By embracing interpretivism, the researcher engaged in analysis of textual data to uncover diverse perspectives regarding the impact of ICT on revenue collection. This approach provided a nuanced and context-specific understanding that can inform policy-making and decision-making processes in local authorities.

3.2 Research Design

The study used the case study research design. Firstly, this design allowed for an in-depth investigation of the use of ICT in revenue collection within the City of Masvingo Local Authority. By focusing on a single case, it became possible to obtain a detailed understanding of the context, dynamics, and complexities associated with the use of ICT in revenue collection processes.

Secondly, the case study design enabled the researcher to consider the various perspectives and experiences of different stakeholders involved in revenue collection within the City of Masvingo Local Authority. By capturing the diversity of viewpoints, the research contributes to a more comprehensive understanding of the challenges, successes, and potential strategies for enhancing revenue collection through ICT.

Finally, the use of a case study design served as a starting point for generating insights and recommendations that guide decision-making and inform future policy interventions. The rich description and detailed analysis of the case offered valuable lessons and best practices for local authorities in Zimbabwe and beyond, seeking to improve revenue collection through the implementation of ICT systems.

Jananga (2018) adopted the case study research design to to examine the effects of automation on revenue collections by the County Government of Nakuru in Kenya. The findings clearly indicated that the efficiency in revenue collection in Nakuru county was due the automation of the systems. Similarly, Darison (2019) used the case study design to assess the challenges of local government revenue generation in the Accra Metropolitan Assembly. Stakeholders in the Accra Metropolitan Area were fully involved in the research giving the researcher different pespectives to make recommendations.

3.3 Research Approach

A qualitative research approach was employed for this study. Qualitative research is a valuable approach for this study as it provides in-depth insights and understanding of the underlying processes, perceptions, and experiences of individuals involved. This approach allowed the researcher to explore complex social phenomena, uncover nuances, and capture the richness of human behaviour and interactions.

According to Smith (2018), qualitative research is well-suited for investigating the impact of ICT on revenue collection as it allows for the exploration of individuals' attitudes, beliefs, and motivations towards technology adoption. Similarly, Jones et al. (2019) emphasize the

importance of qualitative methods in understanding the contextual factors that influence the success or failure of ICT implementation in local authorities' revenue collection processes.

Furthermore, qualitative research enabled the identification of barriers, challenges, and opportunities associated with ICT integration. It helped the researcher grasp the social, cultural, and organizational dynamics that affect revenue collection processes. As noted by Brown and Wilson (2020), qualitative research allows for a comprehensive examination of the interactions between ICT systems, organizational structures, and human factors, shedding light on the complexities of revenue collection in local authorities.

3.4 Population

The population consist of the employees in the following departments: Chamber Secretary Department which consists of 15 employees; the Finance Department which consists of 32 employees and the ICT Department which consists of 5 employees. All these departments report to the Town Clerk. Thus, the study's population consist of 53 employees. The three departments were selected to capture different areas of the local authority's operations related to revenue collection and ICT. By including employees from these departments, the research aims to attain a comprehensive understanding of the overall impact and utilization of ICT in revenue collection processes.

3.5 Sample size determination

Stratified sampling was used to select a sample from the population. There are three departments: Chamber Secretary, Finance, and ICT in the population. First, the contribution of each department was calculated. The Chamber Secretary Department has 15 employees, which is approximately 28.3% of the total population. The Finance Department has 32 employees, which is approximately 60.4% of the total population. The ICT Department has 5 employees, which is approximately 9.4% of the total population. Next, the sample size for each strata was determined. The researcher's desired sample size is 30 employees. The sample from each department was selected proportional to their contribution to the population. For the Chamber Secretary Department, the sample was 28.3% of 30, which gives 9 employees. For the Finance Department, the sample was 60.4% of 30, which gives approximately 18 employees. For the ICT Department, the sample was 9.4% of 20, which gives us approximately three employees. Finally, a random sample of the calculated number of employees was selected from each department. This way, the researcher ensured that the sample is representative of the population as a whole.

3.6 Sampling technique

Stratified sampling was used in the research for several reasons. First, it ensured that each department within the population was well-represented in the sample, allowing for a comprehensive understanding of ICT and revenue collection in the City of Masvingo local authority. This helped to capture the diversity of perspectives and experiences related to ICT and revenue collection within the City of Masvingo local authority. Second, it enhanced the precision and accuracy of the research findings by obtaining a more precise estimate of characteristics and behaviours within each department. Additionally, stratified sampling allowed for meaningful comparisons among different departments, providing insights into potential variations in practices and outcomes. Finally, it contributed to the efficiency of data collection by targeting employees directly involved in revenue collection and ICT, who possess relevant knowledge and expertise.

3.7 Data

3.7.1 Data Type

Primary qualitative data was used in this research. Qualitative data allowed for the collection of rich and detailed information on the topic. This data includes participants' perspectives, experiences, and insights, which can provide a nuanced understanding of the complex dynamics involved in revenue collection processes. Also, qualitative data enabled a deep understanding of the specific context in which ICT is implemented in revenue collection. Qualitative data allowed the researcher to capture the voices and perspectives of the individuals involved in revenue collection processes. It provided a platform for participants to express their opinions, concerns, and suggestions, which can inform policy and decision-making processes.

3.7.2 Data Sources

The data sources for the research included a variety of qualitative sources. The researcher conducted individual interviews with employees to gather their perspectives and experiences related to ICT usage and its impact on revenue collection. Also, the researcher observed revenue collection processes and interactions between employees and ICT systems in order to understand how ICT is integrated into the daily operations of local authorities and assess its effectiveness in improving revenue collection. The researcher also incorporated some structured questions in questionnaires to gather data.

3.7.3 Data analysis

The data collected from interviews and questionnaires were analysed separately. The transcriptions of the interviews were carefully reviewed to identify common themes and patterns related to the impact of ICT on revenue collection. Thematic analysis was employed, involving the systematic coding of the data to identify key themes and sub-themes. This process allowed for a deep exploration of participants' perspectives, experiences, and challenges in relation to ICT and revenue collection. The findings were then interpreted and presented in a meaningful way, providing qualitative insights into the research topic.

The next step involved integrating the questionnaire and interview findings. This was done by comparing and contrasting the results, seeking convergence and divergence between the two. The researcher examined how the insights from questionnaires were supported or enhanced by the interview results, and vice versa.

3.7.4 Research instruments
3.7.4.1 Questionnaires

In the research study on the effect of ICT on revenue collection in the City of Masvingo Local Authority, Zimbabwe, the decision to use questionnaires as the primary data collection tool is justified due to several reasons. First, questionnaires allow for objective data collection by ensuring standardized and structured responses from a large sample size. Second, they enable wide coverage by reaching a diverse range of individuals within the city, providing comprehensive insights. Third, questionnaires are cost and time-effective compared to other data collection methods. Fourth, they offer anonymity and confidentiality, fostering honest and unbiased responses. Fifth, questionnaires provide standardized measurement, enhancing reliability and validity. Lastly, they facilitate quantitative analysis, allowing for statistical examination of ICT's impact on revenue collection. Together, these justifications support the use of questionnaires within the research study on the effect of ICT in the City of Masvingo Local Authority.

Thirdly, instructions and guidelines were provided to the respondents to ensure a consistent understanding of the questions and response formats. This minimized the potential for misinterpretation and increased the reliability of the collected data. Moreover, the questionnaires employed both closed-ended and Likert scale items, which enabled quantitative measurement and analysis of the collected data. Closed-ended questions provided respondents with specific response options, reducing the likelihood of subjective

interpretation. Likert scale items allowed respondents to indicate their levels of agreement or disagreement on a standardized scale, enhancing the measurement of attitudes and perceptions.

3.7.4.2 Interviews

Interviews were employed in the research study on the effect of ICT on revenue collection in the City of Masvingo Local Authority, Zimbabwe, for several reasons. Firstly, interviews allow for in-depth exploration of participants' perspectives, experiences, and insights regarding the topic. This qualitative approach provides rich and detailed data that can uncover nuanced factors related to ICT and revenue collection. Secondly, interviews offer the opportunity to clarify responses, probe for deeper understanding, and capture participants' thoughts beyond what is expressed in a questionnaire. This ensures a comprehensive understanding of the topic and allows for the exploration of unexpected themes and insights. Additionally, interviews enable researchers to establish trust and rapport with participants, which can encourage open and honest discussions. This level of engagement facilitates the collection of rich and diverse data, enhancing the validity of the study. Finally, interviews allow for contextualization, as researchers can ask follow-up questions specific to the local context of the City of Masvingo Local Authority. This helps to capture the unique dynamics and challenges related to ICT and revenue collection in that setting.

The researcher also sought to minimize observer bias by maintaining neutrality during the interviews, avoiding leading questions, and making sure that participants had the freedom to express their own opinions without influence. Transparency was maintained by documenting the interview process, including recording and transcribing the interviews accurately. This allowed for independent verification of the collected data and ensured the reliability and validity of the information gathered.

3.7.5 Data collection procedures

In the research study on the effect of ICT on revenue collection in the City of Masvingo Local Authority, Zimbabwe, data was collected using interviews and questionnaires.

For interviews, a sample of key stakeholders, including revenue officers, ICT managers, and administrative staff, was selected based on their involvement in revenue collection processes. In-depth interviews were conducted with these participants using semi-structured interview protocols. The interviews allowed for open-ended discussions, where participants shared their experiences, perspectives, and challenges related to ICT and revenue collection. The

interviews were audio-recorded with participants' consent to ensure accuracy in capturing their responses and later transcribed for analysis.

To collect data using questionnaires, a structured questionnaire was developed based on the research objectives and relevant literature. The questionnaire included a combination of closed-ended questions, where respondents chose from predefined response options, and Likert scale items, where respondents indicated their levels of agreement or disagreement on a standardized scale. The questionnaires were either distributed physically or sent electronically to the target participants involved in revenue collection. Participants were requested to complete and return the questionnaires within a specified timeframe.

Both interviews and questionnaires were designed to gather data on various aspects such as the use of ICT, revenue collection practices, challenges faced, and perceptions of the impact of ICT on revenue generation. Combining these data collection methods allowed for a comprehensive understanding of the research topic by capturing both qualitative insights from interviews and quantitative data from questionnaires.

3.8 Reliability and validity

To ensure the reliability and validity of the questionnaires used in the research study on the effect of ICT on revenue collection in the City of Masvingo Local Authority, Zimbabwe, several measures were taken. Firstly, the questionnaires were designed based on existing literature and established measures related to revenue collection and ICT usage. This helped ensure that the questions were relevant, accurate, and aligned with the research objectives. Secondly, pilot testing was conducted with a small sample of respondents from the target population. This allowed for the identification of any ambiguous or confusing questions, as well as any potential issues with the response options. Necessary revisions were made based on the feedback received, enhancing the clarity and comprehensibility of the questionnaires.

The reliability and validity of the interviews in the research study on the effect of ICT on revenue collection in the City of Masvingo Local Authority, Zimbabwe, were ensured through various measures. Firstly, to enhance reliability, a structured interview protocol was developed, consisting of a set of predetermined questions. This ensured consistency in the interview process across different participants, minimizing variations in data collection.

To ensure validity, careful attention was given to the selection of participants. The research team aimed to include a diverse range of stakeholders closely involved in revenue collection and ICT implementation within the local authority. This helped to ensure that the interviews captured a comprehensive and representative perspective. Furthermore, efforts were made to establish rapport and trust with the participants. This helped create a conducive environment where participants felt comfortable sharing their experiences, perceptions, and insights openly. Active listening and probing techniques were employed to encourage participants to provide detailed and relevant responses.

3.9 Ethical considerations

When conducting a research, it is important to consider and address ethical considerations (Bhandari, 2021). This study will adhere to the following ethical considerations:

3.9.1 Informed Consent

The researcher obtained informed consent from the City of Masvingo Local Authority management and employees involved in the research. They were fully aware of the purpose, procedures, and potential risks and benefits of the study, and were told that they have the right to withdraw their participation at any time.

3.9.2 Anonymity and Confidentiality

The researcher ensured participant anonymity and confidentiality. Data collected on revenue collection was kept confidential, and identities were protected to maintain privacy and avoid the potential for harm or breaches of confidentiality.

3.9.3 Researcher Integrity

The researcher conducted the research with honesty, integrity, and transparency. The purpose of the study, potential conflicts of interest, and any affiliations that may influence the research were clearly explained. Maintain objectivity and impartiality throughout the study.

3.9.4 Data Protection

The researcher protected participants' data throughout the research process. This involved securely storing and transmitting data to minimize the risk of unauthorized access or breaches. Appropriate measures, such as encryption or password protection, were implemented to safeguard participant data. The researcher made sure that only authorized individuals have access to the data and that it is used solely for the purposes of the research.

3.9.5 Respect for Participants

The researcher treated participants with respect, sensitivity, and cultural awareness. The researcher's role was clearly explained, and participants were not be coerced, manipulated, or deceived in any way.

3.10 Summary

This chapter provided a detailed explanation of the reasons behind the adoption of the pragmatism research philosophy in the study. It also justified the selection of the case study research design and the mixed research approach. The chapter outlined the population of the study, followed by a discussion of the sample size and the utilization of a stratified sampling technique. Furthermore, the research instruments used and the data collection procedures were described in detail. Ethical concerns related to the study were also addressed in this chapter. Lastly, the chapter explained the data analysis procedure employed in the study.

CHAPTER IV

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.0 Introduction

This chapter presents the results of the research study on the effect of ICT on revenue collection in the City of Masvingo local authority. The chapter delves into the analysis and interpretation of the collected data to provide insights into the impact of ICT adoption on revenue collection processes. The results presented in this chapter contribute to a deeper understanding of the relationship between ICT and revenue collection, and shed light on the existing revenue collection processes and systems in the City of Masvingo local authority and potential technological interventions that can enhance revenue collection for the local authority. This chapter begins by discussing the response rate to the questionnaires and any challenges encountered during data collection. It then explores the demographics of the questionnaire respondents, including their age, gender, educational background, and professional experience. The chapter goes on to analyze the findings derived from the questionnaires. Additionally, it delves into the outcomes of the interviews conducted with the employees involved in revenue collection, providing valuable insights from their perspectives.

4.1 Response rate to Questionnaires

The response rate to the questionnaires was evaluated for a sample consisting of 30 employees. The response rate refers to the percentage of individuals who completed and returned the questionnaires out of the total number of questionnaires distributed. The researcher analyzed the number of questionnaires that were completed and returned by the participants. This assessment allowed the researcher to determine the level of participation in our study and the representativeness of the collected data.

In this specific case, 28 out of 30 questionnaires were returned, resulting in a response rate of 93.3%. This indicates that the majority of the participants, 93.3% to be precise, completed and returned the questionnaires. It suggests a fairly high level of participation and engagement among the respondents, providing a solid basis for analyzing the data and drawing meaningful conclusions for the research.

4.2 Demographics of questionnaire respondents

4.2.1 Gender Distribution

The gender distribution of the returned questionnaires was analyzed. The chart below shows the gender distribution.
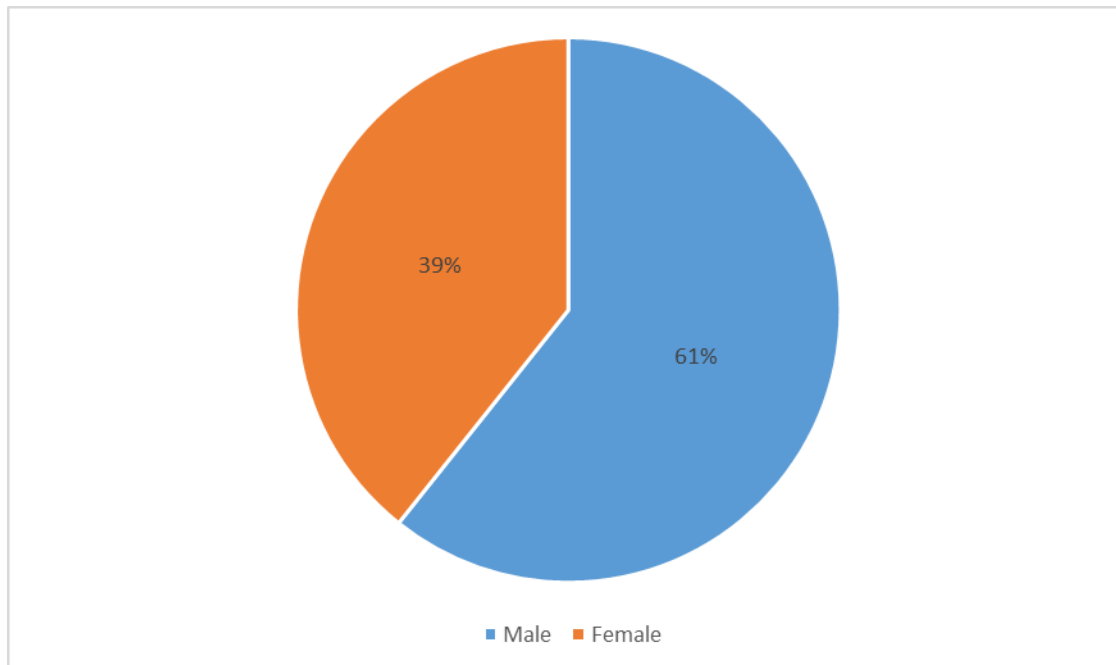
Figure 4.1 Gender Distribution of employees who returned questionnaires

Source: Research Data (2023)

Out of the questionnaires that were returned, we examined the male and female participants to assess the gender distribution. The gender distribution of the returned questionnaires revealed that there were 17 male respondents (61%) and 11 female respondents (39%). This indicates that the sample had a higher representation of males compared to females. This information highlights the need for further exploration and consideration of gender-related factors when analyzing and interpreting the research results.

4.2.2 Age Distribution

The age of the employees who filled the questionnaires is presented in the chart below.
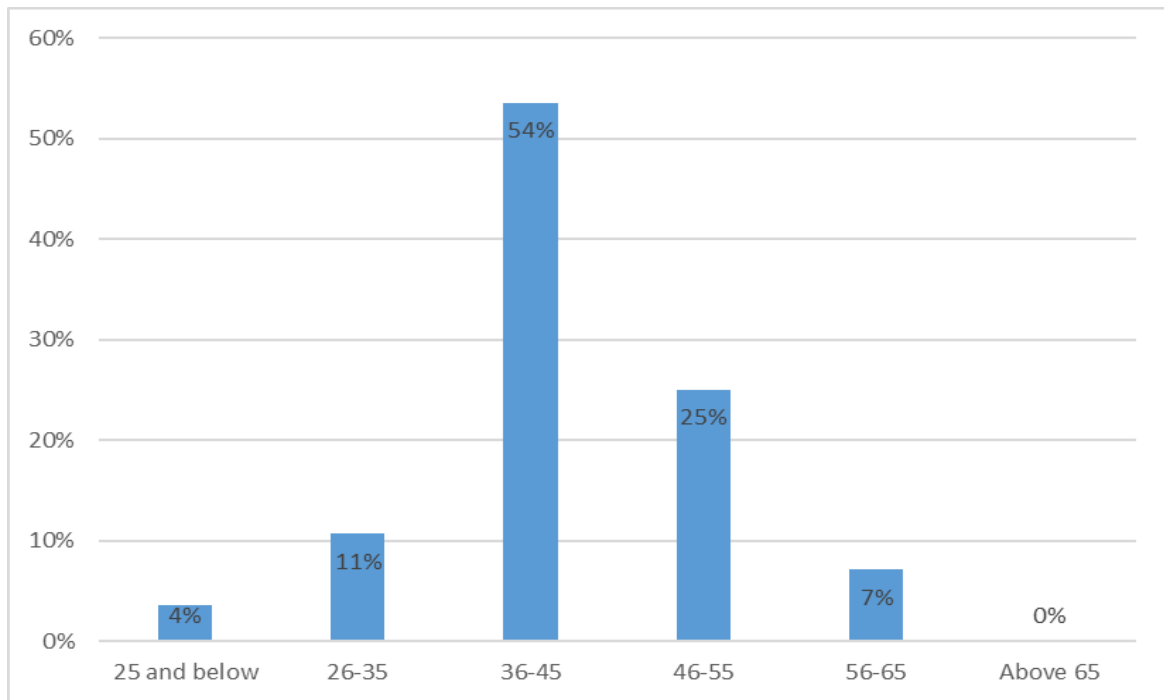
Figure 4.2 Age Distribution of employees who returned questionnaires

Source: Research Data (2023)

In this study, 4% (1 respondent) were aged 25 and below, indicating that a small proportion of the participants fell within this age group. This age range may represent individuals who are early in their careers or are still in the process of completing their education, and their perspectives on the effect of ICT on revenue collection may differ from those with more professional experience. The age range of 26-35 accounted for 11% of the participants, indicating a slightly larger representation in this category. This age group often encompasses individuals who are early to mid-career professionals, and their experiences and perspectives may be influenced by their familiarity with technological advancements. The most significant proportion was found within the age range of 36-45, constituting 54% of the sample. This sizable representation suggests that individuals in the prime of their careers were well-represented in the research. Their experiences and insights provided valuable perspectives on the impact of ICT on revenue collection, considering their professional backgrounds. The age range of 46-55 represented 25% of the participants, indicating a substantial representation of mid to late career professionals. This age group may offer viewpoints shaped by both their extensive experience in revenue collection and their interactions with ICT throughout their careers. A smaller portion, 7% of the participants, fell within the age range of 56-65. These individuals likely possess significant experience and expertise in revenue collection, and their perspectives may reflect long-standing practices as well as potential challenges and

advancements in utilizing ICT in their work. Lastly, there were no participants above the age of 65 in the sample.

4.2.3 Level of Qualification

The chart below shows the level of qualification of the employees who returned the questionnaires.
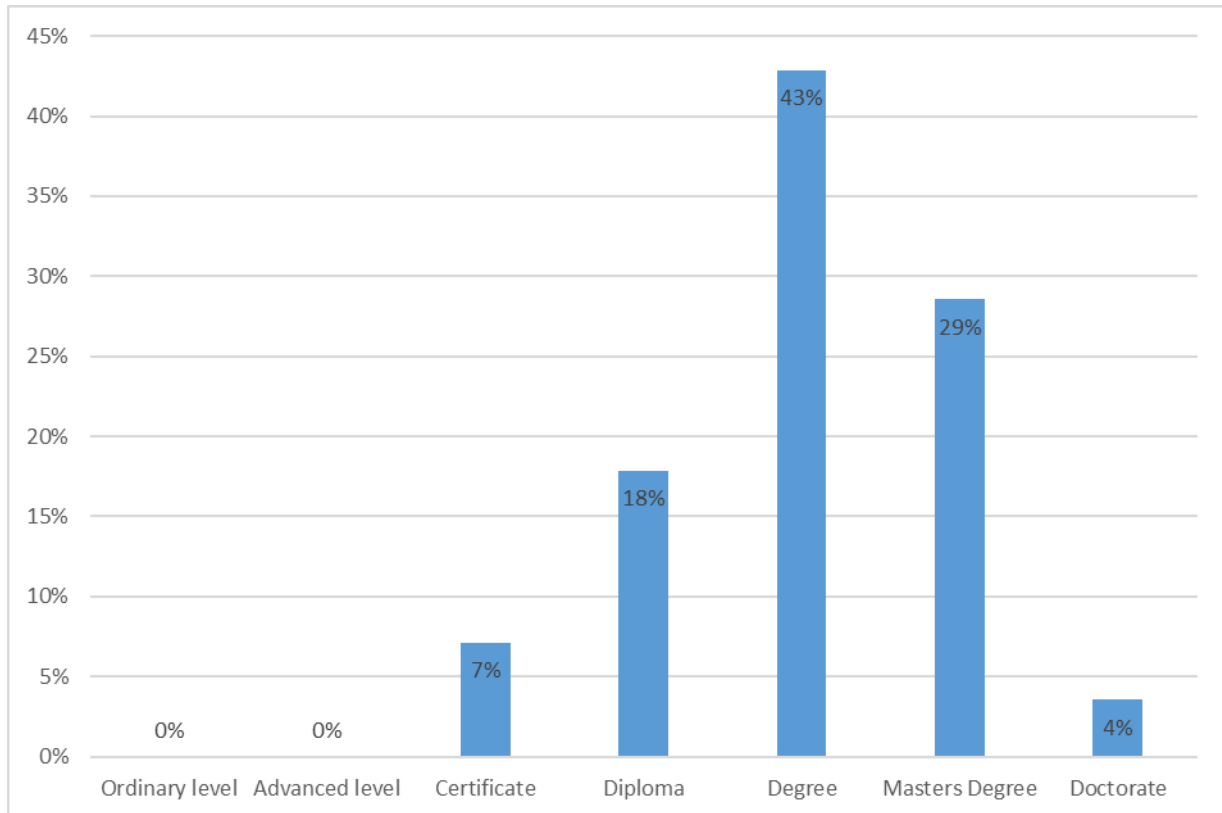
Figure 4.3 Qualifications of employees who filled questionnaires

Source: Research Data (2023)

There were no individuals with an Ordinary level qualification or an Advanced level qualification. A small proportion, 7% of the participants, held a Certificate as their highest qualification. Certificate programs often provide technical or vocational training in specific fields, and individuals with this qualification may have a practical understanding of the subject matter related to revenue collection. 18% of the participants had a Diploma, which typically represents a higher level of education than a Certificate. Diploma programs are often more comprehensive and provide specialized knowledge in specific areas. Participants with a Diploma may possess a deeper understanding of revenue collection practices and the potential impact of ICT in this context. The largest proportion, 43% of the participants, held a Degree as their highest qualification. Obtaining a Degree generally involves a broader and

more comprehensive study across various subjects. Participants with a Degree may have a well-rounded understanding of revenue collection practices and could provide valuable insights into the influence of ICT in this domain. 29% of the participants held a Master's Degree, suggesting an advanced level of education beyond a Bachelor's Degree. Individuals with a Master's Degree may have specialized knowledge and expertise in specific areas related to revenue collection and ICT. Their insights and perspectives could provide a deeper understanding of the subject matter. A smaller proportion, 4%, held a Doctorate - the highest level of academic qualification. Participants with a Doctorate likely possess extensive knowledge and expertise in their respective fields. Their insights may be particularly valuable in exploring complex and specialized aspects of ICT and revenue collection.

4.2.4 Working experience

The chart below shows the working experience of the respondents.
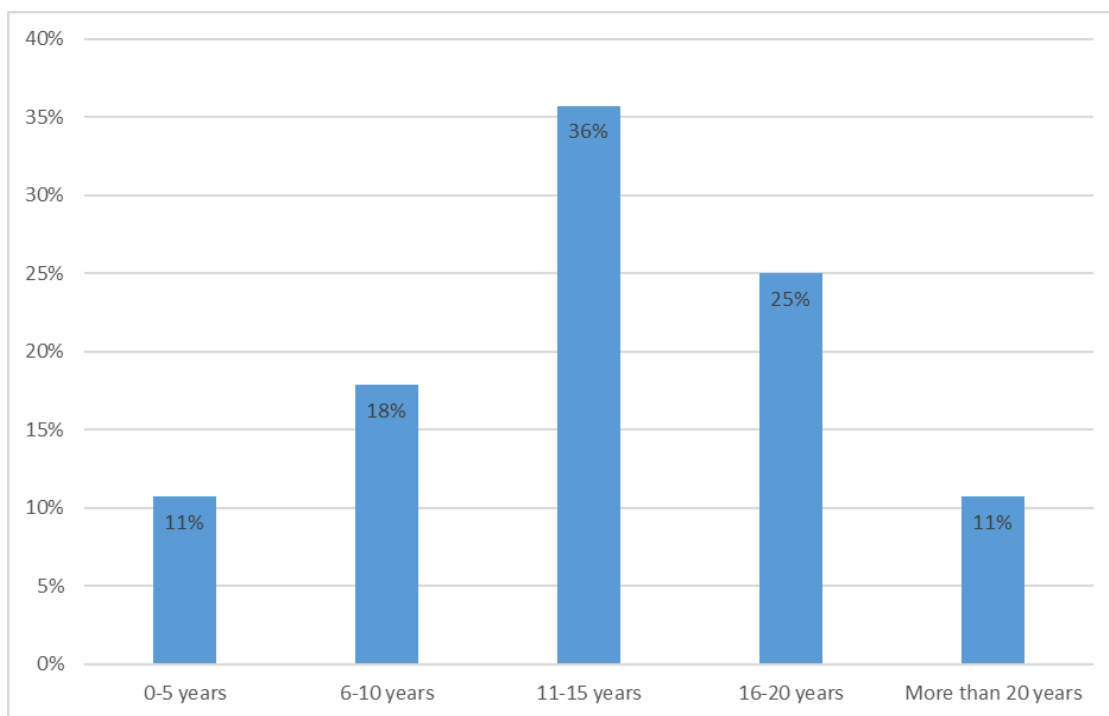
Figure 4. 4 Working experience of respondents

Source: Research Data (2023)

From the results, 11% of the respondents had 0-5 years of working experience. These individuals are relatively new to the local authority and may have limited exposure to the aspects of revenue collection and the use of ICT in this context. 18% of the respondents had 6-10 years of experience. This group has gained some familiarity with revenue collection practices at the City of Masvingo and may have observed the evolution and integration of

ICT during their careers. They are likely to have some insights into the impact of ICT on revenue collection based on their intermediate level of experience. 36% of the respondents had 11-15 years of working experience. This larger proportion suggests that a substantial number of participants have acquired considerable expertise in revenue collection practices. They may have witnessed significant technological advancements and their effects on revenue collection. Their insights can provide valuable perspectives on the integration and impact of ICT in this domain. 25% of the respondents had 16-20 years of experience. This group represents professionals who have spent a significant portion of their careers in revenue collection. Their experience covers a substantial period during which ICT has likely made significant advancements that have influenced their practices and perceptions. Their insights may provide a nuanced understanding of the long-term effects, benefits, and challenges related to ICT in revenue collection. 11% of the respondents had more than 20 years of experience. These individuals have extensive professional experience and have lived through significant changes in revenue collection practices. Their insights can offer a historical perspective on the evolution of ICT and its impact on revenue collection over the years.

4.3 Questionnaire findings

4.3.1 The existing revenue collection processes and systems in the City of Masvingo

The responses gathered from the questionnaires submitted by the employees in the City of Masvingo, provided a diverse range of perspectives on the current revenue collection processes. Some employees expressed satisfaction with the efficiency and effectiveness of the processes, highlighting the utilization of modern technology and streamlined procedures. They mentioned that payments were processed promptly, reducing waiting times and enhancing overall efficiency. These employees appreciated the accessibility of up-to-date information and the ease of conducting transactions. However, a significant number of employees expressed concerns about the revenue collection processes. They described them as disorganized and outdated, particularly due to a heavy reliance on manual systems. They cited the manual methods as contributing to delays and errors during the payment process, leading to frustration among both employees and residents. The lack of automation also resulted in long waiting times and queues, hindering operational efficiency. Employees also identified instances of lost or misplaced documents, further exacerbating the inefficiencies. Transparency and accountability were also significant areas of concern. Many employees desired greater access to information regarding how the collected funds were being utilized

for the development of the local authority. They expressed a need for more comprehensive and transparent financial reports and records to better understand the allocation and management of funds. The current system provided limited visibility, fostering uncertainty and doubt among employees regarding the administration of revenues. Furthermore, employees raised concerns about the administrative burden associated with the revenue collection processes. They felt that excessive paperwork was required, creating an additional workload that detracted from their overall productivity. This extensive administrative work also impeded employees from focusing on other vital tasks within their roles, affecting efficiency and effectiveness in other areas.

Furthermore, employees responded regarding the effectiveness of the existing revenue collection processes and systems displayed a range of perspectives. Firstly, some employees expressed satisfaction with the current processes, perceiving them to be generally effective. They highlighted factors such as timely processing of payments and efficient resource utilization. According to these employees, the existing systems were deemed adequate for revenue collection and met the needs of the local authority. Their positive experiences might be attributed to efficient handling of payments and adherence to established procedures. However, a significant number of employees held concerns about the effectiveness of the current revenue collection processes. They described various challenges that hindered the perceived effectiveness of the system. Disorganization within the processes, long waiting times, excessive paperwork, and errors during the payment process were among the issues highlighted. These concerns indicated that improvements were needed to enhance the overall efficiency and effectiveness of the revenue collection system.

In terms of strengths, some employees mentioned consistent and timely processing of payments as a positive aspect of the current system. They appreciated the efforts made by the personnel involved in carrying out these processes efficiently and effectively. Additionally, employees acknowledged the availability of certain resources that aided in revenue collection. Adherence to established procedures was also noted as a strength of the system, providing a structured framework for revenue collection. However, employees also identified several weaknesses in the current processes and systems. Transparency and accountability were a significant concern, with employees expressing a desire for more information regarding fund allocation and utilization. Limited access to such information was seen as a weakness that could be addressed to foster increased transparency. Disorganization within the processes was another weakness that employees highlighted. Delays, errors, and confusion

were cited as problems resulting from this lack of organization. Some employees also expressed frustration with excessive paperwork and the reliance on manual systems, which they perceived as contributing to inefficiencies and an increased workload.

The participants were asked to share their suggestions for improvements or changes to the revenue collection processes and systems in the City of Masvingo. The responses varied in terms of the proposed enhancements and modifications. Some employees emphasized the need for enhancing the digitization efforts in revenue collection processes, suggesting the implementation of online payment platforms and mobile payment options to expedite transactions. They believed that such technological advancements would not only improve efficiency but also enhance the convenience for both residents and the local authority administration. Others focused on the importance of improving transparency and accountability in revenue collection. They suggested setting up a robust monitoring system to prevent any potential corruption or malpractice and ensure that all collected funds are allocated appropriately to the designated projects and initiatives. A few employees believed that there is a need for better communication and awareness campaigns to educate the public on the importance of paying their dues on time. They recommended conducting workshops or seminars to inform residents about the revenue collection processes and the impact it has on the overall development of the local authority. In addition, some employees highlighted the need for streamlining the payment methods and providing multiple options for settling outstanding dues. They proposed introducing payment plans or flexible installment options to ease the financial burden on residents, particularly during challenging economic times.

4.3.2 Potential ICT interventions that can enhance revenue collection for the City of Masvingo

Employees were surveyed about their perception of the impact of implementing online payment systems on the speed and efficiency of payment processes. The responses provided a diverse range of perspectives, shedding light on the various viewpoints held by the employees. A group of employees expressed a positive outlook, emphasizing that the implementation of online payment systems has significantly improved the speed and efficiency of payment processes in the local authority. They pointed out that these systems have reduced the need for cumbersome manual paperwork, thereby streamlining the entire payment process. Furthermore, the employees noted that online payments have eliminated the need for individuals to physically visit payment centers or stand in long queues, resulting in faster and more convenient transactions. However, not all employees shared such an

enthusiastic viewpoint. Some participants had a more neutral stance, suggesting that the impact of online payment systems on the speed and efficiency of payment processes in Masvingo is moderately positive. While they acknowledged the advantages of convenience and reduced paperwork, they brought attention to occasional technical glitches or system failures that could hinder the smooth operation of online payments. Additionally, these employees highlighted the need for increasing awareness and understanding of online payment systems among citizens, as many may still be unfamiliar or hesitant to use them. In contrast, there were a few employees who expressed a somewhat negative perception of the impact of online payment systems on the speed and efficiency of payment processes. They raised concerns about connectivity issues and system failures that could disrupt transactions. Moreover, they emphasized the importance of continuous training and support for users in order to fully harness the potential of online payment systems.

When asked about the potential benefits they anticipate from the adoption of automated billing processes in terms of ensuring up-to-date payments, the responses from the employees in the City of Masvingo varied. Many employees expressed a neutral viewpoint, acknowledging both the potential advantages and potential challenges associated with automated billing processes. Some employees highlighted the anticipated benefits of efficiency and accuracy in payment processing. They believed that automated billing processes would eliminate errors commonly found in manual billing systems. They also anticipated that automated billing systems would ensure faster invoice generation, delivery, and update, which in turn could prompt customers to make more timely payments. Others emphasized the potential for increased convenience and accessibility for both customers and businesses. They anticipated that automated billing processes would allow customers to receive invoices promptly and make payments at their convenience, reducing delays and improving overall payment timeliness. Employees also acknowledged the potential for automated billing to enhance transparency by providing customers with real-time payment information and allowing them to track their payment history more easily. However, some employees expressed concerns about the potential challenges that may arise with the adoption of automated billing processes. They raised issues such as potential technical glitches, system failures, and the need for additional training and support to ensure smooth implementation and effective usage of automated billing systems. They also noted that a transition from manual to automated billing processes may require initial adjustments for both customers and staff members, which could impact payment timeliness during the initial stages.

The questionnaire responses from the employees provide valuable insights into their opinions on how digitized record-keeping can contribute to improving the accuracy of revenue records. One key aspect that emerged from the responses is the prevailing sentiment that replacing manual data entry and paper-based record-keeping systems with digital alternatives would greatly enhance the accuracy and efficiency of managing revenue records. Many employees emphasized the inherent risks and limitations of relying on manual processes, which are prone to errors and can be time-consuming. By implementing digitized record-keeping systems, they believe that the City of Masvingo can significantly reduce human errors and free up valuable resources that can be redirected towards other essential tasks. The employees also highlighted the importance of real-time updates and reduced delays in record-keeping processes. They noted that digitization can enable revenue records to be updated and accessed promptly, leading to streamlined revenue collection and management activities. This, in turn, facilitates faster decision-making and provides greater transparency in financial operations within the local authority.

In addition to the efficiency gains, respondents mentioned the potential for improved data analysis through digitized record-keeping. With digital systems in place, it becomes easier to leverage data analytics tools to identify patterns, trends, and anomalies in revenue records. This analysis can be crucial in making informed decisions regarding revenue allocation, forecasting, planning, and budgeting processes for the City of Masvingo. Furthermore, employees acknowledged the increased data security and confidentiality that digitized record-keeping systems can offer. By implementing appropriate data protection measures, such as encryption and restricted access, they believe that the risks of unauthorized access or data loss can be mitigated. This aspect is especially important when dealing with sensitive financial information and ensuring compliance with data protection regulations. However, it's important to note that while the majority of respondents had a positive outlook on digitized record-keeping, some expressed concerns about the challenges associated with implementation. Specifically, they raised issues related to technological infrastructure and the need for adequate training to ensure that all staff members can effectively utilize the new system. Addressing these concerns would be essential to ensure a smooth transition and maximize the benefits of digitized record-keeping.

Also, regarding how online payment systems, automated billing processes, and digitized record-keeping collectively influence the overall speed and efficiency of revenue collection in the City of Masvingo, the general consensus among the respondents is that these digital

solutions have a positive impact on the revenue collection process. Employees highlighted online payment systems as a key driver of improved speed and efficiency. They emphasized that facilitating electronic payments for residents and businesses eliminates the need for physical transactions, reduces delays, and expedites the revenue collection process. Additionally, online payment systems were seen as offering convenience, allowing users to make payments at any time and from anywhere, thereby enhancing the overall efficiency of revenue collection. Automated billing processes were also viewed as critical for ensuring speed and accuracy. The employees acknowledged that automating the billing process eliminates potential human errors and minimizes the time and effort required for manual calculations and invoicing. By streamlining these processes, automated billing contributes to expedited revenue collection and improved efficiency. Digitized record-keeping emerged as another significant factor in enhancing the overall speed and efficiency of revenue collection. Employees described how transitioning from paper-based systems to digital record-keeping allows real-time access and updates, resulting in more streamlined processes. The ease of data analysis offered by digitized record-keeping was also highlighted, ensuring accuracy and up-to-date revenue records. This, in turn, facilitates prompt retrieval of information when required, further contributing to efficient revenue collection. It's worth noting that while the majority of respondents viewed these digital solutions positively, some acknowledged potential challenges that need to be addressed. These challenges mainly revolved around technological infrastructure and the need for adequate training. Employees recognized the importance of having robust infrastructure to support online payment systems, automated billing, and digitized record-keeping. Furthermore, ensuring sufficient training for both employees and users was seen as crucial for maximizing the benefits and achieving the desired speed and efficiency in revenue collection.

Furthermore, the employees provided valuable insights into their perceptions regarding the influence of online payment systems, automated billing processes, and digitized record-keeping on the overall speed and efficiency of revenue collection. The responses reflect a range of viewpoints on this matter. Some employees expressed positive views about these digital solutions, highlighting the potential benefits they bring to revenue collection. They believed that online payment systems could have a positive impact on speed and efficiency by eliminating the need for physical transactions and reducing delays. The convenience of online payments was also emphasized as a factor that can improve revenue collection by allowing users to make payments at their convenience. Furthermore, employees recognized

that automated billing processes could save time and minimize errors by automating calculation and invoicing tasks. Additionally, digitized record-keeping was perceived as a potential facilitator for real-time access and updates, reducing processing times and enhancing overall efficiency. On the other hand, several employees expressed reservations or uncertainties about the influence of these digital solutions on revenue collection speed and efficiency. They raised concerns about the readiness of the technological infrastructure to support online payment systems and the potential challenges associated with their implementation. Additionally, employees highlighted the necessity for adequate training to ensure that staff members and users are proficient in utilizing these digital solutions effectively.

The employees also provided insights into their beliefs regarding the ways in which the implementation of ICT interventions can contribute to ensuring accurate and up-to-date revenue records in the City of Masvingo. The employees expressed various perspectives on this matter. Many employees highlighted the potential benefits of ICT interventions in promoting accurate and up-to-date revenue records. They believed that these interventions, such as digitized record-keeping systems and automated processes, can significantly reduce human errors and improve data accuracy. By eliminating manual data entry and paper-based systems, they believed that the risk of data inconsistencies and mistakes would be minimized, leading to more accurate revenue records. Respondents also mentioned the real-time nature of ICT interventions as a key driver of accuracy and up-to-date revenue records. They emphasized that digital systems allow for immediate updates and access to information. This capability can ensure that revenue records are always current and reflective of the most recent transactions, preventing data discrepancies and enhancing accuracy.

Additionally, employees identified the potential for enhanced data analysis as a way in which technological interventions can contribute to accurate revenue records. They believed that by utilizing data analytics tools, digitized systems can enable the identification of patterns, trends, and anomalies in the revenue records. This analysis can help in detecting errors or inconsistencies and facilitate prompt corrections, promoting accurate and up-to-date data. However, it's important to note that some employees also expressed concerns about the challenges that may arise during the implementation of these technological interventions. They raised awareness of potential issues such as technological infrastructure limitations, the need for adequate training, and ensuring data security and privacy. Addressing these concerns

effectively would be crucial to realizing the full potential of these technological interventions in ensuring accurate and up-to-date revenue records.

4.3.3 The impact of the ICT interventions on revenue collection for the City of Masvingo local authority

Out of the 28 employees who participated in the questionnaire, a significant majority (75%) acknowledged that the implementation of online payment systems has had a positive impact on facilitating quick payment processes for the City of Masvingo. They emphasized that it has streamlined the revenue collection process by eliminating the need for manual handling of cash and reducing paperwork. According to their responses, online payment systems have expedited transactions, making it more convenient and time-saving for both the residents and the local authority. By enabling payments to be made electronically, employees noted that it has improved efficiency and reduced queues and long waiting times for payment processing. Furthermore, employees highlighted that online payment systems have enhanced revenue collection by providing a secure and transparent payment method. They mentioned that it has significantly reduced the risks associated with handling large amounts of cash, such as theft or misplacement, and minimized the potential for financial discrepancies. The convenience of online payment systems has also been noted. Employees mentioned that residents can now make payments at any time, from any location, expanding payment options beyond traditional office hours. This round-the-clock accessibility has further improved the efficiency of the revenue collection process. However, it is important to note that a small minority (25%) of employees expressed concerns about the effectiveness of the implementation process. They pointed out technical glitches in the system, limited access to reliable internet, and a lack of user-friendly interfaces as challenges that need to be addressed. These concerns indicate the need for proper infrastructure and technical support to enable the smooth functioning of online payment systems.

On the extent to which automated billing processes have contributed to ensuring up-to-date payments for the local authority is as follows, the responses indicate a mixed opinion among the employees regarding the contribution of automated billing processes to ensuring up-to-date payments for the City of Masvingo's local authority. A slight majority of employees (53%) believe that automated billing processes have played a significant role in ensuring up-to-date payments. They highlight that the automation has improved efficiency in generating and delivering bills promptly, resulting in quicker and more accurate payment processing. These employees mention that the automated system has reduced delays in bill delivery and

enhanced transparency. They also note that it has facilitated immediate notifications and reminders for payment, thereby encouraging timely settlement of outstanding bills. This, in turn, has led to an increase in revenue collection for the local authority. On the other hand, a notable proportion of employees (47%) express reservations about the extent to which automated billing processes have contributed to ensuring up-to-date payments. They argue that while automation has its benefits, it has not completely solved the problem of late or overdue payments. According to their responses, certain challenges persist, such as technical errors in generating bills, limited understanding or familiarity with the new system among residents, and occasional system failures that disrupt the billing process. These factors, they argue, have hindered the effectiveness of automated billing processes in ensuring up-to-date payments.

According to questionnaire responses, the overwhelming majority of employees (93%) perceive that digitized record-keeping has positively influenced the accuracy of revenue records for the City of Masvingo. They view the adoption of digital systems as a significant improvement over traditional manual record-keeping methods. According to their responses, digitized record-keeping has enhanced accuracy by reducing the risk of errors commonly associated with manual entry and paper-based systems. Employees noted that digitization has minimized the chances of data loss, misplacement, or transcription mistakes, resulting in more reliable and error-free revenue records. Moreover, employees believe that digitized record-keeping has improved data accessibility for the City of Masvingo. They mentioned that digital systems allow for easier search, retrieval, and cross-referencing of information, thereby increasing efficiency and minimizing time-consuming manual searches for revenue records. This improved accessibility further contributes to the accuracy of revenue records. Employees also expressed that digitized record-keeping has enhanced transparency and accountability in revenue management. They mentioned that digital systems provide an audit trail and allow for better tracking and monitoring of financial transactions. This transparency not only ensures the accuracy of revenue records but also helps detect and prevent fraudulent activities. However, a small minority of employees (7%) expressed reservations or had a neutral opinion regarding the influence of digitized record-keeping on the accuracy of revenue records. Some raised concerns about potential technical glitches or system failures that could affect data integrity. Others mentioned a learning curve associated with transitioning from traditional record-keeping methods to digital systems.

Employees identified several specific ways in which ICT interventions have positively impacted the revenue collection process for the City of Masvingo local authority. Firstly, employees mentioned that the implementation of online payment systems has greatly facilitated quicker payment processes. By allowing residents to make payments electronically, the need for manual handling of cash and time-consuming paperwork has been eliminated. This has reduced transaction times, resulting in faster and more efficient payment processing. Furthermore, employees noted that online payment systems have contributed to more up-to-date payments. The convenience of being able to make payments at any time has encouraged timely settlement of outstanding bills. Additionally, immediate notifications and reminders for payment have further promoted prompt payments, ensuring that the local authority receives revenue in a timely manner.

On of record-keeping, employees highlighted that technological interventions have led to more accurate records. The digitization of record-keeping processes has reduced the risk of errors commonly associated with manual entry and paper-based systems. This improvement in accuracy has not only enhanced the reliability of revenue records but has also facilitated efficient search, retrieval, and cross-referencing of data. Moreover, employees emphasized that technological interventions have improved overall efficiency in the revenue collection process. Automated billing processes have enabled prompt generation and delivery of bills, reducing delays. This efficiency has resulted in quicker processing times and improved customer satisfaction. While the overall sentiment regarding the impact of technological interventions on the revenue collection process was positive, a few employees mentioned challenges. They pointed out occasional technical glitches or system failures, as well as limited accessibility to reliable internet, which may hinder the full potential of these interventions.

4.3.4 Recommendations for implementing and improving ICT-driven revenue collection systems in the City of Masvingo local authority

The questionnaire responses from the employees in the City of Masvingo local authority provide valuable insight into the recommendations for effectively implementing online payment systems in the revenue collection process. Firstly, the respondents emphasized the importance of conducting comprehensive education and training programs. It is essential to educate both employees and customers about the benefits and processes of online payment systems. Clear and concise guidelines should be provided to ensure that all stakeholders understand how to access and utilize the system effectively. Secondly, the employees

highlighted the necessity of an intuitive and user-friendly platform. The online payment system should be designed to be compatible with various devices such as smartphones, tablets, and computers. It should be accessible to individuals with limited technical knowledge. A user-friendly interface will encourage widespread adoption of the system and enhance the overall payment experience. Thirdly, the respondents emphasized the paramount importance of security in online transactions. To build trust and foster user confidence, robust security measures should be implemented. This includes encryption, firewalls, and secure payment gateways to protect sensitive user data. By ensuring that the online payment system is secure, the City of Masvingo can mitigate risks and protect the privacy of its customers. Furthermore, the respondents suggested that the City of Masvingo local authority should streamline its internal processes to align with the online payment system. Integrating the system with existing workflow and providing adequate staff training will ensure a seamless transition and enhance the overall efficiency of revenue collection processes. Lastly, effective communication and marketing campaigns were seen as crucial for successful implementation. The employees recommended promoting awareness and trust in the online payment system. This can be achieved through various channels such as social media, websites, and traditional media outlets. By raising public awareness and addressing any concerns or misconceptions, the City of Masvingo can encourage widespread adoption of the system and improve revenue collection efficiency.

The employees in the City of Masvingo local authority in Zimbabwe shed light on steps that can be taken to improve the automated billing processes and ensure up-to-date payments. One of the key recommendations highlighted by the respondents is the need to enhance communication and awareness. They suggested implementing regular reminders through various channels such as SMS, email, or postal notifications. By keeping residents informed about their billing responsibilities and due dates, the local authority can prompt timely payments and reduce delinquencies. Simplifying the billing system was another crucial suggestion made by the respondents. They emphasized the importance of providing clear and easily understandable bills with itemized charges and explanations. Furthermore, incorporating online self-service portals can allow residents to access and manage their bills conveniently. This feature can enable them to view their payment history and set up automated payment options, thus making the payment process more efficient. Respondents also emphasized diversifying payment options to cater to different preferences and circumstances. They recommended offering various payment methods such as online

banking, mobile money, bank transfers, and cash payment options. This allows residents to choose the payment method that suits them best, thus promoting convenience and increasing the likelihood of on-time payments. Another important recommendation was to improve data accuracy and integration within the billing processes. The respondents recommended implementing robust data management systems to ensure accuracy and seamless integration between different departments that handle billing and payment processing. This step can help reduce billing errors and streamline the payment reconciliation process. Lastly, respondents highlighted the importance of strengthening customer support services. They recommended establishing a dedicated helpline and prompt email support to address any billing inquiries or concerns that residents may have. Providing clear contact details for customer support and ensuring efficient response times can help residents feel supported throughout the payment process, which can improve satisfaction and reduce payment delays.

Regarding the implementation and enhancement of digitized record-keeping systems for more accurate revenue records, several key themes emerged. Firstly, one prominent suggestion was the need for investing in modern and reliable software solutions specifically designed for record-keeping. Employees emphasized the significance of utilizing software that is both efficient and user-friendly, allowing for easy data entry and retrieval. This implies that the City of Masvingo Local Authority should prioritize acquiring software that is tailored to their specific record-keeping requirements. Furthermore, the questionnaire responses highlighted the importance of comprehensive training programs. Employees stressed the need to provide thorough training to all staff members to ensure they are proficient in utilizing the digitized record-keeping systems. By doing so, they can minimize errors and maximize the efficiency of the systems. This indicates that the organization should allocate resources to train employees on how to effectively use the software and its associated features. Integration with other departments within the City of Masvingo Local Authority was also emphasized. Participants suggested that seamless data sharing between departments would streamline processes and contribute to more accurate revenue records. This feedback highlights the need for a cohesive and integrated approach to record-keeping within the organization.

Additionally, the respondents stressed the importance of regular updates and maintenance. They emphasized the significance of dedicating resources to keep the digitized record-keeping systems up-to-date, ensuring optimal performance and security. This involves continuous monitoring, troubleshooting, and implementing software updates and patches as necessary. Moreover, the questionnaire responses revealed a strong consensus on the need for

backup and recovery systems. Employees expressed the need for reliable mechanisms to store and protect data, mitigating the risk of data loss or system failures. This indicates that the City of Masvingo Local Authority should implement robust backup procedures to safeguard data integrity.

The employees also gave recommendations for successfully implementing and improving technology-driven revenue collection systems. One key suggestion from the respondents was the importance of investing in robust and secure online payment systems. They emphasized the need to partner with reliable payment service providers to ensure seamless and secure online transactions. By integrating secure payment gateways into the existing revenue collection systems, the City of Masvingo Local Authority can provide a convenient and secure online payment option for residents. Another significant recommendation was the implementation of automated billing processes. Employees highlighted the benefits of systems that can generate accurate and timely bills automatically, minimizing manual intervention and reducing errors. By adopting billing software and establishing real-time integration with the record-keeping system, the City of Masvingo Local Authority can streamline and expedite the billing process while minimizing the risks of inaccuracies or delays. The incorporation of digitized record-keeping systems was also stressed as a crucial factor. Employees emphasized the need for user-friendly interfaces that enable easy data entry and retrieval to ensure accurate records.

By utilizing software specifically designed for record-keeping purposes, the City of Masvingo Local Authority can streamline record-keeping processes and maintain accurate and up-to-date financial records. To achieve quick payment processes and up-to-date payments, respondents recommended offering various payment options to users. This includes providing online payment gateways and enabling mobile payment methods. Exploring partnerships with mobile network operators to facilitate mobile payment services was also suggested. By offering multiple payment options, the City of Masvingo Local Authority can cater to the diverse preferences of residents and expedite payment processes. Ensuring accurate records emerged as a common concern among the participants. They suggested implementing regular reconciliation procedures to cross-check revenue collection data with bank statements and other relevant sources. This would help detect and rectify any discrepancies in the records, ensuring the accuracy and integrity of financial data. Additionally, employees emphasized the importance of continuous training programs for staff members. They recommended regular training sessions on the use of technology-driven

revenue collection systems and their associated processes. Providing ongoing training opportunities would enhance employee competence, reduce errors, and promote efficient utilization of the systems, ultimately leading to improved revenue collection processes.

Furthermore, the employees' responses revealed a range of potential long-term benefits for the City of Masvingo Local Authority in embracing and enhancing technology-driven revenue collection systems. Firstly, the implementation of online payment systems was seen as a positive development. It was noted that such systems would increase convenience and accessibility for residents, businesses, and other stakeholders, allowing them to make payments from anywhere and at any time. This would, in turn, lead to faster and more efficient payment processes, reducing the reliance on physical payment methods and associated paperwork. Automated billing processes were identified as a key driver for achieving efficiency and accuracy. Employees recognized that automating the billing processes would eliminate manual errors, reduce processing time, and enhance transparency. By generating bills automatically, the City of Masvingo Local Authority could improve its revenue collection rates and financial reporting, ultimately contributing to up-to-date and accurate payment records. The adoption of digitized record-keeping systems was seen as a means to streamline operations, enhance data security, and improve data accessibility. Employees believed that by digitizing record-keeping, the City of Masvingo Local Authority would be able to maintain comprehensive and accurate records of revenue collection processes. This would enable more effective financial analysis, auditing, and decision-making, ultimately contributing to accurate, up-to-date, and reliable financial records. Furthermore, the respondents recognized that technology-driven revenue collection systems could lead to increased revenue for the City of Masvingo Local Authority. The quick payment processes and simplified payment options offered by online systems were identified as potential incentives for residents and businesses to promptly pay their dues. Additionally, the efficient and accurate record-keeping facilitated by digitization could minimize revenue leakage and enhance compliance monitoring, resulting in improved revenue collection rates.

4.4 Interview Results

In interviews with the employees of the City of Masvingo local authority, they were asked to describe the current revenue collection processes and systems used by the organization. Their responses revealed certain key points. Firstly, a majority of the employees acknowledged that the revenue collection processes in place were largely manual and paper-based. They mentioned the existence of physical receipt books that are used to document and record

payments made by residents and businesses. Additionally, some employees highlighted the use of counter-based collection points where citizens can come and make payments in person.

However, the employees also mentioned several challenges associated with the current processes and systems. One common issue raised was the lack of efficiency and timeliness in revenue collection. They expressed concerns about delays in processing payments and issuing receipts, which often led to frustration among residents. Furthermore, the interviewees emphasized the need for improved automation and digitization of revenue collection. They mentioned the potential benefits of implementing electronic payment systems and online platforms, which would not only enhance convenience for taxpayers but also streamline the overall collection process. Another point highlighted by the employees was the importance of transparency and accountability. Some respondents mentioned the lack of a centralized database or system for monitoring and reconciling revenue collections, making it difficult to track and verify payments.

In conducting interviews with the employees of the City of Masvingo local authority, they were asked to share their experiences regarding challenges and limitations associated with the existing revenue collection processes in the organization. The employees universally expressed concerns about the inefficiencies and delays in the current revenue collection processes. They cited issues such as lengthy processing times, manual data entry, and the use of paper-based systems. These factors contribute to a slow and cumbersome collection process, causing frustration among both employees and residents. Additionally, the interviewees emphasized the lack of transparency and accountability in the existing processes. They mentioned difficulties in tracking and reconciling collected revenues due to the absence of centralized databases or systems. This results in a lack of confidence and trust in the accuracy and integrity of the revenue collection procedures. Furthermore, limitations in the existing processes were highlighted, including limited payment options for residents. Many interviewees mentioned the absence of electronic payment methods, which hampers convenience for taxpayers and creates unnecessary inconvenience for those who prefer non-cash transactions. They emphasized the need for the organization to adopt modern, digital payment systems to enhance efficiency and customer experience. The interviewees also voiced concerns about the inadequate training and capacity building provided to employees involved in revenue collection. They expressed a need for better training programs to ensure staff members have the necessary skills and knowledge to carry out their duties effectively.

When they were asked to share their thoughts on how the inadequate ICT facilities within the organization impact the efficiency and effectiveness of revenue collection, their responses reveal a consensus on the negative implications of this limitation. The employees unanimously expressed their concerns about how the inadequate ICT facilities hinder the efficiency of revenue collection processes. They pointed out that without proper ICT infrastructure, tasks such as data entry, information retrieval, and report generation become laborious and time-consuming. This leads to delays in processing payments and issuing receipts, ultimately affecting the overall efficiency of the revenue collection system. Moreover, the interviewees highlighted the impact on customer experience, emphasizing that residents and businesses often face long wait times and inconveniences due to the lack of adequate ICT facilities. They mentioned instances where taxpayers had to endure extended queues and manual paperwork, which not only slows down the collection process but also leads to frustration among citizens. The employees also emphasized the need for accurate and up-to-date data management, which is compromised by the absence of sufficient ICT resources. They mentioned that without proper systems in place, the organization struggles to maintain accurate records of revenue collections and faces challenges in reconciling incoming payments. This not only affects transparency but also hampers effective decision-making and financial planning. Furthermore, the interviewees recognized that the lack of adequate ICT facilities limits the organization's ability to adapt to modern payment methods and technologies. They stressed the need for electronic payment systems and online platforms to enhance convenience for taxpayers and integrate seamlessly with the revenue collection processes.

During interviews on specific instances where delays in rate payments have resulted in penalties or legal consequences for ratepayers, the employees indicated a range of scenarios where such consequences have occurred. Employees cited cases where rate payers, who failed to submit their payments within the designated time frame, incurred penalties. These penalties often manifested as late fees or interest charges added to the outstanding amounts. Some employees mentioned that these penalties served as a means to incentivize timely payments and ensure that rate payers fulfill their financial obligations to the local authority. Additionally, the interviewees mentioned instances where prolonged non-payment of rates led to more serious legal consequences for rate payers. These consequences sometimes involved legal action taken by the local authority against delinquent individuals or businesses. Legal measures included issuing summonses or embarking on litigation processes

to recover outstanding dues. The employees emphasized that such penalties and legal consequences were typically imposed as a last resort, used when all other avenues for communication and resolution had been exhausted. They stressed that the local authority aimed to maintain positive relationships with rate payers and sought cooperation in meeting financial obligations. However, some interviewees acknowledged that the consequences of delayed payments could be burdensome for rate payers, particularly those facing financial difficulties. They expressed understanding of the challenges faced by certain individuals, while emphasizing the importance of open communication to address such circumstances and find alternative solutions, such as payment plans or extensions.

In the interviews conducted, the employees were asked to share their perspectives on how the long queues of rate payers impact the overall customer experience and convenience in the organization. They universally acknowledged that the long queues of rate payers have a significant negative impact on the overall customer experience in the City of Masvingo local authority. They emphasized that the waiting times, often characterized by extended periods, create frustrations and inconveniences for residents and businesses alike. The interviewees explained that the long queues contribute to delays in processing rate payments and can result in a slow and sluggish experience for rate payers. This, in turn, leads to increased waiting times and creates a negative perception of the local authority's efficiency and effectiveness. Furthermore, the employees highlighted how the long queues during peak periods can overwhelm the physical capacity of the local authority's payment centers, leading to overcrowding and discomfort for rate payers. They mentioned instances where rate payers had to endure uncomfortable conditions due to limited space and inadequate seating arrangements. The interviewees also emphasized the impact on the convenience factor. Long queues force rate payers to allocate significant amounts of time to complete a simple payment transaction, causing inconvenience and disruption to their daily routines. They mentioned instances where individuals had to take time off work or rearrange their schedules to accommodate the lengthy wait times, leading to frustration and dissatisfaction. Additionally, the employees highlighted that the long queues negatively affect customer service. They noted that the excessive waiting times and crowded conditions make it challenging for staff members to provide personalized attention and assistance to rate payers, leading to a diminished customer experience.

The employees consistently highlighted the negative impact of inefficient processing and recording of rate payments on the local authority's financial management. They mentioned

that inefficiencies in these processes often lead to inaccuracies in financial records and difficulties in reconciling incoming payments. This hampers the organization's ability to effectively track revenues, assess financial stability, and make informed decisions regarding resource allocation. Furthermore, the interviewees emphasized that inefficient processing and recording of rate payments hinder transparency and accountability within the organization. They pointed out that without proper systems in place, it becomes difficult to trace and verify individual transactions, raising concerns about potential revenue leakage or misappropriation. This lack of transparency undermines public trust in the local authority and its ability to manage finances effectively. The employees also mentioned the impact of inefficient processes on customer experience. They highlighted instances where delays in processing rate payments resulted in late fees or penalties being imposed on ratepayers. This can lead to dissatisfaction and frustration among residents and businesses, damaging the overall perception of the local authority's service delivery. Moreover, the interviewees drew attention to the employee workload and stress caused by inefficient processing and recording of rate payments. They mentioned that manual and labor-intensive processes often require significant time and effort from staff members, diverting their attention from other critical tasks. This can lead to a backlog of work, decreased productivity, and increased employee burnout.

In the interviews, the employees consistently highlighted the implementation of electronic payment systems as a crucial technological intervention to enhance revenue collection. They emphasized that offering options such as online payments, mobile payment platforms, and electronic fund transfers would significantly improve convenience for rate payers. These systems would streamline the payment process, reduce the need for physical presence, and facilitate quicker transactions. Additionally, the interviewees suggested the adoption of digital record-keeping and automation tools. Implementing a centralized digital database or system for revenue collection would improve efficiency by eliminating manual paperwork and reducing the chances of errors or data mismanagement. Moreover, automation tools could be employed for tasks like payment reminders and invoice generation, ensuring timely payments and reducing the administrative burden on staff members. The employees also highlighted the potential of customer relationship management (CRM) systems to enhance revenue collection. They mentioned that implementing a CRM system would allow the local authority to effectively track and manage interactions with rate payers, improving communication, and fostering better customer relationships. This, in turn, could lead to increased compliance and

timely payments. Furthermore, some interviewees emphasized the importance of data analytics and reporting tools. They noted that advanced data analytics could help identify patterns, trends, and potential areas of revenue leakage, enabling the local authority to take proactive measures. Implementing reporting tools would facilitate real-time insights into revenue collection performance, allowing for better decision-making and resource allocation.

According to interviews conducted, their responses shed light on how the implementation of specific ICT interventions could address the existing challenges in revenue collection. Firstly, the employees emphasized that the implementation of electronic payment systems would significantly address the challenge of inefficiency in revenue collection. By providing convenient, digital payment options such as online platforms or mobile payment services, ratepayers would experience faster and easier payment processes. This would reduce delays and waiting times, resulting in improved overall efficiency. Moreover, the use of digital record-keeping and automation tools was seen as a way to streamline and enhance the accuracy of revenue collection processes. By eliminating the reliance on manual paperwork and adopting a centralized digital database, the local authority would have improved access to real-time data, leading to more efficient tracking and management of revenue. Automation tools, such as payment reminders and invoice generation, would also reduce human error and administrative burdens, further enhancing efficiency. The interviewees also believed that the implementation of customer relationship management (CRM) systems could address challenges related to communication and relationship building. A CRM system would provide a centralized platform to manage and track interactions with ratepayers, allowing for more personalized and targeted communication. This would enhance customer satisfaction, improve transparency, and foster better relationships, thereby increasing compliance and timely payments. In addition, the use of data analytics and reporting tools was seen as valuable for better decision-making and addressing potential revenue leakage. Through advanced data analytics, the local authority could identify patterns, trends, and potential areas of improvement or risk. Timely reporting tools would provide real-time insights into revenue collection performance, enabling proactive measures to address challenges and optimize collection processes.

Several employees expressed optimism, highlighting that ICT-driven systems could enhance efficiency and accuracy in revenue collection. They believed that this would result in increased revenue generation, thus improving the financial sustainability of the local authority. Additionally, they argued that better revenue collection would provide the

necessary resources to enhance and maintain essential services such as waste management, road maintenance, and infrastructure development. However, a significant number of employees raised concerns about such a transition. They highlighted the potential challenges in implementing and integrating ICT-driven systems into the existing infrastructure. Some expressed worries over the steep learning curves associated with adopting new technologies and the uncertainty of system reliability. They also emphasized the potential negative impacts on job security, as automation could potentially lead to workforce reductions in certain areas of revenue collection. A few employees also raised concerns about the potential exclusion of certain socio-economic groups, such as the elderly or those with limited access to technology. They emphasized the importance of ensuring inclusivity and alternative methods of revenue collection for those who may not be able to adapt or access technology-driven systems.

The employees of the City of Masvingo Local Authority in Zimbabwe provided valuable recommendations for implementing and improving ICT-driven revenue collection systems. These suggestions include the importance of comprehensive training programs for employees and citizens to ensure effective utilization of the new systems. They also emphasized the need for system integration with existing infrastructure to minimize disruption and maximize efficiency. Robust security measures, such as encryption and regular audits, were highlighted as crucial for protecting sensitive data. Transparency and accountability through audit trails, regular reporting, and public access to information were emphasized to build trust in revenue collection processes. Continuous monitoring and evaluation were recommended to identify and address emerging challenges. Inclusivity and accessibility were highlighted, suggesting the need for alternative methods for individuals without access to or proficiency in technology. Collaboration and partnerships with technology providers, financial institutions, and other local authorities were considered valuable for knowledge sharing and resource leverage. By incorporating these recommendations, the City of Masvingo Local Authority can enhance the effectiveness of ICT-driven revenue collection systems and improve financial sustainability while providing essential services to the community.

4.5 Chapter Summary

This chapter extensively analyzed and interpreted the gathered data to provide valuable insights into how the adoption of ICT affects revenue collection. The outcomes presented in this chapter make a significant contribution towards comprehending the connection between ICT and revenue collection. Additionally, they shed light on the current revenue collection mechanisms and systems employed by the City of Masvingo local authority, while also

highlighting possible technological approaches that can improve revenue collection for the authority.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter provides a comprehensive overview of the entire project, summarizing the main research findings. It also emphasizes the conclusions drawn from these findings and offers recommendations for future action.

5.1 Summary of the major findings

The present study was designed to determine the effect of effect of technology on revenue collection for the City of Masvingo local authority. The findings from the questionnaire responses provided by employees in the City of Masvingo highlight a range of perspectives on the current revenue collection processes. Some employees expressed satisfaction with the efficiency and effectiveness of the processes, citing the use of modern ICT and streamlined procedures. They noted prompt payment processing, reduced waiting times, and easy access to up-to-date information. However, a significant number of employees expressed concerns about disorganized and outdated processes, particularly due to heavy reliance on manual systems. These employees identified issues such as delays, errors, long waiting times, and paperwork burdens, which hindered operational efficiency. Transparency and accountability were also areas of concern, with employees desiring greater access to information about fund utilization. Suggestions for improvement included enhancing digitization efforts, improving transparency, conducting awareness campaigns, and introducing flexible payment options. The findings contribute to a deeper understanding of the revenue collection processes and systems in the City of Masvingo local authority. They provide insights into the impact of ICT adoption on these processes, identify areas for improvement, and emphasize the importance of transparency and accountability. These findings can inform policy development, decision-making, and implementation of strategies to enhance revenue collection for the local authority and potentially benefit other similar organizations facing similar challenges.

It was also shown that employee have varying perspectives on the impact of implementing online payment systems on payment processes. Some employees view online payment systems positively, citing improvements in speed and efficiency due to reduced paperwork and physical visits. However, others hold a more neutral stance, acknowledging the convenience while mentioning occasional technical glitches and the need for increased

awareness. Some employees express negative perceptions, citing connectivity issues and system failures, and emphasizing the importance of continuous training and support for users.

Regarding automated billing processes, employees anticipate benefits such as efficiency, accuracy, faster invoice generation, and increased convenience, accessibility, and transparency. However, they also raise concerns about potential challenges like technical glitches, system failures, and the need for training and adjustment during the transition. Regarding digitized record-keeping, employees believe it can greatly improve the accuracy and efficiency of revenue records in the City of Masvingo. They note the risks and limitations of manual processes and highlight the benefits of real-time updates and reduced delays. Employees also mention the potential for improved data analysis and increased data security and confidentiality with digitized record-keeping systems. The research findings provide valuable insights into the impact of digital solutions on payment processes and revenue collection. Employees have diverse perspectives, ranging from positive to neutral and negative, regarding the implementation of online payment systems, automated billing processes, and digitized record-keeping. The findings highlight the potential benefits of increased efficiency, accuracy, data analysis, and data security. However, they also identify challenges related to technological infrastructure and training. Understanding these findings is crucial for designing effective strategies and addressing the concerns raised to ensure successful implementation and utilization of digital solutions.

The research findings indicate that the implementation of online payment systems has had a positive impact on facilitating quick payment processes for the City of Masvingo. A significant majority of employees acknowledged that online payment systems have streamlined revenue collection by eliminating manual handling of cash and reducing paperwork. They note that it has expedited transactions, improved efficiency, and reduced waiting times for payments. Online payment systems have also enhanced revenue collection by providing a secure and transparent payment method. Employees mentioned that the convenience of online payment systems allows residents to make payments at any time, expanding payment options beyond traditional office hours. This round-the-clock accessibility has further improved the efficiency of the revenue collection process. However, a small minority of employees expressed concerns about technical glitches, limited access to reliable internet, and a lack of user-friendly interfaces. Regarding automated billing processes, opinions among employees were mixed. A slight majority believe that these processes have played a significant role in ensuring up-to-date payments. They highlight that

automation has improved efficiency in generating and delivering bills promptly, resulting in quicker and more accurate payment processing. However, a notable proportion expressed reservations about the extent to which automated billing processes have contributed to ensuring up-to-date payments. They argue that certain challenges persist, such as technical errors, limited understanding among residents, and occasional system failures. Digitized record-keeping was perceived positively by the overwhelming majority of employees. They view it as a significant improvement over manual methods, as it enhances accuracy by reducing the risk of errors and data loss. Digitization also improves data accessibility, allows for easier search and retrieval of information, and enhances transparency and accountability in revenue management. However, a small minority of employees expressed reservations regarding potential technical glitches and the learning curve associated with transitioning to digital systems.

The research findings highlight the positive impact of ICT interventions, such as online payment systems, automated billing processes, and digitized record-keeping, on the revenue collection process for the City of Masvingo local authority. These interventions have improved efficiency, convenience, and accuracy in payment processes. They have also enhanced revenue collection by providing secure and transparent payment methods, encouraging timely settlements, and reducing the risks associated with cash handling. Additionally, digitized record-keeping has improved data accessibility, transparency, and accountability in revenue management. However, challenges such as technical glitches and limited internet access need to be addressed for optimal effectiveness. Overall, these findings provide valuable insights for enhancing the revenue collection process through technological interventions.

5.2 Conclusions

The conclusions drawn from the research study are as follows:

- There are concerns about disorganization and outdated systems at the City of Masvingo local authority.
- There are issues such as delays, errors, long waiting times, and paperwork burdens associated with revue collection manual systems.
- Transparency and accountability are matters of concern for employees, as they desired greater access to information about fund utilization.

- The digital solutions in revenue collection improve speed, efficiency, and convenience.

- Online payment systems have a positive impact on payment processes.

- Automated billing processes benefit the revenue collection processes.

- Digitized record-keeping significantly improves the accuracy and efficiency of revenue records.

5.3 Recommendations

The study recommends several key actions for effectively implementing online payment systems in the revenue collection process for the City of Masvingo. Firstly, comprehensive education and training programs should be conducted to ensure that employees and customers understand the benefits and processes of online payment systems. Clear guidelines should be provided to ensure effective use of the system. Secondly, the online payment system should be intuitive and user-friendly. It should be accessible on various devices and cater to individuals with limited technical knowledge. A user-friendly interface will encourage widespread adoption and enhance the overall payment experience. Thirdly, implementing robust security measures is paramount. Encryption, firewalls, and secure payment gateways should be put in place to protect user data and build trust in the system. The City of Masvingo local authority should streamline its internal processes to align with the online payment system. Integration with existing workflows and staff training will ensure a seamless transition and improve revenue collection efficiency. Lastly, effective communication and marketing campaigns are crucial for successful implementation. Promoting awareness and trust in the system through social media, websites, and traditional media outlets will encourage widespread adoption and enhance revenue collection efficiency.

The study also recommends multiple steps to improve automated billing processes and ensure up-to-date payments in the City of Masvingo local authority. The respondents highlighted the importance of enhancing communication and awareness by implementing regular reminders through SMS, email, or postal notifications. Simplifying the billing system with clear and easily understandable bills, itemized charges, and explanations was also emphasized. Incorporating online self-service portals can allow residents to conveniently manage their bills and set up automated payment options. Diversifying payment options, such as online banking, mobile money, bank transfers, and cash payment, was recommended to cater to different preferences and circumstances. Improving data accuracy and integration within the billing processes through robust data management systems can help reduce errors and

streamline payment processing. Strengthening customer support services by establishing a dedicated helpline and prompt email support was also emphasized to address any billing inquiries or concerns residents may have.

Furthermore, the study recommends several key steps for the implementation and enhancement of digitized record-keeping systems for more accurate revenue records in the City of Masvingo local authority. Firstly, investing in modern and reliable software solutions specifically designed for record-keeping is crucial. The employees stressed the importance of efficient and user-friendly software that allows for easy data entry and retrieval. This suggests prioritizing software that is tailored to their specific requirements. Comprehensive training programs for staff members are also essential. Providing thorough training will ensure proficiency in utilizing the digitized record-keeping systems, minimizing errors and maximizing efficiency. Integration with other departments within the organization is emphasized. Seamless data sharing between departments will streamline processes and contribute to more accurate revenue records, highlighting the need for a cohesive and integrated approach. Regular updates and maintenance are important. Resources should be allocated to keeping the digitized record-keeping systems up-to-date, ensuring optimal performance and security. This includes continuous monitoring, troubleshooting, and implementing software updates and patches as necessary. Strong consensus exists on the need for backup and recovery systems. Employees stressed the importance of reliable mechanisms to store and protect data, mitigating the risk of data loss or system failures. Implementing robust backup procedures will safeguard data integrity.

5.4 Recommendations for further research

It is recommended that further research be undertaken to compare the revenue collection systems and practices of other local authorities within Zimbabwe or in similar contexts. This would allow for a better understanding of the factors that can contribute to successful ICT implementation for revenue collection. Also, further investigations are needed to determine the necessary skills, training, and capacity building needed for efficient ICT utilization in revenue collection. More broadly, research is also needed to explore the role of stakeholders, such as citizens, businesses, and other government agencies, in enhancing revenue collection through ICT. There is need to investigate how their engagement and collaboration can be improved to ensure the smooth operation and adoption of ICT systems.

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Appendix A - Questionnaire for the City of Masvingo employees in the Chamber Secretary, Finance and ICT Departments

My name is Tinashe Chamwaita. I am studying a Master of Commerce Degree in Professional Accounting and Corporate Governance at Great Zimbabwe University. I am doing a research project titled: Information and Communication Technology and Revenue Collection: A case of City of Masvingo. You are kindly requested that you fill this questionnaire with required information. The information you provide us will be treated with utmost confidentiality since the research is purely for academic purpose. Do not write your name anywhere in this questionnaire.

Section A: Demographic information

1. Gender:

Male ☐   Female ☐

2. Age:

25 and below ☐   26-35 ☐   36-45 ☐

46-55 ☐   56-65 ☐   Above 65 ☐

3. Highest level of qualification:

Ordinary level ☐   Advanced level ☐   Certificate ☐

Diploma ☐   Degree ☐   Master's Degree ☐

Doctorate ☐

4. For how long have you been working at the City of Masvingo local Authority?

0-5 years ☐   6-10 years ☐   11-15 years ☐

16-20 years ☐   More than 20 years ☐

For each statement below, you can provide the following rating options:

5 - Strongly Agree

4 - Agree

3 - Neutral

2 - Disagree

1 - Strongly Disagree

Section B: The existing revenue collection processes and systems in the City of Masvingo.

5. How would you describe the current revenue collection processes in the City of Masvingo?

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6. How effective do you perceive the existing revenue collection processes and systems to be in the City of Masvingo?

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7. In your opinion, what are the strengths and weaknesses of the current revenue collection processes and systems in the City of Masvingo?

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8. What improvements or changes would you suggest for the revenue collection processes and systems in the City of Masvingo?

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Section C: Potential ICT interventions that can enhance revenue collection for the City of Masvingo.

9. How do you perceive the impact of implementing online payment systems on the speed and efficiency of payment processes in the City of Masvingo?

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10. What potential benefits do you anticipate from the adoption of automated billing processes in terms of ensuring up-to-date payments?

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11. In your opinion, how can digitized record-keeping contribute to improving the accuracy of revenue records in the City of Masvingo?

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12. How do you think online payment systems, automated billing processes, and digitized record-keeping collectively influence the overall speed and efficiency of revenue collection in the City of Masvingo?

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13. In what ways do you believe the implementation of these ICT interventions can contribute to ensuring accurate and up-to-date revenue records in the City of Masvingo?

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Section D: The impact of the ICT interventions on revenue collection for the City of Masvingo local authority.

14. How would you assess the impact of implementing online payment systems on the City of Masvingo's revenue collection process, particularly in terms of facilitating quick payment processes?

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15. In your opinion, to what extent have automated billing processes contributed to ensuring up-to-date payments for the City of Masvingo local authority?

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16. How do you perceive the influence of digitized record-keeping on the accuracy of revenue records for the City of Masvingo?

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17. In what specific ways have these ICT interventions improved or streamlined the revenue collection process, leading to quicker payment processes, more up-to-date payments, and more accurate records for the City of Masvingo local authority?

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18. Have there been any challenges or drawbacks associated with the implementation of online payment systems, automated billing processes, or digitized record-keeping, and how have these affected the desired outcomes of quick payment processes, up-to-date payments, and accurate records?

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Section E: Recommendations for implementing and improving ICT-driven revenue collection systems in the City of Masvingo local authority

19. Based on your expertise, what specific recommendations would you suggest for effectively implementing online payment systems in the revenue collection process of the City of Masvingo local authority, with the goal of achieving quick payment processes?

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20. In your opinion, what steps should be taken to improve the automated billing processes in the City of Masvingo local authority in order to ensure up-to-date payments?

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21. How would you propose implementing and enhancing digitized record-keeping systems to achieve more accurate revenue records for the City of Masvingo local authority?

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22. From your perspective, what key strategies or practices would you recommend for successfully implementing and improving technology-driven revenue collection systems, incorporating online payment systems, automated billing processes, and digitized record-keeping, while also achieving quick payment processes, up-to-date payments, and accurate records?

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23. In your view, what are the potential long-term benefits for the City of Masvingo local authority in adopting and continuously improving technology-driven revenue collection systems, incorporating online payment systems, automated billing processes, and digitized record-keeping, with a focus on achieving quick payment processes, up-to-date payments, and accurate records?

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Thank you for participating in this questionnaire.

Appendix B – Interview Guide for the City of Masvingo employees in the Chamber Secretary, Finance and ICT Departments

1. Can you describe the current revenue collection processes and systems utilized by the City of Masvingo local authority?

2. In your experience, what challenges or limitations have you observed with the existing revenue collection processes in the City of Masvingo?

3. How do you think the inadequate ICT facilities within the local authority impact the efficiency and effectiveness of revenue collection?

4. Can you share any specific instances where delays in rate payments have resulted in penalties or legal consequences for rate payers?

5. How do the long queues of rate payers impact the overall customer experience and convenience in the City of Masvingo local authority?

6. What specific negative consequences have you observed as a result of inefficient processing and recording of rate payments?

7. From your perspective, what potential ICT interventions do you believe have the most potential to enhance revenue collection for the City of Masvingo local authority?

8. How do you think the implementation of these ICT interventions could address the existing challenges in revenue collection?

9. What impact do you think introducing ICT-driven revenue collection systems would have on the financial sustainability and ability of the local authority to provide essential services?

10. Based on your expertise, what recommendations would you provide to the City of Masvingo local authority for implementing and improving ICTy-driven revenue collection systems?