

ASSESSING FINANCIAL MANAGEMENT SKILLS AMONG SPAZA SHOP OWNERS IN
MAMELODI TOWNSHIP, SOUTH AFRICA.

by

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Business Management

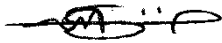
at the

UNIVERSITY OF SOUTH AFRICA

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DECLARATION

I Theresa Phiri, student number (57022135) declare that *Assessing Financial Management Skills: A Study of SMMEs (Spaza shops) Owners in Mamelodi Township, South Africa* is my own work and that all the sources that I have used or quoted have been indicated and acknowledged using complete references. I further declare that I submitted the thesis/dissertation to originality-checking software and that it falls within the accepted requirements for originality. I further declare that I have not previously submitted this work, or part of it, for examination at Unisa for another qualification or at any other higher education institution.



.....
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19/12/2024

.....
Date

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DEDICATION

This work is dedicated with deep respect and affection to the memory of my late mother, Pastor L Phiri, whose unwavering strength, faith, and love remain a constant source of inspiration in my life.

ABSTRACT

The study assessed informal spaza shop business owners' finance management skills. The assessment may lead to more fluid practical interventions that may help informal businesses to improve their operations, grow and ultimately formalise their businesses. The composite measures for the study were expense tracking skills, cash flow management skills, calculating profit skills and finance skills needs. A new questionnaire was developed because no available instrument perfectly addressed the problem. The choice of methodology in the informal sector is limited, characterised by a lack of resources and databases from which to choose. Therefore, non-probability convenience sampling was employed for the study. The study outcome revealed that spaza shop business owners know the importance of finance management skills. However, there was low confidence and knowledge in accurately executing these tasks, indicating a gap between recognising the value of the skills and applying them in practice.

Key Words: finance management; SMMEs; informal sector; expense tracking; cash flow management; profit calculation; finance management needs

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LIST OF ABBREVIATIONS AND ACRONYMS

CFMS	–	Cash Flow Management Skills
COVID 19	-	Corona Virus 2019
DSBD	–	Department of Small Business Development
ETS	–	Expense Tracking Skills
FS	–	Financial Skills
GDP	–	Gross Domestic Product
GGDA	–	Gauteng Growth and Development Agency
KMO	–	Kaiser-Meyer-Olkin
NDP	–	National Development Plan
NPC	–	National Planning Commission
PAF	–	Principal Axis Factoring
PCA	–	Principal Component Analysis
PCS	–	Profit Calculation Skills
POPIA	–	Protection of Personal Information Act
SEFA	–	Small Enterprise Finance Agency
SMMEs	–	Small Medium and Micro Enterprises
SPSS	–	Statistical Package for Social Science
UNISA	–	University of South Africa
TEA	–	Township Entrepreneurs Alliance

CHAPTER 1: INTRODUCTION

1.1 INTRODUCTION AND BACKGROUND OF THE STUDY

Bell, Bryman and Harley (2022) assert that a study's background outlines the topic's depth. Using informal spaza shops as the focus, the study aimed to assess small business owners' finance management skills in Mamelodi Township, under the jurisdiction of the City of Tshwane Metropolitan Municipality. The variables used for the study are expense tracking, cash flow management, profit calculation, and assessing the finance skills needs. Finance management skills are defined as applying relevant knowledge and understanding to solve unpredictable situations and resolve financial challenges (Dewi, Febrian, Effendi & Anwar, 2020). Characteristics that define the informal economy are a lack of resources and databases, as well as limitations in the methodology choices, making it less inspiring by restricting researchers (Mabasa, 2023). A spaza shop is a small informal convenient shop that is often run from a house (Kgaphola & Tawodzera, 2019). The emergency of entrepreneurship in the trade and commerce sector stimulated by unemployment and poverty resulted in the birth of spaza shops in South Africa. However, their “seesaw” journey, largely declining, impacts their ability to grow and be profitable. Spaza shops are mainly found in the informal sector. Nevertheless, the South African Government through the Department of Small Business Development (DSBD) made initiatives to encourage and assist them with business registration. This has enabled spaza shops to access growth opportunities (Skinner & Watson, 2020). The high failure rate of businesses in South Africa (Abisuga-Oyekunle, 2020) highlights an urgent need to identify the root causes, implement effective interventions, and develop sustainable strategies to grow profitable businesses. Statistics South Africa (StatsSA) (2022) documents that the overall number of businesses that liquidated increased in the 2020 reporting period compared to the same reporting period in 2019. This has resulted in a 14,2% year-on-year increase in business failure. The study's outcome may help to understand the strengths and weaknesses of informal entrepreneurs in managing finances that may facilitate their

transition to the formal economy. The study may shed light on business owners' finance management skills. This may contribute to the formalisation process by enabling them to meet the requirements of formal financial institutions, comply with regulatory standards and access formal markets. In addition, understanding informal entrepreneurs' finance management skills is the first step towards building their capacity. The study may inform capacity-building initiatives such as development programs, workshops and mentorship schemes tailored to the specific needs of informal entrepreneurs. These initiatives can result in empowerment, informed decision-making, effective resource management and navigating the financial challenges. Moreover, by assessing the finance management skills, the researcher may provide insights into the relationship between these skills and business outcomes such as profitability and growth.

1.2 RATIONAL OF THE STUDY

The concept of entrepreneurship is a buzzword in emerging economies' economic growth (Foo, Balagopal & Brian, 2020). However, the ongoing literature is on formal entrepreneurship. The literature review for entrepreneurship found that while many studies concentrated on sustainable finance management in formal business, there has been a dearth of studies on assessing informal business finance management skills. Despite the informal sector business existing for 10–20 years (Thwala, Masiya & Lubunga, 2023), the research gap between the formal and the informal economies is odd. Mabasa (2023) recommends that an industry properly grows when knowledge is holistically developed. Therefore, the informal sector should not be an exception.

Bambang, Yana, Yatimin, Kusumawati and Musharianto (2023); Omri (2020) and Van Stel and Storey (2021) outlined reasons for not ignoring informal entrepreneurship in research. The reasons are as follow:

- The informal sector is a potential source of economic growth as it employs more than 50% of the workforce on average.
- The worldwide average economy indicates that informal commercial activities account for more than 30%.
- Informal entrepreneurship exists in all economies.

Musara and Nieuwenhuizen (2020) further provide an in-depth review to motivate the study of informal sector entrepreneurship. Despite having several cases of entrepreneurs from South Africa, who emerged from the informal sector entrepreneurship, there is still a gap in the study. The “rags to riches” inspirational example of these entrepreneurs is the case of Herman Mashaba who emerged from the informal sector selling cosmetics on the streets from the back of a car (Mashaba & Morris, 2017). A case of Palm Golding real estate that operated in the informal sector during its start-up phase (Lioness of Africa, 2014). Lastly, the case of Richard Maponya, the founding father of black retail business, started his business from informal entrepreneurship (Ssekitoleko & du Plessis, 2021).

A formal entrepreneur is one whose business is registered with the government authorities, pays tax and complies with the government reporting requirements (Bambang et al., 2023). All the other forms that do not satisfy these requirements are classified as informal. The formal business shows higher levels of growth instigated by an entrepreneurial mind set (Tripopsakul, Suchart, Tartat & Wilert 2022). Their operations are from fixed building structures located on business stands demarcated as such by the local government and they meet the most relevant legal requirements (Bambang et al., 2023). Informal entrepreneurs exist outside of the regulatory framework, and their economic activities are often categorised as problematic, uncontrolled and unplanned. However, the informal sector is celebrated for its entrepreneurialism as it is referred to as the birthplace of entrepreneurs (Matakanure, 2021). In a critical study to determine the motive for survivalist entrepreneurs, Asoba and Mefi (2021) argue that the motivation for informal entrepreneurship is not growth but survival. Therefore, it cannot be regarded as and

will never become the springboard of success and productive business development and growth. In contrast, StatsSA (2022) reports that informal spaza shops are the largest group that makes up 27% of the retail outlets in Mamelodi Township. They are, therefore, regarded as “shock absorbers during economic crises”, due to their ability to create jobs and business opportunities for people with no work in the formal sector. Another study by Makina and Fanta (2015) indicates that informal businesses have distribution relations with formal businesses through direct transactions or sub-contracting arrangements. In other sub-Saharan countries such as Zimbabwe and the Democratic Republic of Congo (DRC), the informal sector contributes over 90% of the total employment (Nartey & Nieuwenhuizen, 2020). Yet little attention is given to how informal sector entrepreneurship shapes individual entrepreneurial orientation and economic growth.

The choice made by the entrepreneur between formality and informality is not fixed such that the enterprise can switch (Laing et al., 2021). Moreover, the economic continuum of formal and informal are often dynamically linked. Therefore, the researcher views informal entrepreneurship as a low-cost option to test the viability of the business by starting informally as a pilot for entrepreneurship.

In light of this motivation, the study responds to the under-studied context of informal entrepreneurship. Akoto, Aremu and Olayemi (2022) note that imperfections in managing finances contribute to business failure. Therefore, the study aimed to assess the finance management skills of small business owners. The study based its delimiting criteria on a study by Auwali (2020), where informal enterprises maintain registration with either the local authority or relevant market associations. Upon the background, the study contributes to the existing entrepreneurial literature by focusing on the gap to assess the finance management skills of informal small businesses in South Africa. This may help them transition from the informal sector to operating formally. Data were collected from spaza shop owners in Mamelodi Township, registered with the City of Tshwane and operated for one year and above.

1.3 PROBLEM STATEMENT

The background and motivation of the study have been provided in the previous section. The focus of the current section is to identify and explain the problem statement of the study. Bell et al. (2022) define a problem statement as one that details a condition that needs to be addressed through research.

A lack of financial management skills can hinder entrepreneurs from transitioning to formalise their businesses and seize growth opportunities (Auwalu, 2020). The National Planning Commission (NPC) (2011), Vision 2030 for South Africa, indicates that the years between now and 2030 are critical for profitable entrepreneurship. Unfortunately, the ineffective management of finances by small businesses contributes to over 70% of business failure within the first 5-7 years of inception (Bushe, 2019). If South Africa misses the opportunity to grow profitable businesses, population growth could lead to rising poverty, an increase in unemployment, crime, and eventually economic stagnation (Khalid, Akalpler, Khan, Shar & Khan, 2021). Township small businesses are in dire crisis, the real challenge is in part their culture of poor financial management skills (Malgas & Zondi, 2021). Businesses with poor financial management skills are more vulnerable to financial shocks and economic downturns. This is because they do not have contingency plans that are essential to withstand unexpected expenses. Moreover, they are not eligible for government funding (Laing et al., 2021). A lack of financial management skills leads to decisions that are based on incomplete or inaccurate information (Akoto et al., 2022). Therefore, having the skill to manage financial resources is one of the most critical aspects that influence entrepreneurial performance and sustainability.

1.4 PURPOSE, OBJECTIVES AND HYPOTHESES OF THE STUDY

The current section provides clarity to the study by detailing the purpose, objectives, and hypothesis of the study. These will ensure that the study is focused on addressing core questions and adds meaningful insights into the field.

1.4.1 Purpose

The purpose of this study was to assess the financial management skills of spaza shop owners in Mamelodi Township, South Africa. Specifically, the study aimed to evaluate how effectively these entrepreneurs practice key financial skills such as expense tracking, cash flow management, profit calculation, and identifying financial skills needs. By understanding the current level of financial skills among spaza shop owners, the study sought to highlight existing gaps and challenges that may affect business sustainability and growth. The findings are intended to inform the development of targeted support interventions that may enhance their financial capability, long-term viability and ultimately help them to formalise their informal businesses.

1.4.2 Objectives

The problem statement and the purpose have been formulated in the previous sections. To operationalise the problem of the study, the objectives must be formulated. Therefore, the focus of the current section is to detail the objectives. Research objectives are the results of the study after its implementation (Saunders, Lewis & Thornhill, 2019). Finance management can be complex owing to differing financial literacy levels (Tuffour, Amoako & Amartey, 2022). Poor financial literacy can lead to sub-optimal decisions, mismanagement, or financial loss. Sub-optimal decisions result from incomplete information, cognitive biases, and lack of financial expertise. Addressing finance management challenges requires a multifaceted approach that includes assessing the skills and implementing fluid interventions that give solutions to the aching finance management needs of small business owners (Wutun, Niha & Manafe, 2023). Therefore, the objectives of the study are outlined as follows:

1.4.2.1 Primary Objective

- To assess small business owners' finance management skills.

1.4.2.2 Secondary Objectives

- To assess small business owners' Expense Tracking Skills (ETS).
- To assess small business owners' Cash Flow Management Skills (CFMS).
- To assess small business owners' Profit Calculation Skills (PCS).
- To assess small business owners' Finance Skills (FS) needs.

1.4.3 Hypotheses

In this section, the hypotheses of the study are outlined and briefly discussed. A hypothesis is a statement based on known facts that have not yet been scientifically proven (Saunders et al., 2019). The focus of the current section is to explain the proposed assumptions that had to be tested to see if they were confirmed or rejected. The developed hypotheses form the basis for the research methodology and guide the quantitative analysis. Based on the theoretical overview, the developed hypotheses were tested. To assess finance management skills, questions were asked to determine the perceived awareness, confidence, usefulness, and importance of expense tracking, cash flow management, profit calculation skills, and compiling and analysing financial statements. The stated hypotheses that were tested in the study are as follows:

H1₀: Small business owners lack the skills to track business expenses.

H1₁: Small business owners have the skills to track business expenses.

H2₀: Small business owners lack the skills to manage business cash flow.

H2₁: Small business owners have the skills to manage business cash flow.

H3₀: Small business owners lack the skills to calculate business profit.

H3₁: Small business owners have the skills to calculate business profit.

H4₀: Small business owners lack the skill to compile and analyse financial statements.

H4₁: Small business owners have the skill to compile and analyse financial statements.

A thorough detailed discussion of the hypotheses is provided in Chapter 3. In the section, the significance of the study is explained.

1.5 A LITERATURE STUDY

To gain a theoretical foundation and conceptual framework, a literature study was carried out using textbooks, journal articles, reports, and previous related studies. A detailed discussion of the literature is presented in Chapter 2.

1.6 RESEARCH METHODOLOGY

A detailed discussion of the research methodology is presented in Chapter 4 and is only briefly highlighted in this section.

1.6.1 *Research Design*

A research design is a structured framework or blueprint that outlines the methods and procedures for conducting research (Bell et al., 2022). It specifies how the study participants are selected, and how the variables are manipulated. It further details how data are collected and analysed to address the research problem (Saunders et al., 2019).

1.6.2 Assumption of the Study

The validity of the study depends on the assumption that the individuals selected may have shared characteristics that differ from the broader population, which would render the results of this study difficult to generalise.

1.6.3 Population of the Study

Population is the full set of cases from which a sample is drawn (Taherdoost, 2021). The population for the study consisted of spaza shop owners because they understand the variables under study and are familiar with the use or lack thereof of finance management practices.

1.6.4 Sample Size and Sampling

In informal economy research, it is difficult to develop a sample framework that guarantees statistically representative data (Petersen, Thorogood, Charman & Du Toit, 2019). This is because researchers are restricted to over-rely on non-probability sampling. The population of spaza shops in Mamelodi Township, according to the City of Tshwane database, is 103. The list shows that the data are not frequently updated as it was last updated in 2016. Therefore, it was not credible. Therefore, non-probability convenience sampling was used.

1.6.5 Data Collection Instrument

A new questionnaire was used to collect data from the participants. Content validity was ensured by the researcher's supervisor, an expert in business management. A pilot study was conducted as recommended by (Bell et al., 2022). This was done to evaluate the feasibility, time, cost, risk, and adverse events involved in a full-scale research project. The spaza shops for the pilot test were selected in such a manner

as to be representative of the actual businesses to be surveyed. The questionnaire consisted of the following sections:

Section A: Personal Profile

Section B: Business Profile

Section C: Expense Tracking Skills Assessment

Section D: Cash Flow Management Skills Assessment

Section E: Profit Calculation Skills Assessment

Section F: Financial Skills Needs Assessment.

1.6.6 Data Collection Exercise

Quantitative primary data was collected from spaza shop owners in Mamelodi Township using self-administered survey questionnaires. Data gathered from the survey was analysed thereafter.

1.6.6.1 Reliability and Validity

The reliability and validity of the data collected were considered as recommended by (Ansari & Khan, 2023). Reliability is the degree to which a measure is free from random error, by so doing giving consistent results (Saunders et al., 2019). It is recommended that the instrument be administered consistently to ensure standardisation for each respondent. Validity is the extent to which an instrument measures what it is supposed to measure (Bell et al., 2022). To ensure that validity was considered for the study, pre-test and pilot test were conducted.

1.6.6.2 Analysis of Data

To prove the null and the research hypotheses for the finance management skills, statistical methods were used. Statistical data analysis is the use of statistical methods to quantify relationships, test hypotheses, or make predictions (Bell et al.,

2022). The statistical methods used in this study are the analysis of variance and the t-test. In addition, descriptive statistics and frequency distributions were used.

1.6.6.3 Ethical Implications of the Study

It is a requirement for students to present when they are ready for the colloquium. The other ethical implication was to request permission from the City of Tshwane. The researcher also applied for ethical clearance from the Faculty of Economic and Management Sciences ethics clearance committee at Unisa. The process is further explained in Chapter 3.

1.7 THE SIGNIFICANCE OF THE STUDY

The focus of the current section is to explain the significance of the study. Using informal spaza shops as the focus, the study aimed to assess small business owners' financial management skills in Mamelodi Township, Tshwane Metropolitan. The financial management components assessed are expense tracking skills, cash flow management, profit calculation, and assessing financial needs. The researcher stands on firm ground from previous literature that these components provide a practical and impactful way to assess the financial management skills of small business owners (Dalla, Di Maio, Landoni & Rusinà 2021; Süer, 2020).

Expense-tracking skills enable business owners to understand where money is going. Therefore, it is the foundation of financial management. Untracked business expenses may quickly erode profits as small businesses often operate on small margins (Bakhodirovich, 2023). Assessing the expense tracking skills may help to determine if business owners have the discipline to stay on budget, and compile and analyse expenses accurately. This is essential for identifying cost-cutting opportunities, and to ensure that business finances are used wisely. Cash flow is the lifeline of a business because a consistent flow ensures that these obligations are met and provides liquidity to reinvest (Dalla et al., 2021). Cash management is

the ability to forecast cash needs, manage receivables and payables, and set aside reserves for unexpected costs (Athi, Sudarmiatin & Hermawan, 2023). This is crucial for small businesses that may not have access to credit for emergency funds. Moreover, small businesses face irregular income (Mansur & Djaelani, 2023). To determine if the business may be sustainable in the long term, calculating profit accurately is essential. A lack of profit calculation skills makes distinguishing between revenue and actual profit difficult. This may lead to overestimating the financial health of the business (Singla & Mallik, 2021).

Understanding the skills in managing finances may help identify strengths and weaknesses that are essential for business stability and survival (Caliendo, Goethner & Weißenberger, 2020). Informal businesses in South Africa are critical to local economies, as they serve as primary income sources in under-served township communities. Therefore, when business owners are financially equipped to succeed, they contribute to job creation, economic stability, and community wealth, which collectively drive local and national economic development. Assessing finance management skills has unique significance for both business growth and economic development (Ratnawati, 2020). Small business owner-managers need to understand the financial aspect of business operations to make sound financial decisions (Hossain, 2020).

In summary, assessing finance management skills is a proactive approach that may deliver the much-needed entrepreneurial solution. This may reduce business failure and find answers to questions such as why only one in ten newly established small businesses survive for longer than ten years in the South African business environment (Govuzela & Mafini, 2019). The failure of small businesses suggests that some South Africans may never experience employment during their lifetime, and this would be a huge waste of potential human resources and talent (Bushe, 2019). Therefore, the study will generate new knowledge that is essential for South Africa in the management of the finances of small businesses for growth and development.

1.8 DELIMITATIONS OF THE STUDY

Delimitations address how the study will be narrowed in scope and boundaries (Bell et al., 2022). Therefore, the study was limited to SMMEs in the informal sector, particularly spaza shops in Mamelodi Township in Tshwane Municipality. In addition, the study was limited to spaza shops registered with the City of Tshwane. Therefore, those not registered did not form part of the study. Lastly, the participants must have operated for more than one year.

1.9 LIMITATIONS OF THE STUDY

The research was limited to SMMEs, and the qualifying inclusion criterion was spaza shops in Mamelodi Township. This restriction meant that the individuals selected may have shared characteristics that differ from the broader population intended for the study, limiting the generalisability of the findings. The study was limited to the business owners' knowledge and practices of expense tracking skills, cash flow management, profit calculation, and finance management needs. This narrow focus may not have captured the full range of competencies contributing to effective financial management. According to Cowling, Brown and Rocha (2020), personal and business finances are closely intertwined. Therefore, excluding personal finance management from the study could have overlooked the critical insights into how personal financial habits impact business decisions and cash flow. Focusing only on the skills might lead to recommendations that overlook other important skills. This could result in less effective interventions for improving overall financial management skills. The respondents might have overestimated or underestimated their financial management skills owing to a lack of self-awareness or to appear more competent. Furthermore, the response rate was low as some of the owner-managers were not interested in participating or were too busy with their day-to-day business operations.

1.10 EXPOSITION OF CHAPTERS

The research study is set out in six chapters as follows:

Chapter One introduces the whole study while underlying its relevance in the dynamic township business environment. The chapter gives an overview of the theoretical background of the study building on the finance management skills of small businesses to explain the depth of the problem at hand. The problem statement is addressed, and questions are posed on why small businesses fail within the first few years of inception, the outlining of research objectives and the research hypotheses are developed.

Chapter Two provides the literature review, presenting prior research exploring the finance management components of expense tracking skills, cash flow management, profit calculation skills, and the finance management needs assessment. The unique characteristics of spaza shops relevant to finance management and the role of SMMEs in tackling unemployment are also explained.

Chapter Three explains the research methodology. Research methodology details the steps that the study follows to practically test for either support or not of the formulated hypotheses. Saunders' research onion depicts the design and methodology. The research design starts by defining the target population, the sampling method, and sampling size, developing the data collection instrument, data collection exercise, data analyses, and reporting.

Chapter Four explains the processes followed to comply with the university policies on the reliability and validity of the data collection instrument. These include permission requests from authorities outside the university, the ethical clearance application process, the data collection instrument construction process and the reliability and validity assessment.

Chapter Five presents and interprets gathered data on the financial management skills of small business owners. It applies statistical tools and techniques to summarise data, identify trends, and draw conclusions on research objectives. The results are presented using tables and narrative explanations to provide findings.

Chapter Six concludes the study by comparing the research results with the objectives and hypotheses set out at the beginning of the study. Recommendations that can improve the management of finances in small businesses and possible areas for future research are identified. The chapter also summarises all facts, arguments, and conclusions outlined.

1.11 SUMMARY

The chapter introduced the study and outlined the background. The problem statement, objectives, hypothesis, research design, and the exposition of the chapters were also highlighted. Financial management skills are critical in running a sustainable business. However, previous studies indicated that informal small businesses are neglected. Therefore, this study assessed the financial management skills of informal businesses. This was done to investigate which skills they have and which ones they lack to enable fluid interventions that might help them formalise their businesses, grow and be profitable. The components of finance management skills relevant to small businesses were identified. The chapter also proposed to develop a new questionnaire because no available instrument perfectly addressed the problem. Reliability and validity tests were also conducted to ensure the accuracy, consistency, and overall credibility of findings.

CHAPTER 2: LITERATURE REVIEW

2.1 INTRODUCTION

This section thoroughly analyses, synthesises, and critically evaluates previous literature. Literature review, as explained by Saunders et al. (2019) gives a clear picture of the problem under investigation by identifying what has been written on the topic, determining trends and patterns, and identifying questions that require more investigation. The study assessed the small business owners' finance management skills in Mamelodi Township, Tshwane Metropolitan. The focus was on spaza shops, and the components assessed were expense tracking, cash flow management, profit calculation, and finance skills needs. The literature review begins by detailing the background of SMMEs in townships, followed by an evaluation of their economic importance in tackling unemployment and the characteristics of spaza shops that make them unique SMMEs. Lastly, the study critically analysed the importance of assessing the finance management skills of small business owners.

2.2 BACKGROUND OF SMMEs IN TOWNSHIPS

South African townships are home to small businesses that hold the national economy with invaluable value chains (Beresford, 2020). Despite contributing to the nation's gross domestic product (GDP), they are often an untapped and overlooked market segment (Kgaphola & Tawodzera, 2019). They have a supporting role in serving the growing segment of low-income consumers (Demmler, 2020). SMMEs play a significant role in economic activities such as employment creation that big businesses in the formal sector fail to satisfy (Enaifoghe & Vezi-Magigaba, 2023). An SMME is not a scaled-down version of large firms, but that does not mean that all the knowledge produced for large businesses is inappropriate for small businesses (Audretsch, Belitski & Caiazza, 2021; Pramono, 2021). Previous studies indicate that part of the knowledge produced in large businesses is the starting point

of small business research because there is a research gap in small businesses (Doern, Williams & Vorley, 2018; Pöschl & Freiling, 2020). Like large businesses, small businesses must perform all management-related activities such as planning, organising, leading, and controlling. The only difference is that small businesses have fewer resources. Therefore, it is crucial to get it right the first time (Akpan, Soopramanien & Kwak, 2021). It is of note that in small businesses, the owner is the only one involved in decision-making. As a result, they are more agile and responsive to immediate business needs. Baer and Schnall (2021) flagged the decision-making practice by one person as causing decision fatigue as it is tiresome. Decision fatigue is, therefore, defined as difficulty in making a good decision owing to multiple decisions one needs to make (Pramono, 2021). In that regard, the literature recommends that making better decisions requires clarity about the problem that needs a solution (Pramono, 2021). Small business owners identify with their businesses and operate as an extension of the individual's personality to further personal goals and generate income (Nyoni & Moos, 2022). The business' identity makes it unique and relevant to its stakeholders compared to the competition. Small businesses tend to focus on serving local communities, which can enhance their relevance and customer loyalty within that area. Brand identity creates differentiation and stems from the business founder while reflecting their values (Grobler, Magau & Van Wyk, 2019).

Most small business owners learn how to run their business on the job. On-the-job learning is defined as the practical approach to acquiring new skills to improve performance through doing the job (Lo & Sugiarto, 2021). The experience and challenges from learning while running the business make the business owner skilled and confident. To be sustainable in the competitive business environment, businesses must give full attention to learning because it implies learning what works in practice. Factors that determine learning are experimentation, capability, risk-taking, participative decision-making, and interaction with the external environment (Nyoni & Moos, 2022). The values and culture of small businesses are of the owner and can be revealed in the products or services offered (Austin, 2020). The impact

of culture and values occurs when the business owner implements business strategies and operational assumptions (Grobler et al., 2019). Core values and culture play a large part that form a business` reputation and helping the business build relationships and make work purposeful. In small businesses, it is easy to instil a positive culture because of the few employees, which makes communication easier. Therefore, a unique and vibrant culture and core values are the differentiators that can give small businesses a competitive advantage (Austin, 2020). A study by Lorato, Tadesse, Abebe and Getinet (2023) states reasons for starting a small business, including supplementing income, no alternative work available, and convenience to practice. The experience and skills gained in the informal sector serve as a good “training ground” for entrepreneurs to enter the competitive formal sector (Welman, 2021). However, it is challenging to start a business in the township because of factors such as location, finance, security, and the stigma that you would receive sub-standard service as opposed to businesses in more developed or affluent areas (Kgaphola & Tawodzera, 2019). While it is critical to understand the background of small businesses, it is also important to know the range of characteristics that make spaza shops unique.

2.2.1 Unique Characteristics of Micro Enterprises that Relate to Spaza Shops

This section explains the unique characteristics of spaza shops that enable them to serve their niche markets and operate with flexibility. Literature and empirical findings confirm that spaza shops are a cornerstone of township economies in South Africa (Scholt, Cronje & Cilliers, 2023). Spaza shop is a South African slang term for informal small grocery shop or corner store. In other countries, they are known as tuck shops. Spaza shops have distinctive characteristics that set them apart from other types of small businesses. They are often informal, community-focused, and highly adaptable to their specific environments (Enaifoghe & Vezi-Magigaba, 2023). Spaza shop owners operate informally owing to a lack of knowledge about formal business registration processes, limited resources, permit requirements, and

business regulations (Du et al., 2022; Kativhu, 2022; Mishra, A., 2022). The limited understanding of regulatory compliance often makes it easier and more feasible for them to run an informal business. Furthermore, a range of bylaws, regulations, and procedures are out of touch with the realities of the township making informal businesses a special case for study (Scheba & Turok, 2019). In South Africa, spaza shop structures depend on what the owner can afford, and mostly, they are run from the front of the house or in makeshift containers (Kgaphola & Tawodzera, 2019). They cater primarily to the immediate neighbourhood, making them a convenient, go-to option for the residents. Spaza shops are highly responsive to local needs and often provide goods and services tailored to the unique demands of their communities (Enaifoghe & Vezi-Magigaba, 2023). The owners know their customers personally, making it possible to customise goods and services based on specific needs or preferences. This close relationship fosters loyalty and trust (Gilboa, Seger-Guttmann & Mimran, 2019).

In addition, spaza shops focus on fast-moving goods that meet the customers' daily needs such as bread, milk, and household goods. According to Maisela (2024) the purchasing patterns of spaza shop customers are irregular, in small quantities, and prioritise affordability. The high adaptability to market demands makes spaza shop business owners frequently adjust their stock and prices in response to community needs and local purchasing patterns (Maisela, 2024; Mishra, 2022). This allows them to remain relevant and competitive.

The role and value of informal businesses have two schools of thought (Dell'Anno, 2021). The first argues for its importance in providing an alternative to limited opportunities. The other school of thought disagrees as it views the informal sector as obstructing economic growth as it attracts scarce resources from the larger complements (Mishra, 2022). However, in the justification in Chapter 1, the study views informal entrepreneurship as a low-cost option to test the viability of the business by starting informally as a pilot for entrepreneurship. Operating informally allows spaza shops to keep overhead costs low, as they are usually exempt from

taxes, permits, and rental costs (Mishra, 2022). This enables them to offer competitive prices on essential goods, which is crucial in the low-income areas in which they operate. The next section gives an overview of the economic importance of spaza shops in tackling unemployment.

2.3 THE ROLE OF SPAZA SHOPS IN TACKLING UNEMPLOYMENT

Township spaza shops are vital in creating job opportunities close to home and help to reduce poverty, improve quality of life, and foster long-term economic resilience in township communities (Asoba & Mefi, 2021; Priambodo, 2021). Their economic significance relies mostly on the intensity of the work factor rather than its dependence on the capital factor (Abisuga-Oyekunle et al., 2020). Their dependency on human labour as their main input is because of the limited access to start-up capital and lower barriers to entry (Mishra, 2022). The relationship between unemployment and poverty cannot be neglected as it is both direct and cyclical, creating a reinforcing loop that affects individuals and entire communities (Ngubane, Mndebele & Kaseeram, 2023). The statistical brief from the International Labour Office indicated that the labour intensity in SMMEs is much higher compared to large enterprises (Bonnet, 2019). SMMEs have the most businesses contributing to job creation worldwide (World Bank, 2022). However, these numbers might be higher if informal businesses are included. The National Development Plan (NDP) Vision 2030 for South Africa has prioritised full employment, poverty reduction, and equality. SMMEs that grow and are profitable have the potential to deliver multiplier effects that include reducing unemployment and alleviating poverty (Rungani, 2022). Several studies indicate that promoting SMMEs consciously can be an effective way to tackle unemployment as employment is one of the most visible indicators of economic activity (Priambodo, 2021). High unemployment impacts economic activity within communities, as fewer people have disposable income. In South African townships, spaza shops represent a livelihood as they offer employment to the owner and the employees. For many individuals, owning a small business is a path to economic empowerment and independence (Sanze et al., 2024). Spaza shops

often become family businesses, with successive generations inheriting and growing the business. This continuity allows families to build generational wealth and establish legacies that support long-term community wealth (Ngcobo, 2024; Sági, Chandler & Lentner, 2020).

In the second quarter of 2024, Stats SA reports that the official unemployment rate increased by 0,6% to 33,5% compared to the first quarter (Maluleke, 2024). This shows a dire crisis that needs urgent attention to grow profitable businesses. In township communities such as Mamelodi, employment is the primary means of income and many live in impoverished households (Nishimwe-Niyimbanira, Ngwenya & Niyimbanira, 2021). Therefore, an increase in unemployment leads to challenges in meeting basic needs.

On the contrary, Makina et al. (2015) argue that small businesses' contribution to employment creation and economic growth in South Africa is weak because most do not grow owing to a lack of skills. Skills are crucial for sustaining operations and ensuring profitability and growth often require forward-thinking and strategic planning, but many small business owners are so focused on day-to-day survival (Rye, 2020). Similarly, a study by Asoba and Mefi (2021) reveals that average small businesses are survivalists, and do not create jobs. This is because most are survivalists and do not expect to expand when they form businesses. Therefore, they are termed necessity-motivated entrepreneurs (Coffman & Sunny, 2021). The reasons for persistently not wanting to grow include being in industries that have low-efficiency scales such as spaza shops, beauticians, and plumbers because productivity is directly linked to the individual's skill set. Another reason for preferring to stay small is that fixed costs may be small compared to variable costs (Aghion et al., 2019). In agreement, a study by Kgaphola and Tawodzera (2019) found that on average, SMMEs in the townships are less productive and do not grow in any observable way. This is because of a lack of skills that are essential for growth.

2.3.1 Interventions by the South African Government to Grow Small Businesses

Growing profitable businesses is gaining prominence worldwide because of the potential to tackle unemployment and economic growth. Despite small business growth firmly on the national agenda, most townships have little potential for growth and, therefore, are less likely to create employment. The South African government implemented interventions that may help grow profitable businesses explained in the next section.

Township Entrepreneurs Alliance (TEA) is a platform for entrepreneurs in the informal sector that helps with mentorship and business support. The Small Enterprise Finance Agency (SEFA) has a clear mandate to develop sustainable SMMEs by providing funds. In Gauteng, the Gauteng Growth and Development Agency (GGDA) have an initiative called eKasiLabs, which is part of the government's township economy revitalisation strategy. Lastly, the Kasi Business Hub provides the necessary support that township businesses need to succeed. However, most informal businesses are not aware of these initiatives and programmes, or sometimes they do not meet the prerequisites to apply for them and are left behind (Rungani, 2022). Moreover, most opportunity holders do not understand township business indicating a dire crisis in the informal business sector. Despite setting up these platforms, they have not done enough to equip business owners to manage day-to-day finances. Moreover, their skills are not determined to enable interventions that perfectly solve the problem of business failure. Therefore, the next section details the essential skill set that may suit South Africa's township economy, without duplicating models that work in countries with different economic factors.

2.4 ESSENTIAL SKILLS TO GROW SMALL BUSINESSES

The entrepreneurship literature is loaded with empirical studies investigating factors contributing to small business failure caused by lack of skills (Babajid, Osabuohien, Tunji-Olayeni, Falola, Amodu, Olokoyo, Adegboye & Ehikioya, 2023; Tuffour et al., 2022). Skill refers to the capability to do the work well because of practice (Cambridge Dictionary, 2024). It is the knowledge acquired through training and is demonstrated by action. In this study, the focus was on financial management skills explained in the following section.

2.4.1 The Need for Financial Management Skills in Small Businesses

This section details the need to manage finances effectively in a small business. Financial management skill is the capability to use relevant knowledge to manage a financial problem (Dewi et al., 2020). Business success depends on how financial resources are managed. Poor financial management leads to bankruptcy while efficient management maintains financial stability (Dewi et al., 2020). A solid understanding of financial principles enables business owners to develop strategies and ensure the sustainability of their businesses. While a wealth of information is available on financial management in formal business, little is known about the state of financial management skills in informal business. Despite small businesses contributing to the economy, Bushe (2019) indicates that the mortality rate is increasing. Moreover, small businesses were hit hard during the coronavirus 2019 (COVID-19) crisis, resulting in business closure rates ranging from 20-40% (SMMEs and Entrepreneurship Outlook, 2021). The pace of recovery has slowed significantly, underlying a sense of fragility. Therefore, determining the finance management skills of small business owners in pursuit of growing profitable businesses is crucial.

Evaluating financial management skills helps to keep the business on a path to sustainability and growth, reducing risks and allowing for strategic, informed decisions that strengthen the business over time (Urefe, Chiekezie & Agu, 2024).

Financial management is one of the significant functions of a business and it is generally described as the bloodstream as it involves activities such as obtaining capital, ensuring efficient allocation of resources, and maximising income for the business` sustainability (Elali, 2021). A study by Gleißner, Günther and Walkshäusl (2022) posed a question on how to measure the financial sustainability of a business and indicators that must be fulfilled were proposed. First, a business must be able to survive without making demands on its owners and be able to avoid developments that put its existence at risk. Furthermore, the business` risk exposure must be acceptable to its owners. Lastly, it must ensure that it can survive in the long term without being terminated because of reasons such as insolvency or abandonment by its owners.

The following section examines the practices of small business owners in relation to expense tracking, cash flow management, profit calculation, and the evaluation of their financial management needs.

2.4.1.1 Expense Tracking Practice in Small Business

Expense tracking is a process of recording and monitoring money spent over a certain period (Urefe et al., 2024). It is a strategic practice that can drive business growth and profitability. Running a business costs money, and if a business owner does not know how much the expenses are, they can never know if they are making a profit or loss (Rye, 2020). Moreover, tracking expenses is important as it can be used when setting budgets by looking back over the past financial period and carrying forward each month`s expense to the current year (Folajinmi & Peter, 2020). Small township businesses are low-cost; therefore, the starting point is to increase profit through controlling expenses.

Accounting practices are dependent on factors that include business age, and the owners` accounting knowledge. As the business ages, its operations expand, and accounting practices grow more complex requiring greater sophistication in tracking,

analysing, and reporting financial data to support strategic decision-making (Fridson & Alvarez, 2022). Therefore, adapting accounting practices and knowledge to match the business stage is essential. In small businesses, the reason for not recording accounting transactions, especially expenses are the perception that accounting is not the main thing as business owners prioritise sales turnover (Kuttner, Mayr, Mitter & Duller, 2023). This is because sales directly impact cash flow, profitability, and competitive positioning. A study by Tyson and Schell (2024) confirmed that small businesses keep subsidiary books of accounts to capture sales and cost of sales. However, there is little accounting information that is captured on operating expenses.

When a business monitors expenses and sticks to a monthly budget, it can control the amount of money flowing out. By so doing, even a small price increase can push profits upwards. A study by Thukral (2021) found that small business owners do have expense-tracking skills. However, the expertise varies significantly. Another study indicated that most small businesses struggle to maintain organised and consistent tracing records, especially if they lack formal financial training (Folajinmi & Peter, 2020). Some common trends identified in expense tracking are challenges with consistency, outsourcing the service to professional accountants, and investing in software solutions. With experience, some small business owners develop better expense-tracking skills.

2.4.1.2 Cash Flow Management Practice in Small Business

The importance of cash flow for business sustainability cannot be overstated. Cashflow management ensures that the business has enough cash to meet short-term obligations, invest in opportunities and maintain financial stability (Urefe et al., 2024). Cash shortages may disrupt business operations, while excess cash may remain idling without contributing anything toward the business' profitability and growth (Kumrixon, 2024). Spaza shops are cash-based, and business owner-managers prefer to hold cash or highly liquid assets (Kgaphola & Tawodzera, 2019).

This is because they need to reduce transactional costs, as payments in cash or easily liquidated assets have lower costs than those that require cash from illiquid assets (Cowling et al., 2020). A survey by Amoah-Mensah (2023) concluded that SMMEs occasionally use petty cashbooks to record finances, and that optimum cash balance is always maintained. Similarly, Ernest (2018) observed that small businesses have sales books and record transactions daily.

In contrast, Fosu (2020) discovered that there is poor bookkeeping practice in cash controls such as cash receipts and payments in SMMEs. These poor systems of bookkeeping result in wrongful cost-benefit analysis, profit estimation and misplaced priority on product lines. Another study indicated that cash management practices among SMMEs were low as most do not practice formal cash management routines (Wadesango, Tinarwo, Sitcha & Machingambi, 2019). Many small business owners believe that cash management practices are non-essential and tedious, or they do not know how to implement them. Moreover, the day-to-day difficulties hinder their ability to manage finances.

It takes proper practice of cash management to ensure that a business is sustainable (Cowling et al., 2020). While cash flow management ensures that profit is available as liquid cash when needed, profit calculation shows how much money the business earns after costs (Athia et al., 2023). Together, they provide a complete financial picture that helps businesses to remain solvent, plan for growth and make data-driven financial decisions. Therefore, the next section details the profit calculation skill.

2.4.1.3 Profit Calculation Practise in Small Business

Calculating profit is a fundamental financial skill that involves determining the difference between revenue and expenses (Srivastava, 2023). Calculating profit in small businesses has generally been viewed as straightforward. However, it is critical because most do not get it right (Akoto et al., 2022). A study by Yang (2024)

indicates that small businesses often face challenges in calculating profit accurately, owing to limited resources and a lack of financial skills leading to overstating or understating profits. Other factors that contribute to overstating profits include overlooking expenses and not taking account of them. Expenses that are mostly overlooked are the owners' compensation and equipment depreciation (Coulon, 2021). Duplicating expenses when recording owing to human error is another cause for miscalculating profit in small businesses. It is, therefore, wise to reconcile accounting books to identify mistakes early and correct them before they affect financial statements leading to miscalculating profits (Bhatia et al., 2024). Those with resources hire accountants to handle the finances of the business. However, the cost can be a barrier for some small businesses, leading to relying on self-prepared financial statements which may be less precise.

2.4.1.4 Financial Skills Needs Assessment

After assessing the financial management skills of business owners in Mamelodi Township, it was critical to get a comprehensive view of the overall skill sets by revealing areas for improvement. Areas for improvement were based on financial statements. This was done to determine if business owners could compile and analyse financial statements. According to Urefe et al. (2024), analysing financial statements is a critical component that involves assessing a business' performance and health. Shure (2023) argues that financial reporting practices among SMMEs fall short of the dictated standards set by various external financial organisations. Therefore, a recommendation was made for policymakers to simplify financial reporting standards to fit SMMEs' reduced size and narrow stakeholder base. A study by Ohachosim, Ikem, Chidi and Titus (2021) discovered that small businesses lack the skill to prepare complete financial statements, with some not preparing any.

2.5 CHAPTER SUMMARY

In summary, the literature on the unique characteristics of spaza shops was reviewed and finance management skills were discussed. The chapter presented the three financial management skills that are relevant to small businesses: namely, expense tracking skills, cash flow management skills, and profit calculation skills. It was also explained why assessing the finance management need is important to come up with fluid interventions that may help to grow profitable businesses.

CHAPTER 3: RESEARCH METHODOLOGY AND DESIGN

3.1 INTRODUCTION

This chapter explains the methodology and design used. Research methodology and design is the framework and systematic approach used to conduct research. (Bell et al., 2022). Before assessing the financial management skills of spaza shop owners in Mamelodi township, the researcher had to plan and consider the appropriate method to use as recommended (Saunders et al., 2019). This section begins with a restatement of the study's purpose, followed by a discussion of the research objectives and hypotheses. It then outlines the research methodology and design, addresses ethical considerations, details the development of the data collection instrument, and describes the creation of the coding manual.

3.2 RESTATEMENT OF THE PURPOSE OF THE STUDY

The purpose of this study was to assess the financial management skills of spaza shop owners in Mamelodi Township, South Africa. Specifically, the study aimed to evaluate how effectively these entrepreneurs practice key financial skills, namely, expense tracking, cash flow management, profit calculation, and identifying financial management needs. By understanding the current level of financial skills among spaza shop owners, the study sought to highlight existing gaps and challenges that may affect business sustainability and growth. The findings were intended to inform the development of targeted support interventions that may enhance their financial capability, long-term viability and ultimately help them formalise their informal businesses. The next section revisits the objectives and hypotheses.

3.3 RESEARCH OBJECTIVES AND HYPOTHESES

This section defines and lists the objectives and hypotheses. Research objectives are the study results after implementation (Bell et al., 2022). Research hypotheses

are specific, testable predictions or statements about the expected outcomes of an analysis based on existing knowledge, theories or observations (Saunders et al., 2019). Research hypotheses give the foundation for a study, as they influence the approach, the method, the data to be gathered, and the analysis to be conducted (Bell et al., 2022). It starts with an imaginary statement of what the researcher aims to investigate and what findings are anticipated. According to Mishra and Alok (2022), good research hypotheses fulfil the following requirements. First, it should be verifiable through research. Secondly, the hypothesis requires clarity to enable others to test it. It should also be based on existing knowledge and contain both an explanation and a solution. By meeting these conditions, hypotheses become a robust foundation for scientific inquiry, guiding the research process and enabling meaningful conclusions. Objectives and hypotheses were formulated as follows:

Objective 1

To assess small business owners' Expense Tracking Skills (ETS).

The hypotheses that are linked to Objective 1 were formulated as follows:

Null Hypothesis (H1₀): Small business owners lack the skills to track business expenses.

Alternative Hypothesis (H1₁): Small business owners have the skills to track business expenses.

Objective 2

To assess small business owners' Cash Flow Management Skills (CFMS).

The hypotheses that are linked to Objective 2 were formulated as follows:

Null Hypothesis (H2₀): Small business owners lack the skills to manage business cash flow.

Alternative Hypothesis (H2₁): Small business owners have the skills to manage business cash flow.

Objective 3

To assess small business owners' Profit Calculation Skills (PCS).

The hypotheses that are linked to Objective 3 were formulated as follows:

Null Hypothesis (H3₀): Small business owners lack the skills to calculate business profit.

Alternative Hypothesis (H3₁): Small business owners have the skills to calculate business profit.

Objective 4

To assess small business owners' Finance Skills (FS) needs.

The hypotheses that are linked to the above objective 4 were formulated as follows:

Null Hypothesis (H4₀): Small business owners lack the skills to compile and analyse financial statements.

Alternative Hypothesis (H4₁): Small business owners have the skills to compile and analyse finance statements.

Data will be collected to test these formulated hypotheses and analysed to determine if either supported or not supported. In the following section, the research methodology of the study is discussed.

3.4 METHODOLOGY

The research purpose, objectives, and hypotheses were outlined in the foregoing section. In the current section, an insight into the methodology of the study is explained. Research methodology details the steps that the study committed to

follow to practically test for either support or lack of the formulated hypotheses (Bell et al., 2022). The following sections explain the positivist paradigm and the quantitative research method as applied in the study.

3.4.1 Positivist Paradigm

This section details the research paradigm of the study. Understanding the paradigm clarifies the research approach, enhances consistency and coherence, and guides methodological choices (Bell et al., 2022). The study is grounded in the positivist research paradigm. The positivist paradigm ascertains that valid knowledge must be based on empirical experience and observation, and that all knowledge must be measured and tested (Hasan, Purbajati, Munip & Putra 2024; Saunders et al., 2019).

In line with this paradigm, the study aimed to evaluate how effectively entrepreneurs manage key financial practices, namely, expense tracking, cash flow management, profit calculation, and identifying financial management needs. The key characteristics of the positivist paradigm that are evident in the study are the use of a structured instrument, a questionnaire, to collect data. The use of a standard questionnaire would ensure consistency and replicability. Also, the study emphasised on measurement in both the design and implementation of the research process. Measurement is the process of quantifying variables in a way that reflects objective reality. Aspects of measurement that would be upheld in the study are quantifying expense tracking skills, cash flow management skills, profit calculation skills, and finance skills needs using a Likert-scale marked from 1 to 5 to enable statistical analysis. To analyse data, the Statistical Package for Social Sciences (SPSS) is employed because of its efficiency and reliability, as recommended by (Pallant, 2016). Lastly, quantitative analysis would detect recurring trends, practices and skills gaps which may provide a clear picture of the current state of financial management skills among spaza shop owners.

3.4.2 Quantitative Research Method

The two major forms of research methodology are qualitative and quantitative (Saunders et al., 2019). Previous literature argues that no research methodology is better than the other, what is critical is the selection of the appropriate method (Mweshi & Sakyi, 2020). Therefore, research methodology depends on the fitness of purpose. According to Bel et al. (2022), Powell (2020) and Saunders et al. (2019), methodological choice shapes how the research is designed, conducted, and interpreted. The study would employ a quantitative research method to investigate the financial management skills of spaza shop owners. The quantitative research method will provide evidence-based insights that may inform targeted interventions. The approach is deemed appropriate for measuring specific financial competences, namely expense tracking, cash flow management, profit calculation, and finance skills needs using structured questionnaires. Data will be collected from conveniently available spaza shop owners and analysed statistically using the Statistical Package for the Social Science (SPSS). The following section details the research design.

3.5 RESEARCH DESIGN

The research design is a blueprint for conducting research that includes an explanation and discussion of the procedures recommended for data collection, data analyses and testing of the formulated hypotheses (Bell et al., 2022). The study followed a descriptive research design. Descriptive research design systematically describes the characteristics of a population by gathering information that presents a clear picture of a situation through surveys, interviews or observations. The descriptive research design was appropriate for the study as it enables the collection of quantitative data that describes the current state of financial management skills of spaza shop owners in Mamelodi Township. Variables that would assess financial management skills are expense tracking, cash flow management, profit calculation and financial management needs. A survey strategy will be employed to collect data using structured questionnaires, allowing for the collection of standardised and

quantifiable information as recommended by (Beck, 2024). The research design begins with the definition of the target population, followed by the sampling strategy and the determination of an appropriate sample size, discussed in the following subsections.

3.5.1 The Population of the Study

The population of the study consisted of spaza shop owners operating within Mamelodi Township, located in the City of Tshwane Metropolitan Municipality, Gauteng Province, South Africa. The population of informal spaza shops in Mamelodi is unknown because most of these businesses are unregistered, often home-based, and operate outside formal systems. Their numbers change frequently, and no official surveys have been done to count them. This group was selected because spaza shops represent a significant component of the informal economy in South African townships that provide essential goods and services to local communities. Spaza shop owners in Mamelodi are particularly relevant to this study due to the area's dense population, socio-economic diversity, and the high prevalence of informal business activities. These business owners vary in terms of their backgrounds, business experience, and financial management practices, making them an ideal population for assessing the range and depth of financial management skills as outlined in the study. By focusing on this specific population, the study aimed to generate context-specific insights that may provide a foundation for informing the development of targeted support interventions. The study committed to collect data from spaza shops that meet the following strict delineation criteria. Participants were required to be the owners of their respective spaza shops. They had to be located within Mamelodi Township and registered with the City of Tshwane. Additionally, the shop owners must have been actively involved in the daily financial operations of the business for a period of at least one year. After identifying and delineating the study population, the researcher identified the sampling strategy discussed in the following section.

3.5.2 Sampling Strategy

In this section, the sampling strategy is explained. A sample is a subset of the population that is selected to be representative of a larger population (Saunders et al., 2019). The choice of methodology in the informal sector is limited. This is because it is characterised by a lack of databases from which to choose a research methodology (Mabasa, 2023). In a study by Mabasa (2024) non-probability convenience sampling within a quantitative research framework was employed. This was because the list of spaza shops from the City of Tshwane was outdated. In a study conducted ten years before, by Tsoka (2013) the same approach was also used because there was no reliable list of spaza shops in Mamelodi Township. The City of Tshwane Municipality will be approached for a list of spaza shops operating in Mamelodi Township; however, should the researcher fail to get it, the study will adopt a non-probability convenience sampling strategy. Convenience sampling will be ideal due to its practicality and accessibility, allowing the researcher to collect data efficiently from spaza shop owners who are readily available and willing to participate. Given the informal and dispersed nature of spaza businesses in Mamelodi Township, this method is appropriate for reaching a sufficient number of respondents within the limited time and resource constraints of the study. Furthermore, it provides valuable insights into the financial management skills of spaza shop owners within the selected context. In the following section, the sample size is explained.

3.5.3 Sample Size

The sample size is the number of participants included in a study (Taherdoost, 2021). The sample size affects the accuracy and reliability of the study results. Therefore, determining a sufficient sample size is crucial. According to Costello and Osborne (2005), the recommended sample sizes for exploratory and confirmatory factor analysis are 150 and 200, respectively. Therefore, in determining the sample size, the study will strive to have the sample size above this minimum threshold. When

using non-probability convenience sampling, the sample size is not determined in advance, and knowledge about the group from which the sample is taken is limited (Stratton, 2021). However, primary data will be collected from respondents based on availability and willingness. The following section explains the ethical considerations that were recommended for the study.

3.6 ETHICAL CONSIDERATIONS

The processes followed to comply with the university policies on ethical research study is explained in this section. These include permission requests from authorities outside the university. the ethical clearance application process is discussed separately in the following sections:

3.6.1 The Process for Requesting Permission to Conduct the Study

This section provides an account of the process for requesting permission from the gatekeeper. It is another requirement that permission to conduct a study must be obtained from the gatekeepers if involved in the study (UNISA, 2016). As guided by Unisa policy on research ethics, the ethical clearance certificate does not mean the request for permission from the gatekeepers must be overlooked (UNISA, 2016). Permission will be requested from the City of Tshwane to conduct the study in Mamelodi Township. The study will comply by ensuring that a permission letter be obtained before the ethical clearance application process. Once the permission letter is obtained, the ethical clearance application process will be initiated as explained in the following section.

3.6.2 Ethical Clearance Application Process

The section provides an account of the ethical clearance application process. Ethical clearance consists of obtaining approval from an ethics review committee to ensure the study is conducted ethically and respects the rights and dignity of participants.

By so doing, it minimises potential harm, maintains privacy and confidentiality, and avoids deception in research (Alvesson & Stephens, 2024). The ethical clearance will be applied from the Department of Business Management Ethics Committee at Unisa. It is one of the requirements that, before data can be collected for a study, ethical clearance must be obtained. The Unisa policy on research ethics warns that a study cannot be conducted retrospectively, meaning that ethical clearance must be obtained before any data collection process can commence, and not after data collection has been conducted (UNISA, 2016). The ethical clearance outlines, among others, the adherence to values and principles that are in Unisa policy on research ethics, namely privacy, anonymity, confidentiality and honesty. Once this activity is completed, data collection instrument will be developed as discussed in the following section.

3.7 DATA COLLECTION INSTRUMENT

This section describes the process of developing the questionnaire. The data collection instrument is a tool used in research to gather information from respondents (Beck, 2024). A structured questionnaire was developed as the primary data collection instrument for this study because there was no instrument that perfectly suited the study. The questionnaire will be specifically designed to assess financial management skills among spaza shop owners, covering key areas such as expense tracking, cash flow management, profit calculation, and financial management needs.

When developing a questionnaire, it is recommended first to identify the information that needs to be collected, including different aspects of the topic (Taherdoost, 2021). It is also recommended that the questions be carefully designed and clearly expressed according to the level of the participants and that proper instructions be given on how to fill in the responses (Beck, 2024). To ensure that the questionnaire would be capable of capturing accurate and meaningful data during the main phase of the study, a pre-test and pilot test were done as explained in the following sections.

3.7.1 Pre-test Study

Pre-testing is the process of evaluating and refining a research instrument before it is administered in a main study (Hair, William, Black, Babin & Anderson 2014; Saunders et al., 2019). Previous studies recommend that a pre-test should be carried out in a population with conditions close to the actual data collection (Bell et al., 2022; Hashi, Mohamad, Abdul & Che 2022). Before rolling out the questionnaire for pre-testing, the researcher requested the services of the English language editor to enhance its quality and readability. The pre-test was conducted on 20 spaza shop owners in Ga-Rankuwa Township. The participants represented a cross-section of business experience, gender, and age to ensure that the instrument would be effective across the broader target population. The small-scale sample size of 20 participants for the pre-test was sufficient to highlight the respondents' understanding of the questionnaire. The pre-test forms were divided into three parts: the cover letter to introduce the study, the questionnaire, and the pre-test form to provide feedback on the clarity, language and the overall questions. The questionnaire was further assessed to determine whether it accurately measures what it is intended to measure as explained in the following section.

3.7.1.2 Determining the Validity of the Questionnaire

Determining the validity of the questionnaire is grouped into content, face and criterion validity as explained below.

Content and Face Validity

To get an expert review, content and face validity are considered. Content validity is the extent to which an instrument adequately covers relevant aspects of a measured concept, while face validity is the degree to which a questionnaire appears to measure what it claims to measure (Saunders et al., 2019). To cover all relevant aspects of the study, the researcher clearly defined finance management constructs

to be tested, which are: cash flow management, tracking expenses and calculating profit. The draft questionnaire was assessed by the researcher's supervisor, an expert in the subject matter. The supervisor critically reviewed the questions and identified issues that would lead to measurement errors. The feedback was incorporated, and the questionnaire was revised as per the comments.

Criterion Validity

Criterion validity evaluates how well a test predicts a real-world outcome (Saunders et al., 2019). Previous studies indicate that, high finance management skills predict business growth and profitability (Dewi et al., 2020). Therefore, the newly developed questionnaire produced the same results therefore it was trusted to reflect actual financial behaviour. Based on the feedback received, the questionnaire was revised accordingly to improve its comprehensibility and effectiveness

3.7.2 Pilot Study

Following the pre-test and subsequent revisions of the questionnaire, a pilot test was conducted to further validate the research instrument and refine the data collection procedures before the full-scale study. While the pre-test focused on the clarity and understanding of the questionnaire items, the pilot test assessed the instrument's consistency and internal reliability, identify any challenges in administering the instrument and tests the effectiveness of the data collection process. The reliability analysis was conducted using Cronbach alpha for internal consistency as explained below.

3.7.2.1 Determining the reliability of the questionnaire

A preliminary reliability test was conducted on the responses using Cronbach's alpha. This was done to determine the internal consistency of the questionnaire items as recommended by (Marcial & Launer, 2021). The items were grouped under

three financial skill constructs, namely expense tracking, cash flow management, and profit calculation, explained as follows

Expense Tracking Skills (Question 7–Question 9)

- Cronbach's Alpha = 0.883, indicating high internal consistency.
- Inter-item correlation mean = 0.822 (above the minimum threshold of 0.3).
- Corrected item-total correlations ranged from 0.796 to 0.936, confirming a strong relationship among items.

The reliability results indicated that the items from questions 7 to 9 are reliable for measuring awareness and confidence in expense tracking.

Cash Flow Management Skills (Question 10–Question 15)

- Cronbach's Alpha = 0.917, also indicating excellent internal reliability.
- Inter-item correlation mean = 0.626, above the acceptable threshold.
- Item-total correlations for most items were high (0.650 to 0.942), except for Q15 ($\alpha = 0.269$). Although this is slightly below 0.30, it is still acceptable within social sciences research (Jaccard & Becker, 2002).

The reliability results confirm a strong internal consistency among the six items in questions 10 to 15.

Profit Calculation Skills (Question 16–Question 17)

- Cronbach's Alpha = 0.598, lower than the ideal threshold (0.70), but still acceptable due to the limited number of items (García-García, Gil & Lubiano 2024).
- Inter-item correlation = 0.444, indicating a moderate relationship.
- Both items showed moderate corrected item-total correlations of 0.444.

Across all three financial skills constructs, the instrument demonstrated acceptable to high internal reliability and inter-item correlations. These results provided assurance that the research instrument is suitable for data collection in the main study. Corrections were incorporated and the questionnaire was rolled out for the data collection in the main study as discussed in the following section.

3.8 DESIGNING OF THE CODING MANUAL FOR THE INSTRUMENT

Quantitative data coding converts qualitative data such as close-ended responses into a numeric format that can be analysed statistically (Kotronoulas, Miguel, Dowling, Fernández-Ortega, Colomer-Lahiguera, Bağçivan, Pape, Drury, Semple, Dieperink & Papadopoulou, 2023). This process is crucial to enable organising and interpreting data systematically. The coding manual will be developed by assigning numbers to all the questions on the questionnaire.

3.9 SUMMARY

This chapter outlined the research approach used to assess financial management skills among spaza shop owners in Mamelodi Township. A quantitative research design will be adopted to allow for objective measurement and statistical analysis. A non-probability convenience sampling method will be employed due to the informal nature of the businesses and accessibility of participants. Ethical clearance will be applied for from unisa, and permission to conduct the research from the City of Tshwane. The chapter also details the development of the questionnaire and the procedures followed to determine its validity and reliability. The following chapter gives an account of the practical aspect of the study.

CHAPTER 4: DATA ANALYSIS AND PRESENTATION OF RESULT

4.1 INTRODUCTION

In this section, the data collection process will be briefly discussed before detailed results are presented. Data analysis will be used to interpret the gathered data on the financial management skills of small business owners. Statistical tools and techniques were used to summarise data, identify trends and draw conclusions on research objectives. The results are presented using tables and narrative explanations to provide findings. Raw data is linked with actionable insights to present informed discussions and recommendations. The following section briefly summarises the data collection process.

4.2 A SUMMARY OF DATA COLLECTION ACTIVITIES

Data collection was based on a structured plan that guided the researcher to what data needs to be collected, how long it took to collect, and how to collect it as recommended by (Hashim et al., 2022). **Appendix A** contains a copy of the ethics clearance certificate granted for the study. Permission to conduct the research in Mamelodi Township was obtained from the City of Tshwane, and the approval letter is included in **Appendix B**. Before taking part in the study, all participants were required to sign a consent form, which is provided in **Appendix C**. A new research instrument was developed specifically for this study, as no existing instrument fully addressed the research objectives. The final version of the questionnaire is presented in **Appendix D**. Insights from the pilot study confirmed that the most effective method for data collection would be through face-to-face interview questionnaires. The pilot study revealed that spaza shop owners are generally unorganised. Therefore, leaving questionnaires for later completion would likely result in them being misplaced or ignored due to the owners' limited availability and constant engagement with customers. **Appendix E** is a pre-test questionnaire feedback form.

Conducting interviews in person while the owners continue with their daily operations proved to be the most practical and responsive approach. From 27 April 2024 to 07 July 2024, the researcher collected data from spaza shop owners in Mamelodi Township. The population database of informal spaza shop owners as provided by the City of Tshwane was not updated, as the census was done more than 7 years ago and was deemed outdated. The study needed a bigger number to reach 150 for exploratory and 200 for Confirmatory as recommended by (Costello & Osborne, 2005). Due to the informal nature of the business and limited access to a full population list, data was collected from 217 spaza shop owners in Mamelodi Township, based on their availability and willingness to participate. The response rate was 100%. 217 out of 217 questionnaires were returned and usable. This was achieved through face-to-face distribution and collection of the questionnaires, conducted during pre-arranged visits on-site, which helped ensure full participation. Follow-ups were also conducted on the same day to resolve any incomplete responses. Most respondents were willing to participate except for the following challenges that were encountered. The data were analysed using SPSS by a qualified statistician, while the dissertation was edited by a professional English language editor. Both individuals signed third-party confidentiality agreement forms, which are included as **Annexures F** and **G**, respectively.

4.2.1 Challenges Encountered

Conducting field-based research among spaza shop owners in Mamelodi Township presented several challenges that impacted data collection. These challenges were addressed through adaptive strategies to ensure the integrity and quality of the research process. Some participants demanded financial compensation despite being informed that participation was voluntary and uncompensated. This led to the exclusion of 17 potential respondents who insisted on payment. The researcher emphasised the potential impact of their input on improving support for small businesses to encourage voluntary participation. Spaza shop owners operate in a fast-paced environment with minimal downtime. Many were too busy to engage in

lengthy interviews. To overcome this, data collection was scheduled during off-peak hours (early mornings and late afternoons on weekends), improving response rates and minimising disruption to business operations. Several foreign-owned spaza shops were operated by individuals with limited English proficiency. Due to financial constraints, no interpreters were employed. Instead, the researcher simplified key financial terms using real-life examples (e.g., explaining “cash flow” in terms of daily sales and purchases), read the questions aloud, and completed the questionnaire on behalf of the respondents to avoid confusion and reduce cognitive load. Some foreign shop owners expressed reluctance to participate due to fear of legal or safety consequences. Despite assurances of anonymity, their distrust was evident. To address this, the researcher presented ethical clearance documents from Unisa, displayed the official research permission letter from the City of Tshwane, and explained the research purpose in simple and reassuring terms. The ethical transparency, and respectful engagement with participants ensured successful data collection and meaningful insights for the study. The following sections explain how quality was ensured for the study.

4.2.2 Data Collection Quality Checks

Ensuring the best practice for the collected data was crucial for the study. The measures taken to ensure quality included checking for missing pages of the questionnaire. Informed consent was obtained from each participant before data collection. Participants were assured that participation was voluntary and they could withdraw at any time without penalty. Furthermore, participants were assured that no identifiable personal information would be disclosed. To build trust among the participants, ethical clearance from Unisa and official permission from the City of Tshwane were shown. To clean data, the researcher conducted periodic audits to check for completeness, accuracy and consistency of responses. Incomplete questionnaires were discarded and excluded from the final dataset. Raw responses were converted into numerical codes to enable statistical analysis. Data were entered into Microsoft Excel, with cross-checking performed to minimise entry errors.

and improve reliability. These quality control steps helped ensure that the data collected were valid, accurate, and reflective of the actual financial management practices of spaza shop owners in Mamelodi Township.

Effective data preservation in research is recommended to ensure long-term usability, integrity and accessibility data (UNISA, 2016). To preserve data, the following was adhered to. All the hard copies of the data collected were stored in a lockable file cabinet. Backup and data storage, solutions such as local drives, cloud storage, and the Unisa repository were used. Sensitive data was protected using encryption and access controls with passwords, while adhering to the Protection of Personal Information Act 4 of 2013 (POPIA). In addition, The Unisa guidelines on data preservation and sharing were followed (UNISA, 2016).

The following section is a recap of the study objectives and hypothesis.

4.3 STUDY OBJECTIVES AND HYPOTHESIS

To determine the finance management skills, focusing on the business owners perceived knowledge, confidence, usefulness, and awareness in tracking expenses, managing cash flow, and calculating the profit of their businesses in the informal sector.

4.4 RESEARCH HYPOTHESES

A hypothesis is a statement based on known facts that have not yet been proven (Marcial & Launer, 2021). A hypothesis has two types, namely, the null and the alternative. A null hypothesis is a statement that assumes no effect, and an alternative hypothesis suggests that there is an effect (Bell et al., 2022). Hypotheses were tested to determine whether small business owners can effectively track expenses, manage cash flow, calculate profit, and assess their finance management needs.

Objective 1

To assess small business owners' Expense Tracking Skills (ETS).

Null Hypothesis (H₀₁): Small business owners lack the skills to track business expenses.

Alternative Hypothesis (H₁): Small business owners have skills to track business expenses.

Objective 2

To assess small business owners' Cash Flow Management Skills (CFMS).

Null Hypothesis (H₀₂): Small business owners lack the skill to manage business cash flow.

Alternative Hypothesis (H₂): Small business owners have the skill to manage business cash flow.

Objective 3

To assess small business owners' Profit Calculation Skills (PCS).

Null Hypothesis (H₀₃): Small business owners lack the skill to calculate business profit.

Alternative hypothesis (H₃): Small business owners have the skill to calculate business profit.

Objective 4

To assess small business owners' Finance Skills (FS) needs.

Null Hypothesis (H₀₄): Small businesses lack the skill to compile and analyse financial statements.

Alternative Hypothesis (H₄): Small business owners have the skill to compile and analyse financial statements. The following section is on data analysis and presentation of results

4.5 DATA ANALYSIS AND PRESENTATION OF RESULTS

This section presents study results and findings and is structured as follows: first, descriptive statistics are presented, followed by sample size and significance testing, Next, the reliability is examined, and the correlation and factor analysis are discussed.

4.5.1 Descriptive Statistics Analysis

Descriptive statistics use pictorial or graphical representations to describe and summarise data (Bell et al., 2022). It helps to identify specific trends in data. Saunders et al. (2019) assert that descriptive statistical analysis is the most basic data analysis. The following section discusses the descriptive statistics for the study.

4.5.1.1 Inclusion and exclusion of participants in the study (screening of potential participants)

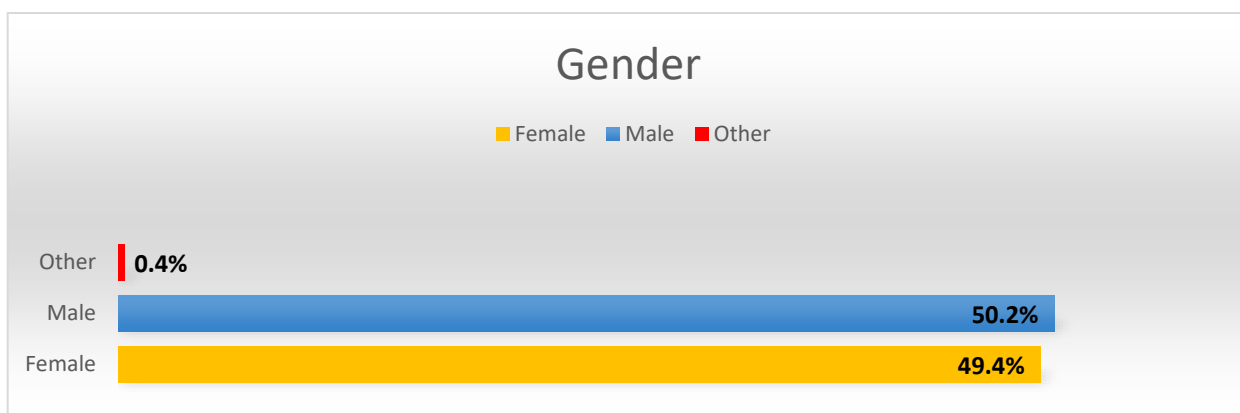
The questionnaire had two qualifying questions to screen respondents who were not eligible. Respondents were not registered with the local authorities and those who had operated for less than one year were excluded from the study, as the survey assumed they did not have enough experience.

4.5.1.2 The Demographics

Demographical information was collected for the study. The demographical variables were gender, age group, nature of business, and the number of years in operation. The demographic information was used to obtain some insights about the

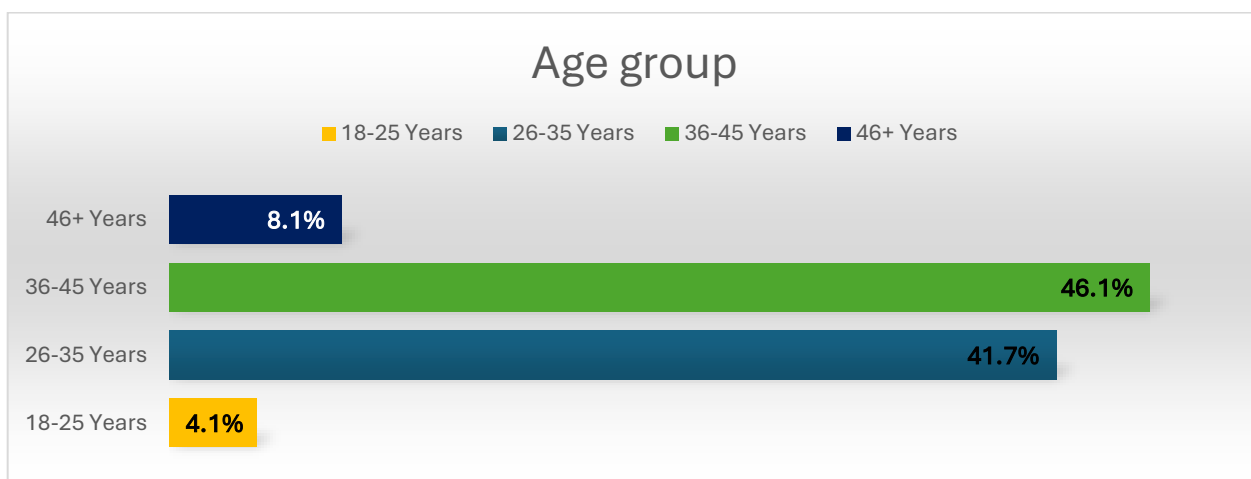
characteristics of the participants (business owners). The demographics are presented next:

Figure 4.1: The gender composition of the respondents, N=271



As shown in Figure 4.1, most participants were male 50.2% (n=136), while female participants were 49,4% (n=134). The least respondents were those categorised as other at 0,4% (n=1). In the following paragraph, the age profile is presented next.

Figure 4.2: Distribution of respondents according to age, N=271



The study participants' age profile was divided into groups, namely, ages between 18 - 25 years; 26 - 35 years; 36 - 45 years; and 46+ years. According to Brieger,

Bäro, Criaco and Terjesen (2020) Individuals' orientation towards entrepreneurial activities differs depending on where they stand in their lifespan. Therefore, the age categories were informed by life stages as explained next.

18-25 Years: This age group represents young adults who may be just entering the workforce, starting their businesses, or gaining initial exposure to finance management. Their financial skills may be in the early stages of development. According to the lifespan psychology perspective, young adulthood is a period of exploration (Brieger et al., 2020).

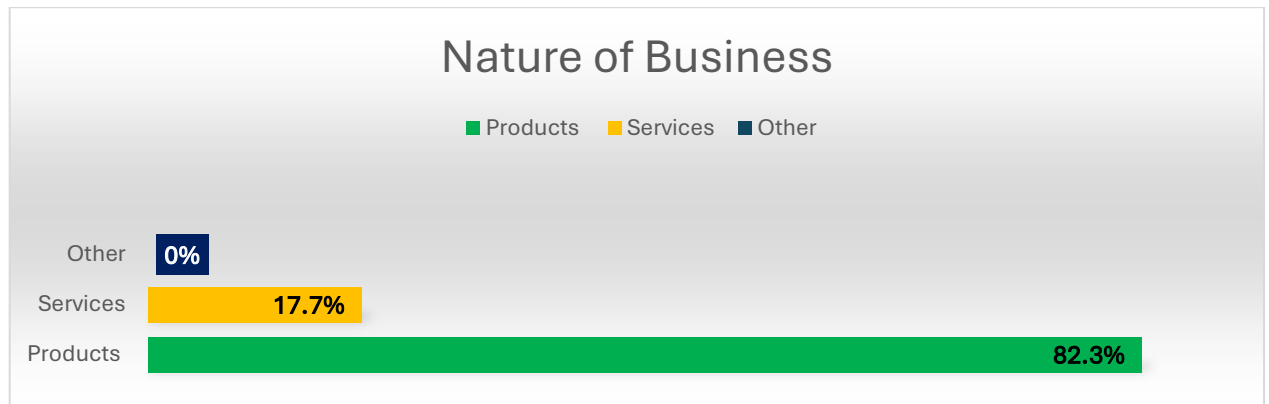
26-35 Years: This age group is often in a more established phase of their careers or businesses. They may have gained some experience managing finances or running a business and could be at a critical stage of building their financial acumen. This middle adulthood is a period of growth and maintenance (Brieger et al., 2020).

36-45 Years: This age group is likely to have considerable business experience. Their financial skills may be more advanced, as they had more time to learn through practice, formal education or business growth.

46+ Years: This group typically encompasses individuals with the most experience. The experience may be in running businesses or managing business finances over a long period. They may also have knowledge and experience of business compared to the younger age groups (Brieger et al., 2020).

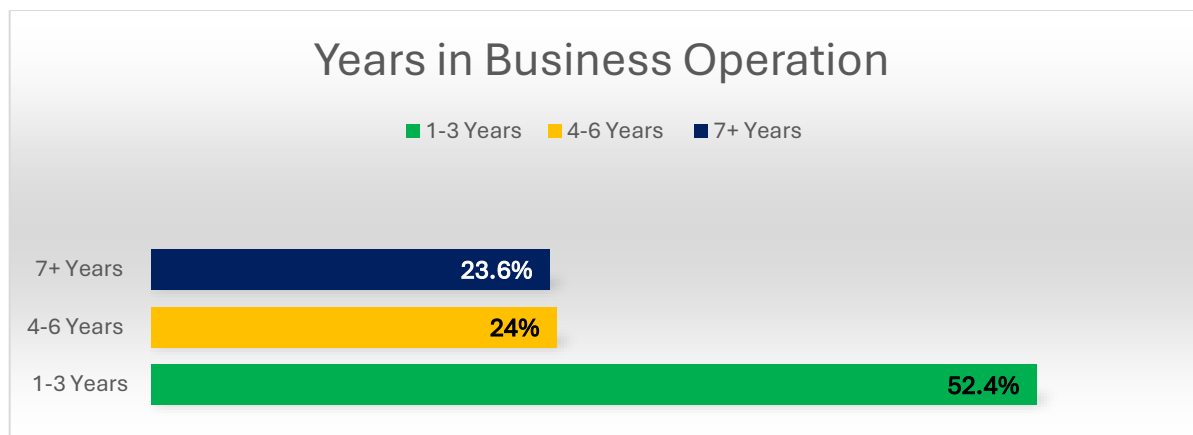
Respondents between 36-45 years old in this study constituted the largest age group at 46.1% (n=125) while respondents between 18-25 years constituted the lowest age group at 4.1% (n=11). Ages 26-35 years had the second highest responses at 41.7%, while ages 46+ had 8.1% responses. In the following section, the nature of the businesses is reported. The nature of the business is presented in this section. Participants were requested to state the nature of their business. There were three categories for the variable, namely, services, products, and others, shown in Figure 4.3:

Figure 4.3: Nature of business, N=271



As illustrated in Figure 4.3, out of the 217 respondents, 82.3% were in the businesses that offer products. Only 17.7% of the respondents were in the business of offering services. Those who offered both products and services were not represented. In the following section, the profile of years in operation is presented.

Figure 4.4: Years of Business Operation, N=271



The profile of the years the business operation is reported, and was divided into three groups, namely 1 - 3 years; 4 - 6 years; and 7+ years. Figure 4.4 presents data on the years of operation of the spaza shops. The years in business operation grouping is informed by key factors related to the business lifecycle, the learning curve and the challenges businesses face as they mature as explained below:

1-3 years: Businesses in this category are in the start-up and early-growth phases of a business.

4-6 years: Businesses in this category have survived the initial stages and are now moving into a phase of stabilisation or early expansion.

7+ years: Businesses in this category are generally well-established and have a track record of surviving the challenges of earlier years.

As illustrated in Table 4.4, most spaza shops have been in existence for 1-3 years with 52.4% representation. Some businesses have been in operation for between 4-6 years at 24%. At least 23.6% of businesses have been in business for 7 years or more. The following section reports on the sample size and significant testing.

4.6 SAMPLE SIZE AND SIGNIFICANT TESTING

The sample size and its significance were determined using Bartlett's Test of Sphericity and Kaiser-Meyer-Olkin (KMO) tests. The sample size suitability was also tested using the KMO. Bartlett's Test of Sphericity ensures that there are enough significant correlations for factor analysis.

The factor analysis outputs are factor loadings, eigenvalues and factor scores (Hair et al., 2014). Factor loadings show the correlations between observed variables and underlying factors (Pallant, 2016). They vary from -1 to 1. When the factors are close to -1 or 1, the more they affect the variable. Factor loadings of zero indicates that there is no effect (Hair et al., 2014). When conducting factor analysis, data are analysed using a correlation matrix to capture the relationships. The eigenvalues of the correlation matrix represent the variance in the data that is accounted for by each factor or component extracted during the analysis (Pallant, 2016). One common criterion is to retain factors that have eigenvalues greater than 1. This is known as the Kaiser criterion explained in the next section. An eigenvalue greater than 1

indicates the factor explains more variance than a single observed variable. Factor score is the quantified estimate of the underlying factors for each observation. They interpret the factor analysis results, allowing for further analysis and application in various domains. Factor scores are computed using various methods, namely, the Regression method, Thurston's method, Anderson-Rubin method, and Bartlett's method. Bartlett's method was employed and explained in the next section.

Kaiser-Meyer-Olkin (KMO) tested the sample size adequacy. According to Pallant (2016) the KMO values between 0.8 and 1.0 indicate an adequate sample size. The KMO values between 0.7 to 0.79 are at the middle and values 0.6 to 0.69 are mediocre. Values of less than 0.6 suggest the sampling is inadequate while values less than 0.5 are unacceptable and the factor analysis could be inadequate.

Bartlett's test of Sphericity is a key diagnostic tool that is used in factor analysis to determine whether the correlation matrix of the variables is appropriate for factor extraction (Pallant, 2016).

Bartlett's test evaluates the correlations between variables that are large enough to justify the application of factor analysis. If the variables do not correlate, factor analysis might not be appropriate because there would be no underlying factors to extract (Pallant, 2016).

Table 4.1: Kaiser-Meyer-Olkin (KMO) and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.931
Bartlett's Test of Sphericity	Approx. Chi-Square	6695.015
	df	120
	Sig.	0.000

Table 4.1 presents the results of (KMO) and Bartlett's Test. The KMO index shows 0.931. This indicates that the data produce reliable and interpretable factors. The significance value (Sig.) of 0.000 in Bartlett's Test of Sphericity indicates that the test

is statistically significant. The significant p-value suggests correlations to proceed with factor analysis. The following section explains the reliability test of the instrument.

4.7 TESTING THE INTERNAL CONSISTENCY OF INSTRUMENT

Reliability indicates how consistently a data set produces stable results over time (Saunders et al., 2019). According to Schrepp (2020) frequently used indicators of a scale's reliability are test-retest reliability and internal consistency. Internal consistency reliability using Cronbach's coefficient alpha was measured. According to Nasir and Sukmawati (2023) the correlation coefficient (r) ranges from - 1 to 1. When $r = 1$, it means a perfect positive correlation where items measure the same construct. When $r = 0$, it means there is no correlation where items do not measure the same construct at all. When $r = - 1$, it means a negative correlation where items measure opposite constructs. Nunnally's rule of thumb for Cronbach's alpha in quantitative measurement is 0.70 (Pallant, 2016). However, a Cronbach alpha of 0.60 is still acceptable if the scale has fewer items. Cronbach's alpha can be influenced by the number of items in the scale. A scale with more items generally increases alpha. However, it does not necessarily give a meaning of better reliability, while fewer than ten items result in a small Cronbach alpha value (Pallant, 2016). The instrument is composed of the following scales, namely, Expense Tracking Skills, Cash Flow Management Skills, Profit Calculation Skills, and Finance Skills needs assessment.

4.7.1 Expense Tracking Skills Scale

Table 4.2: Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.950	0.951	4

Alpha obtained for internal consistency as shown in Table 4.2 for the 4 items. Expenses Tracking Skill scale indicates overall Cronbach alpha of $\alpha=0.951$. Based on the given value, the measurement scale of the instrument, namely, the Expense Tracking Skills scale is of acceptable reliability. Instead of only relying on one reliability consistency test, in the following section, the summary item statistics test the inter-item correlations of the Expenses Tracking Skill scale reported. In the following section, the results of item statistics results are discussed.

The results of the item statistics of Expenses Tracking Skill scale are discussed.

Table 4.3: Item Statistics

	Mean	Std. Deviation	n
7. [Expense Tracking Skill] I am aware of the importance of expense-tracking practices in my business.	2.57	1.474	271
8. [Expense Tracking Skill] I know the various expense-tracking methods and tools.	2.41	1.457	271
9. [Expense Tracking Skill] I am confident in my ability to track business expenses.	2.20	1.381	271
10. [Expense Tracking Skill] I find tracking expenses useful for my business.	2.54	1.500	271

The mean value is an indicator of central tendency in survey research (Pallant, 2016). The mean value often serves as a primary indicator of how respondents generally feel or perceive a given construct (Hair et al., 2014). The outcome of the Item Statistics shown in Table 4.3 compares mean values of 4 items in the Expense Tracking Skill scale. Mean value of all items ranges between $X = 2.20$ and $X = 2.57$. The mean results suggest that owners are better aware of the importance of expense-tracking practices in their businesses at a mean of $X = 2.57$ and least confident in their ability to track business expenses in their businesses at a mean $X = 2.20$. Whereas they are knowledgeable with the various expense-tracking methods and tools with a mean value of $X = 2.41$, and a mean value of $X = 2.54$ in finding the tracking of expenses useful for their businesses. The results of Summary Item

Statistics of inter-item correlations test of the Expenses Tracking Skill scale are reported next.

Table 4.4: Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Inter-Item Correlations	0.828	0.752	0.905	0.154	1.205	0.003	4

The results of the Inter Item correlations of summary item statistics for the Expense Tracking Skills scale showed a mean value of $X = 0.828$. The minimum acceptable mean for the inter-item correlations test is $X = 0.3$ (Hair et al., 2014; Pallant, 2016). The given value, measurement instrument scale is of acceptable reliability. The Item-Total Statistics test was conducted and reported next.

Table 4.5: Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
7. [Expense Tracking Skill] I am aware of the importance of expense- tracking practices in my business.	7.14	17.128	0.830	0.716	0.950
8. [Expense Tracking Skill] I know the various expense-tracking methods and tools.	7.31	16.532	0.908	0.860	0.926
9. [Expense Tracking Skill] I am confident in my ability to track business expenses.	7.51	17.362	0.882	0.831	0.935
10. [Expense Tracking Skill] I find tracking expenses useful for my business.	7.18	16.272	0.901	0.815	0.928

The minimum acceptable mean value for Item-Total Statistics, focusing on Corrected Item-Total Correlation is $X = 0.3$ (Hair et al., 2014; Pallant, 2016). The corrected Item-Total Correlation is a statistical measure to evaluate the reliability and internal consistency of the questionnaire or scale (Deng, Deng & Cheong, 2021). The purpose is to identify items that may not be consistent with the measured overall construct. A mean value of greater than $X = 0.3$ indicates a good measure of an overall construct (Pallant, 2016). In Table 4.5, the correlated Item-total correlation ranges between $X = 0.830$ and $X = 0.908$. The results show that the items in the Tracking Skills scale are of acceptable correlations and internal reliability being measured. The reliability of the other aspect of the instrument, namely, the Cash Flow Management Skills scale is tested and reported in the following section.

4.7.2 Cash Flow Management Skills Scale

The Cash Flow Management Skills scale is tested and reported in this section.

Table 4.6: Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.953	0.953	5

The outcome of Cronbach's alpha is illustrated in Table 4.6 for the 5 items of the Cash Flow Management Skill scale. The Cronbach's alpha is $\alpha=0.953$. Based on the obtained value, the measurement instrument scale, namely the Cash Flow management skills scale is of acceptable reliability. The following section presents item statistics.

The outcome of item statistics is presented and discussed.

Table 4.7: Item Statistics

	Mean	Std. Deviation	n
11. [Cash Flow Management Skill] I know the concept of cash flow (cash in - cash out) management.	3.03	1.524	271

	Mean	Std. Deviation	n
12. [Cash Flow Management Skill] I find cash flow (cash in – cash out) management useful for my business.	2.82	1.524	271
13. [Cash Flow Management Skill] I am confident in my ability to effectively monitor cash flow (cash in – cash out) management.	2.27	1.457	271
14. [Cash Flow Management Skill] I perform cash flow planning in my business.	2.57	1.550	271
15. [Cash Flow Management Skill] I am aware of the negative consequences of lack of or poor cash flow (cash in – cash out) management.	2.63	1.497	271

The outcome of Item Statistics in Table 8 compares mean values of 5 items in the Cash Flow Management scale. The mean value of the items in the scale ranges between $X=2.27$ and $X=3.03$. The mean results suggest that respondents have a moderate understanding of cash flow management (Mean = 3.03) and find it somewhat useful for their business (Mean = 2.82). However, their confidence in effectively monitoring cash flow is low (Mean = 2.27), and their practice of cash flow planning is inconsistent (Mean = 2.57). Awareness of the negative consequences of poor cash flow management is moderate (Mean = 2.63), but there is still room for improvement in both awareness and practical application of these skills. In the following section, the test of the Inter-Item Correlations of Summary Item Statistics is reported next. The outcome of the Summary Item Statistics for the Inter-Item Correlations are reported next.

Table 4.8: Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Inter-Item Correlations	0.802	0.657	0.911	0.254	1.386	0.005	5

The Summary Item Statistics for Inter-Item Correlations of the Cash Flow Management Skill scale has a mean value of $X=0.802$. The results suggest that items in the Cash Flow Management Skill scale have achieved acceptable

correlations and internal reliability consistency. The Item—Total Statistics test of the Cash Flow Management Skill scale was conducted and reported next.

Table 4.9: Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
11. [Cash Flow Management Skill] I know the concept of cash flow (cash in - cash out) management.	10.29	31.896	0.801	0.719	0.953
12. [Cash Flow Management Skill] I find cash flow (cash in – cash out) management useful for my business.	10.49	31.014	0.864	0.808	0.943
13. [Cash Flow Management Skill] I am confident in my ability to effectively monitor cash flow (cash in – cash out) management.	11.05	31.979	0.843	0.776	0.946
14. [Cash Flow Management Skill] I perform cash flow planning in my business.	10.75	30.144	0.908	0.883	0.935
15. [Cash Flow Management Skill] I am aware of the negative consequences of lack of or poor cash flow (cash in – cash out) management.	10.69	30.386	0.932	0.899	0.931

The Corrected Item-Total Correlation values in Table 4.9 show that all the items on the cash flow management skills scale are strongly correlated with the overall construct, with values ranging from 0.801 to 0.932. This indicates that each item is consistent with the overall scale and contributes meaningfully to measuring cash flow management skills. Items such as awareness of the negative consequences of poor cash flow management (0.932) and performing cash flow planning (0.908) have the highest correlations. This makes them the most closely aligned with the overall skillset. Overall, the scale shows strong internal consistency, and no item needs to be removed.

4.7.3 Profit Calculation Skills Scale

The internal reliability of the Profit Calculation Skills scale is presented in this section.

Table 4.10: Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.943	0.944	4

The outcome of the internal reliability statistics test of the 4 items of the Profit Calculation Skills scale is presented in Table 4.10. The Cronbach's alpha obtained as shown in Table 9 is $\alpha=0.943$. Based on the given value, the Profit Calculation Skills scale is of acceptable internal constancy reliability. The following section discusses the outcome of the item statistics. The results of the item statistics are presented and discussed in this section.

Table 4.11: Item Statistics

	Mean	Std. Deviation	n
16. [Profit Calculation Skill] I know that profit calculation is useful in assessing the financial performance of my business.	3.21	1.502	271
17. [Profit Calculation Skill] I am confident in my ability to calculate profit accurately.	2.38	1.414	271
18. [Profit Calculation Skill] I am aware that profit calculation is essential for effective business decision-making.	2.57	1.438	271
19. [Profit Calculation Skill] I know various methods for calculating profit for my business.	2.56	1.548	271

The results of the Item Statistics for the 4 items of Profit Calculation Skills are shown in Table 4.11. The mean for Profit Calculation Skills shows that respondents recognise the usefulness of profit calculation in assessing financial performance (Mean = 3.21). However, they lack confidence in the ability to calculate profit accurately (Mean = 2.38). Awareness of the importance of profit calculation for effective decision-making is moderate (Mean = 2.57). This indicates that while some

understand its significance, many do not fully appreciate it. Knowledge of various profit calculation methods is also moderate (Mean = 2.56), suggesting that further education and training could help to improve these skills among small business owners.

Table 4.12: Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Inter-Item Correlations	0.809	0.703	0.915	0.211	1.301	0.007	4

The results of Summary Item Statistics for Inter-Item Correlations for the Profit Calculation Skill scale are presented in Table 4.12. The mean value of the inter-item correlation is $X=0.802$. The results mean the 4 items of the Profit Calculation Skill scale have acceptable correlations and internal consistency reliability. The instrument was further subjected to an Item-Total Correlation test through Item-Total Statistics and the results presented next.

Table 4.13: Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
16. [Profit Calculation Skill] I know that profit calculation is useful in assessing the financial performance of my business.	7.51	17.843	0.766	0.626	0.957
17. [Profit Calculation Skill] I am confident in calculating profit accurately.	8.34	17.291	0.895	0.862	0.917
18. [Profit Calculation Skill] I am aware that profit calculation is essential for effective business decision-making.	8.15	16.971	0.910	0.829	0.912
19. [Profit Calculation Skill] I know various methods for	8.16	16.253	0.895	0.857	0.916

calculating profit for my business.					
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The outcomes of item-total statistics for 4 items of the Profit Calculation Skills scale are presented in Table 4.13. The Corrected Item-Total Correlation indicates items related to profit calculation skills are strongly aligned with the construct, ranging from 0.766 to 0.910. Items 18: I am aware that profit calculation is essential for effective business decision-making (0.910) and item 17: I am confident in calculating profit accurately (0.895), have the highest correlations, suggesting they are particularly integral to the measurement of profit calculation skills. These high correlation values reflect strong internal consistency, indicating each item effectively contributes to the scale's overall reliability and relevance.

4.7.4 Finance Skills Needs Assessment

The internal consistency reliability test of the Finance Skills Needs Assessment scale is presented next.

Table 4.14: Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.962	0.963	3

The outcome of the internal consistency reliability test of the Finance Skills needs assessment scale is presented in Table 4.14. The result of the Cronbach's alpha is $\alpha=0.962$. The results of the Financial Skills need assessment scale are of acceptable reliability. The following section presents and discusses the outcome of the item statistics. The results of the item statistics are presented and discussed in this section.

Table 4.15: Correlations

Item Statistics			
	Mean	Std. Deviation	n
20. [Financial Skill] I can effectively compile and analyse the business's statement of income and expenditure.	2.31	1.435	271
21. [Financial Skill] I can effectively compile and analyse the business's financial position statement.	2.09	1.424	271
22. [Financial Skill] I can effectively compile and analyse the business's statement of cash flow.	2.06	1.402	271

The Item statistics of the 3 items of the Finance Skills needs assessment are illustrated in Table 4.15. The mean values for the financial skills items indicate a significant lack of confidence among respondents in their abilities to manage key financial statements, namely, Income and Expenditure Statement (Mean = 2.31), Financial Position Statement (Mean = 2.09), and Statement of Cash Flow (Mean = 2.06). The low scores on all the 3 items highlight a pressing need for improvement in financial management skills among small business owners.

Table 4.16: Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Inter-Item Correlations	0.896	0.848	0.986	0.137	1.162	0.005	3

The results of Summary Item Statistics for the Inter-Item Correlations test are presented in Table 4.16. The inter-item correlation mean of $X=0.896$ of the Finance Skills needs assessment scale is reported. The results suggest that the 3 items in the Finance Skills needs assessment scale are closely related and effectively assess the intended financial skills.

Table 4.17: Item-Total Statistics

	Scale Mean if Deleted	Scale Variance if Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
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	Item Deleted	Item Deleted			
20. [Financial Skill] I can effectively compile and analyse the business's statement of income and expenditure.	4.15	7.934	0.854	0.731	0.993
21. [Financial Skill] I can effectively compile and analyse the business's financial position statement.	4.37	7.442	0.956	0.972	0.918
22. [Financial Skill] I can effectively compile and analyse the business's statement of cash flow.	4.40	7.582	0.952	0.971	0.921

The outcome of the corrected Item-Total correlation for the 3 items Finance Skills needs assessment scale is presented in Table 4.17. The results of the Corrected Item-Total Correlation of the 3 items of the Finance Skills needs assessment scale range from 0.854 to 0.952. This indicates a strong alignment with the overall construct. Item 21, focused on the financial position statement, has the highest correlation (0.972), highlighting its significance in assessing financial skills. The high values in all three 3 items (0.854, 0.956, and 0.952) reflect excellent internal consistency, showing items effectively contribute to the scale's reliability. The summary of the instrument's item consistency reliability test is reported in the following section.

4.8 SUMMARY OF THE ITEM CONSISTENCY TEST OF THE INSTRUMENT

This section summarises the reliability and item statistics of the scale. All the scales show high internal consistency, with Cronbach's Alpha ranging between 0.943 and 0.962 across the different financial skills assessment scales. This indicates that the items in each scale were of acceptable reliability in measuring their respective constructs, making them suitable for evaluating financial skills.

Table 4.18: Rotated Factor Matrix

Descriptive Statistics									
	n	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Expense Tracking Skills	271	1,00	5,00	2,43	1,356	0,365	0,148	-1,298	0,295
Cashflow Management Skills	271	1,00	5,00	2,66	1,386	0,204	0,148	-1,298	0,295
Profit Calculation Skills	271	1,00	5,00	2,68	1,365	0,145	0,148	-1,371	0,295
Financial Skills needs	271	1,00	5,00	2,15	1,370	0,760	0,148	-0,952	0,295
Valid n (listwise)	271								

The assessment of financial skills among small business owners reveals a significant lack. Table 4.18 provides descriptive statistics for four scales that are related to financial skills. The Expense Tracking Skills has a mean value of 2.43 which is below the midpoint of 3. This suggests that participants feel they have below-average skills in tracking their expenses. The negative skewness on Expense Tracking Skills suggests that most respondents rated themselves lower on the skill, with fewer respondents giving higher ratings. Given that the mean is below the midpoint, the researcher expects slight negative skewness, meaning more respondents perceive themselves as having weaker skills.

Kurtosis indicates the concentration around the mean. A high positive kurtosis suggests that most respondents rated their skills near the mean, while a negative kurtosis would indicate more variability or extreme values. For the study, moderate kurtosis shows that most ratings are clustered around the mean, but with some outliers rating themselves higher or lower.

Cash Flow Management Skills has a mean value of 2.66 indicating that respondents rated their cash flow management skills slightly higher than expense tracking skills, but still below the midpoint. This suggests a moderate confidence in their cash flow management abilities, though generally leaning toward the lower end. The mean value is closer to 3, which is the midpoint, the distribution could be more symmetric. However, if skewness is slightly negative, it suggests more respondents rate themselves below the midpoint, with fewer respondents rating themselves highly. Positive skewness indicates that more respondents rated themselves highly. The moderate kurtosis suggests that most respondents fall near the mean. A low kurtosis value indicates more spread in responses, meaning a wider range of perceived abilities in cash flow management.

Profit Calculation Skills has a mean value of 2.68. This suggests respondents feel slightly more capable in this area as compared to expense tracking, but overall, the skill is still perceived as moderate-to-low. The low score indicates that participants feel confident in calculating profit. A positive skewness suggests that more respondents rated their profit calculation skills slightly higher than others, with fewer individuals rating themselves lower. However, A skewness close to zero indicates a relatively symmetric distribution around the mean. A moderate to low kurtosis suggests a reasonable spread in responses, where individuals do not deviate too much from the average. Higher kurtosis indicates most ratings are concentrated around the mean.

The low Financial Skills needs mean value of 2.15 reflects a significant perceived need for improvement in overall financial skills. It suggests that respondents are aware of their shortcomings. Since the mean is the lowest among the four variables, this suggests more negative skewness. This indicates a larger proportion of respondents rating themselves as having a high need for improvement in financial skills, with fewer respondents expressing lower needs. The higher kurtosis indicates that many respondents have rated themselves around the low end of the scale,

creating a peak around the mean. A lower kurtosis value indicates a broader spread, with more variability in how much respondents feel they need improvement in financial skills. The correlation analysis of the variables is discussed in the following section.

4.9 CORRELATION ANALYSIS

SPSS was used to conduct the correlation analysis. The correlation coefficient measures the relationship strength between variables (Hair et al., 2014). It ranges between numbers 0 and 1. When it is close to 0, the two measurements have a weak relationship, but when it is close to 1, the relationship between constructs is strong (Pallant, 2016). The correlation coefficient sign (+/-) shows the direction and value indicates the strength (Hair et al., 2014). The Pearson correlation coefficient measures the extent to which quantitative variables are linearly related varying from -1.0 to +1.0 (Deng et al., 2021).

A positive correlation coefficient shows an increase in one variable increasing the other (Deng et al., 2021). A correlation coefficient of 0 shows no linear relationship between the variables being studied (Pallant, 2016). The movement is random where an increase in one variable provides no movement in the other variable. A correlation coefficient of -1 indicates a perfect negative linear relationship between two variables (Pallant, 2016). When one variable increases, the other decreases in a perfectly predictable manner. Results of the correlations test among ETS, CFMS, PCS, FS, and two groups, namely, age and years the business has been in operation are presented next.

Table 4.19: Correlations

		ETS	CFMS	PCS	FS	2. Grouped age	5. Years business been in operation
Expense Tracking Skills	Pearson Correlation	--					

Cash Flow Management Skills	Pearson Correlation	0,783**	--				
	Sig. (2-tailed)	0,000					
Profit Calculation Skills	Pearson Correlation	0,778**	0,886**	--			
	Sig. (2-tailed)	0,000	0,000				
Financial Skills needs	Pearson Correlation	0,691**	0,809**	0,819**	--		
	Sig. (2-tailed)	0,000	0,000	0,000			
2. Grouped age	Pearson Correlation	-0,085	-0,114	-0,136*	-0,231**	--	
	Sig. (2-tailed)	0,165	0,061	0,025	0,000		
5. Years business been in operation	Pearson Correlation	0,177**	0,137*	0,136*	0,081	0,244**	--
	Sig. (2-tailed)	0,003	0,024	0,025	0,185	0,000	
**. Correlation is significant at the 0.01 level (2-tailed).							
*. Correlation is significant at the 0.05 level (2-tailed).							
c. Listwise n=271							

The results of the correlations test among ETS, CFMS, PCS, FS, and two groups, namely, age and years the business has been in operation are presented in Table 4.19 and explained below in the relevant sections. The Pearson correlation coefficient is a numerical measure of the direction and strength of the linear relationship between variables (Pallant, 2016). The Pearson correlation coefficients among the four measures of respondents' finance management skills are illustrated in Table 4.19 and discussed next.

4.9.1 ETS and CFMS

The correlation between Expense Tracking Skills and Cash Flow Management Skills is 0.783, showing a positive relationship. This interprets that individuals proficient in tracking expenses are likely to be skilled in managing cash flow. The Sig. (2-tailed) value of 0.000 indicates the probability correlations occurring by random chance are less than 0.001, making them highly statistically significant at the 99% confidence.

4.9.2 ETS and PCS

The correlation between Expense Tracking Skills and Profit Calculation Skills is 0.778, which is strong and positive, showing that those adept at tracking expenses

tend to have better profit calculation skills. The Sig. (2-tailed) value of 0.000 indicates the probability of the correlations occurring randomly are less than 0.001, making them highly statistically significant at the 99% confidence.

4.9.3 ETS and FS

The correlation between Expense Tracking Skills and Financial Skills is 0.691, which is moderately strong, implying that tracking expenses positively influences overall financial skills. The Sig. (2-tailed) value of 0.000 indicates the probability of the correlations occurring by chance is less than 0.001, making them highly statistically significant at the 99% confidence.

4.9.4 CFMS and PCS

The strongest correlation in the table is between Cash Flow Management Skills and Profit Calculation skills, with a coefficient of 0.886, indicating a strong relationship between these two areas of financial management. The Sig. (2-tailed) value of 0.000 indicates the probability of the correlations occurring by chance is less than 0.001, making them highly statistically significant at the 99% confidence.

4.9.5 CFMS and FS

The correlation between Cash Flow Management Skills and overall Financial Skills is 0.809, showing a strong positive relationship. The Sig. (2-tailed) value of 0.000 indicates that the probability of these correlations occurring by chance is less than 0.001, making them highly statistically significant at the 99% confidence.

4.9.6 PCS and FS

The correlation between Profit Calculation Skills and Financial Skills is 0.819, which is strong and positive, highlighting the interdependence between these two skills.

The Sig. (2-tailed) value of 0.000 indicates the probability of the correlations occurring by chance is less than 0.001, making them highly statistically significant at the 99% confidence.

4.9.7 Correlations between age and scales (ETS, CFS, PCS, and FS)

The correlation between Expense Tracking Skills, Cash Flow Management and the age group is -0.085 and -0.114 at 0.05. This indicates no meaningful relationship between the variables. The correlation between age and Profit Calculation Skills is -0.136, (significant) at 0.05. This suggests older respondents tend to have slightly lower profit calculation skills. The correlation between Financial Skills needs and grouped age is -0.231, (significant) at 0.01, meaning the older respondents tend to be confident in their overall financial skills.

4.9.8 Correlations between years the business has been in operations and scales (ETS, CFS, PCS, and FS)

The correlation between Expense Tracking Skills, Cash Flow Management and Profit Calculation Skills and the years in business operation are 0.177, 0.137, and 0.136 (significant) at 0.05. This indicates the more years a business has been operating, the better financial management skills they have. The correlation is between the years of business operation and the perceived need for financial skills improvement 0.081 (not significant). This indicates no strong relationship. In the following section, the summary of the Pearson correlation is reported.

4.10 SUMMARY OF THE PEARSON CORRELATION

All correlations for the scale are statistically significant ($p < 0.01$). The strong positive relationships among the four scales suggest proficiency in one area of financial management. For example, expense tracking is strongly linked to skills in other areas (e.g., cash flow management, profit calculation, and overall financial skills).

This indicates that improving any of these financial skills could enhance the others, emphasising the need for financial education. The correlations are highly significant ($p < 0.01$), which confirms that the relationships between the financial skills variables are not due to random chance and represent meaningful associations. This further supports the importance of these skills being interrelated. On all the scales, age seems to negatively correlate with certain financial skills, particularly profit calculation and financial skills needs. This reflects a gap in financial literacy or skills development among older respondents. Overall, years in business operation positively correlate with improved financial skills, implying that experience contributes to better management capabilities.

4.11 FACTOR ANALYSIS

Factor analysis is a statistical method that identifies relationships between variables (Hair et al., 2014). Commonalities in factor analysis represent variance observed by the common factors in the analysis. For the study, 22 items of the newly developed questionnaire were subjected to Principal Axis Factoring (PAF). PAF validated the questionnaire, and helping items were grouped to reflect theoretical constructs they intend to measure (Pallant, 2016). In the following section, the factor extraction is discussed.

4.11.1 Factor Extraction Employing the Principal Axis Factoring (PAF) and Principal Component Analysis (PCA)

Table 4.20: Nonparametric and Hypothesis Tests Summary: Gender

	Initial	PAF Extraction	PCA Extraction
7. [Expense Tracking Skill] I am aware of the importance of expense-tracking practices in my business.	0.757	0.759	0.646

	Initial	PAF Extraction	PCA Extraction
8. [Expense Tracking Skill] I know the various expense-tracking methods and tools.	0.888	0.792	0.673
9. [Expense Tracking Skill] I am confident in tracking business expenses.	0.873	0.756	0.708
10. [Expense Tracking Skill] I find tracking expenses useful for my business.	0.863	0.888	0.694
11. [Cash Flow Management Skill] I know the concept of cash flow (cash in - cash out) management.	0.748	0.613	0.641
12. [Cash Flow Management Skill] I find cash flow (cash in – cash out) management useful for my business.	0.859	0.724	0.746
13. [Cash Flow Management Skill] I am confident in my ability to effectively monitor cash flow (cash in – cash out) management.	0.845	0.772	0.778
14. [Cash Flow Management Skill] I perform cash flow planning in my business.	0.915	0.831	0.839
15. [Cash Flow Management Skill] I am aware of the negative consequences of lack of or poor cash flow (cash in – cash out) management.	0.912	0.844	0.840
16. [Profit Calculation Skill] I know that profit calculation is useful in assessing the financial performance of my business.	0.724	0.585	0.615
17. [Profit Calculation Skill] I am confident in calculating profit accurately.	0.913	0.862	0.843
18. [Profit Calculation Skill] I am aware that profit calculation is essential for effective business decision-making.	0.867	0.803	0.815
19. [Profit Calculation Skill] I know various methods for calculating profit for my business.	0.879	0.812	0.820
20. [Financial Skill] I can effectively compile and analyse the business's statement of income and expenditure.	0.865	0.854	0.805
21. [Financial Skill] I can effectively compile and analyse the business's financial position statement.	0.977	0.822	0.698
22. [Financial Skill] I can effectively compile and analyse the business's statement of cash flow.	0.978	0.820	0.711
Extraction Method:	PAF		PCA

The results of Factor Extraction Employing the Principal Axis Factoring and Principal Component Analysis is shown in Table 4.20. EFA was employed to determine patterns of correlations among the questions (Q7 to Q22) in the instrument used to assess the small business owners' finance skills in Mamelodi Township. It is recommended in the literature that factors with a higher loading of ≥ 0.30 are

significant (Hair et al., 2014). Additionally, a factor loading of 0.50 indicates adequate validity (Pallant, 2016). For the study, from the 22 items that were investigated, the communalities were appropriate with a minimum of 0.585 and a maximum of 0.888 for Principal Axis Factoring (PAF), and between 0.615 and 0.843 Principal Component Analysis (PCA) as respectively shown in Table 5.20. The Total Variance Explained is reported in the following section.

Table 4.21: Nonparametric Tests Hypothesis Tests Summary per Age Groups

Total Variance Explained			
Component	Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %
1	11.872	74.202	74.202
Extraction Method: Principal Component Analysis.			

Table 4.21 shows the outcome of the final PCA analysis of 22 item factors of tracking expense skills, managing cash flow, calculating profit, and compiling and analysing financial statements. The principal components in factor analysis are linear combinations of the original variables designed to capture the maximum variance in the data. Each component or factor explains a portion of the total variance in the dataset (Pallant, 2016). In factor analysis, the percentage of variance criterion can determine how much of the variance in the observed variables is accounted for by the factors extracted. The percentage of variance criterion is an approach that ensures practical significance for the derived factors by ensuring that they explain at least a specified amount of variance (Hair et al., 2014). The percentage of variance criterion helps in understanding the effectiveness or explanatory power of a model or factor. Furthermore, it is a key metric for assessing how well the model or factor represents the data. No absolute threshold is adopted for the percentage variance criterion. However, where information is less precise, 60% is satisfactory (Hair et al., 2014). For the study, the cumulative variance percentage is 74,202%. This indicates a significant portion of the data set's variance is captured by these components, suggesting that they provide a good summary. The data supported 1 factor component as shown in Table 4.21. This suggests that the instrument can be used

as one instrument with its four scales, namely, tracking expense skills scale, managing cash flow scale, calculating profit scale, and compiling and analysing financial statements skills scale. The following section discusses outcome of Rotated Pattern Matrix Factors.

4.11.2 The Rotated Pattern Matrix

The factor transformation matrix provides the coefficients used to transform original factors into rotated factors (Pallant, 2016). The values indicate how original factors relate to the new factors after rotation. This analysis may help to identify which skills are most strongly associated with each factor to allow for targeted interventions in specific areas. For the study, the factor loadings show various skills related to expense tracking, cash flow management, profit calculation, and financial skills needs across factors 1 and 2. The loadings indicate how strongly each item correlates with the factors. Factor loadings with values closer to 1 indicate a strong relationship while those closer to zero indicate a weak one (Hair et al., 2014).

Table 4.22: Rotated Factor Matrix

Rotated Factor Matrix ^a		
	Factor	
	1	2
7. [Expense Tracking Skill] I am aware of the importance of expense-tracking practices in my business.	0.358	0.794
8. [Expense Tracking Skill] I know the various expense-tracking methods and tools.	0.369	0.810
9. [Expense Tracking Skill] I am confident in my ability to track business expenses.	0.454	0.742
10. [Expense Tracking Skill] I find tracking expenses useful for my business.	0.331	0.882
11. [Cash Flow Management Skill] I know the concept of cash flow (cash in - cash out) management.	0.549	0.558
12. [Cash Flow Management Skill] I find cash flow (cash in – cash out) management useful for my business.	0.640	0.561
13. [Cash Flow Management Skill] I am confident in my ability to effectively monitor cash flow (cash in – cash out) management.	0.718	0.506
14. [Cash Flow Management Skill] I perform cash flow planning in my business.	0.708	0.574

Rotated Factor Matrix ^a		
	Factor	
	1	2
15. [Cash Flow Management Skill] I am aware of the negative consequences of lack of or poor cash flow (cash in – cash out) management.	0.754	0.525
16. [Profit Calculation Skill] I know that profit calculation is useful in assessing the financial performance of my business.	0.541	0.541
17. [Profit Calculation Skill] I am confident in my ability to calculate profit accurately.	0.787	0.492
18. [Profit Calculation Skill] I am aware that profit calculation is essential for effective business decision-making.	0.694	0.568
19. [Profit Calculation Skill] I know various methods for calculating profit for my business.	0.707	0.558
20. [Financial Skill] I can effectively compile and analyse the business's statement of income and expenditure.	0.823	0.419
21. [Financial Skill] I can effectively compile and analyse the business's financial position statement.	0.863	
22. [Financial Skill] I can effectively compile and analyse the business's statement of cash flow.	0.855	
Extraction Method:	Principal Axis	Factoring.
Rotation Method: Varimax with Kaiser Normalization.		
a. Rotation converged in 3 iterations.		

Results of the Rotated Factor Matrix and Factor Transformation Matrix are shown in Table 4.22, which shows rotated factor loadings extracted using the Principal Axis Factoring (PAF). PAF is used in statistical analysis to identify underlying relationships between variables. According to Hair et al. (2014), a rotated factor matrix shows the loading of each variable on the extracted factors after rotation. The results of the factor models are discussed in the following section.

4.11.2.1 One-factor model

In the one-factor model, all the items or questions in the following scales, namely, the Cash Flow Management Skill scale, Profit Calculation Skill scale, and Financial Skill scale loaded well above the minimum mean value of 0.5 except the items or questions in the Expense Tracking Skill scale which all loaded below the minimum acceptable mean value of $X = 0.5$ as shown in Table 4.23.

Table 4.23: Factor Transformation Matrix

Factor	1	2
1	0.749	0.663
2	-0.663	0.749
Extraction Method:	Principal Axis	Factoring.
Rotation Method: Varimax with Kaiser Normalization.		

4.11.2.2 Two-factor model

In the two-factor model shown in Table 4.23, all the items or questions in the following scales, namely the Expense Tracking Skill scale, Cash Flow Management Skill scale, and Profit Calculation Skill scale loaded well above the minimum mean value of 0.5 except the items or questions in the Financial Skill scale which all loaded below the minimum acceptable mean value of $X = 0.5$ as shown in Table 4.23.

4.12. GROUP ANALYSIS

The results of the group analysis, including Gender, Age, Nature of the business, registration with the City of Tshwane, Years the business has been in operation, and Position/role in the business are presented below, starting with gender.

4.12.1 Gender

The gender group was divided into male and female.

Table 4.24: Non-parametric and Hypothesis Tests Summary: Gender

		Gender					
Null Hypothesis		Male	Female	Test		Sig.a,b	Decision
The medians of 7.	Mean	2,88	2,25	Independent-Samples Test	Median	<0,001c	Reject the null hypothesis.
The distribution of 7	n	136	134	Independent-Samples Whitney U Test	Mann-	0,000	Reject the null hypothesis.

		Gender					
Null Hypothesis		Male	Female	Test		Sig.a,b	Decision
The medians of 8	Mean	2,73	2,09	Independent-Samples Test	Median	<0,001c	Reject the null hypothesis.
The distribution of 8	n	136	134	Independent-Samples Whitney U Test	Mann-	0,001	Reject the null hypothesis.
The medians of 9.	Mean	2,54	1,87	Independent-Samples Test	Median	<0,001c	Reject the null hypothesis.
The distribution of 9	n	136	134	Independent-Samples Whitney U Test	Mann-	0,000	Reject the null hypothesis.
The medians of 10	Mean	2,97	2,10	Independent-Samples Test	Median	<0,001c	Reject the null hypothesis.
The distribution of 10	n	136	134	Independent-Samples Whitney U Test	Mann-	0,000	Reject the null hypothesis.
The medians of 11.	Mean	3,39	2,67	Independent-Samples Test	Median	<0,001c	Reject the null hypothesis.
The distribution of 11	n	136	134	Independent-Samples Whitney U Test	Mann-	0,000	Reject the null hypothesis.
The medians of 12	Mean	3,29	2,36	Independent-Samples Test	Median	<0,001c	Reject the null hypothesis.
The distribution of 12	n	136	134	Independent-Samples Whitney U Test	Mann-	0,000	Reject the null hypothesis.
The medians of 13	Mean	2,66	1,88	Independent-Samples Test	Median	<0,001c	Reject the null hypothesis.
The distribution of 13	n	136	134	Independent-Samples Whitney U Test	Mann-	0,000	Reject the null hypothesis.
The medians of 14	Mean	3,07	2,07	Independent-Samples Test	Median	<0,001c	Reject the null hypothesis.
The distribution of 14	n	136	134	Independent-Samples Whitney U Test	Mann-	0,000	Reject the null hypothesis.
The medians of 15	Mean	3,15	2,11	Independent-Samples Test	Median	<0,001c	Reject the null hypothesis.
The distribution of 15	n	136	134	Independent-Samples Whitney U Test	Mann-	0,000	Reject the null hypothesis.
The medians of 16	Mean	3,43	2,98	Independent-Samples Test	Median	0,007c	Reject the null hypothesis.
The distribution of 16	n	136	134	Independent-Samples Whitney U Test	Mann-	0,008	Reject the null hypothesis.
The medians of 17.	Mean	2,74	2,02	Independent-Samples Test	Median	<0,001c	Reject the null hypothesis.

		Gender					
Null Hypothesis		Male	Female	Test		Sig.a,b	Decision
The distribution of 17	n	136	134	Independent-Samples Mann-Whitney U Test		0,000	Reject the null hypothesis.
The medians of 18	Mean	2,93	2,21	Independent-Samples Median Test		0,002c	Reject the null hypothesis.
The distribution of 18	n	136	134	Independent-Samples Mann-Whitney U Test		0,000	Reject the null hypothesis.
The medians of 19	Mean	2,99	2,13	Independent-Samples Median Test		<0,001c	Reject the null hypothesis.
The distribution of 19	n	136	134	Independent-Samples Mann-Whitney U Test		0,000	Reject the null hypothesis.
The medians of 20	Mean	2,62	2,01	Independent-Samples Median Test		0,002c	Reject the null hypothesis.
The distribution of 20	n	136	134	Independent-Samples Mann-Whitney U Test		0,000	Reject the null hypothesis.
The medians of 21	Mean	2,37	1,81	Independent-Samples Median Test		<0,001c	Reject the null hypothesis.
The distribution of 21	n	136	134	Independent-Samples Mann-Whitney U Test		0,000	Reject the null hypothesis.
The medians of 22	Mean	2,31	1,81	Independent-Samples Median Test		<0,001c	Reject the null hypothesis.
The distribution of 22	n	136	134	Independent-Samples Mann-Whitney U Test		0,001	Reject the null hypothesis.

The results of the non-parametric and hypothesis test summary per gender (Male and Female) on ETS, CFMS, and PCS are shown in Table 4.25 and explained in this section. The Independent-Samples Median and the Mann-Whitney U Tests were used to assess gender differences. The mean values for males range between 3,43 and 2,31 as shown in Table 4.24 are higher than the mean values for females, which range between 2,98 and 1,81. In all the cases, the null hypothesis is rejected in all tests (The medians (Independent-Samples Median Test) and the distribution (Independent-Samples Mann-Whitney U Test). This means a statistically significant difference between males and females for all the variables listed. The consistent rejection of null hypothesis suggests gender may be used to predict FS among business owners.

4.12.2. Age

The participants were divided into four groups, namely 18-25; 26-35; 36-45; and 46+ as shown in Table 4.25 and discussed next.

Table 4.25: Non-parametric Tests Hypothesis Test Summary per Age Groups

Null Hypothesis		Age				Test	Sig.	Decision
		18-25	26-35	36-45	46+			
The medians of 7.	Mea n	3,55	2,51	2,50	2,77	Independent-Samples Median Test	0,41 1	Retain the null hypothesis.
The distribution of 7	n	11	113	125	22	Independent-Samples Mann-Whitney U Test	.c	Unable to compute.
The medians of 8	Mea n	3,55	2,48	2,30	2,05	Independent-Samples Median Test	0,03 8	Reject the null hypothesis.
The distribution of 8	n	11	113	125	22	Independent-Samples Mann-Whitney U Test	.c	Unable to compute.
The medians of 9.	Mea n	3,18	2,27	2,05	2,18	Independent-Samples Median Test	0,23 7	Retain the null hypothesis.
The distribution of 9	n	11	113	125	22	Independent-Samples Mann-Whitney U Test	.c	Unable to compute.
The medians of 10	Mea n	3,55	2,50	2,36	3,18	Independent-Samples Median Test	0,02 8	Reject the null hypothesis.
The distribution of 10	n	11	113	125	22	Independent-Samples Mann-Whitney U Test	.c	Unable to compute.
The medians of 11.	Mea n	3,64	3,10	2,86	3,27	Independent-Samples Median Test	0,79 4	Retain the null hypothesis.
The distribution of 11	n	11	113	125	22	Independent-Samples Mann-Whitney U Test	.c	Unable to compute.
The medians of 12	Mea n	3,73	2,81	2,71	3,05	Independent-Samples Median Test	0,53 5	Retain the null hypothesis.
The distribution of 12	n	11	113	125	22	Independent-Samples Mann-Whitney U Test	.c	Unable to compute.
The medians of 13	Mea n	3,36	2,40	2,13	1,86	Independent-Samples Median Test	0,04 2	Reject the null hypothesis.
The distribution of 13	n	11	113	125	22	Independent-Samples Mann-Whitney U Test	.c	Unable to compute.
The medians of 14	Mea n	3,55	2,67	2,42	2,36	Independent-Samples Median Test	0,21 1	Retain the null hypothesis.

		Age						
Null Hypothesis		18-25	26-35	36-45	46+	Test	Sig.	Decision
The distribution of 14	n	11	113	125	22	Independent-Samples Mann-Whitney U Test	.c	Unable to compute.
The medians of 15	Mea n	3,82	2,65	2,54	2,41	Independent-Samples Median Test	0,51 9	Retain the null hypothesis.
The distribution of 15	n	11	113	125	22	Independent-Samples Mann-Whitney U Test	.c	Unable to compute.
The medians of 16	Mea n	3,64	3,32	2,98	3,77	Independent-Samples Median Test	0,50 9	Retain the null hypothesis.
The distribution of 16	n	11	113	125	22	Independent-Samples Mann-Whitney U Test	.c	Unable to compute.
The medians of 17.	Mea n	3,55	2,57	2,18	2,00	Independent-Samples Median Test	0,00 2	Reject the null hypothesis.
The distribution of 17	n	11	113	125	22	Independent-Samples Mann-Whitney U Test	.c	Unable to compute.
The medians of 18	Mea n	3,55	2,59	2,46	2,55	Independent-Samples Median Test	0,62 4	Retain the null hypothesis.
The distribution of 18	n	11	113	125	22	Independent-Samples Mann-Whitney U Test	.c	Unable to compute.
The medians of 19	Mea n	3,45	2,78	2,33	2,27	Independent-Samples Median Test	0,00 6	Reject the null hypothesis.
The distribution of 19	n	11	113	125	22	Independent-Samples Mann-Whitney U Test	.c	Unable to compute.
The medians of 20	Mea n	3,45	2,50	2,17	1,64	Independent-Samples Median Test	0,00 1	Reject the null hypothesis.
The distribution of 20	n	11	113	125	22	Independent-Samples Mann-Whitney U Test	.c	Unable to compute.
The medians of 21	Mea n	3,18	2,30	1,90	1,55	Independent-Samples Median Test	0,52 6	Retain the null hypothesis.
The distribution of 21	n	11	113	125	22	Independent-Samples Mann-Whitney U Test	.c	Unable to compute.
The medians of 22	Mea n	3,18	2,26	1,87	1,55	Independent-Samples Median Test	0,45 6	Retain the null hypothesis.
The distribution of 22	n	11	113	125	22	Independent-Samples Mann-Whitney U Test	.c	Unable to compute.

The results of hypothesis tests comparing four age groups (18-25, 26-35, 36-45, and 46+) on ETS, CFMS, and PCS are in Table 4.25 and explained in this section. The

higher mean values indicate higher skill while a low mean value indicates a low skill. Table 4.25 illustrates that the younger age group (18-25) generally has higher mean values across most measures with mean values ranging between 3,82 and 3.18, indicating potentially better performance or higher self-rated skills compared to older age groups with mean values between 3.77 and 1.55. The older age groups report lower skill indicating mean values of between 3,77 and 1.55. The Independent-Samples Median and the Mann-Whitney U Test were performed for assessment. The decision to reject the null hypothesis indicates that there are statistically significant differences between the age groups for the specific variable while a decision to retain null hypothesis indicates no significant differences between the age groups were found. The analysis reveals that for some variables (such as 8, 10, 13, 17, 19, and 20), age differs significantly in their medians. However, for other variables, no significant age-related differences were found. Owing to the uneven distribution of sample among the age categories, the Mann-Whitney U Test results could not be computed. Therefore, the interpretation relies solely on the Median Test.

4.12.3. Nature of the business

The nature of the business was divided into products and services, as shown in Table 4.26.

Table 4.26: Non-parametric Tests Hypothesis Test Summary: Nature of Business

Null Hypothesis		Nature		Test	Sig.a,b	Decision
		Products	Services			
The medians of 7.	Mean	2,62	2,33	Independent-Samples Median Test	0,030 ^c	Reject the null hypothesis.
The distribution of 7	n	223	48	Independent-Samples Mann-Whitney U Test	0,307	Retain the null hypothesis.
The medians of 8	Mean	2,51	1,92	Independent-Samples Median Test	0,011 ^c	Reject the null hypothesis.

		Nature					
Null Hypothesis		Products	Services	Test		Sig.a,b	Decision
The distribution of 8	n	223	48	Independent-Samples	Mann-Whitney U Test	0,010	Reject the null hypothesis.
The medians of 9.	Mean	2,30	1,71	Independent-Samples	Median Test	0,046 ^c	Reject the null hypothesis.
The distribution of 9	n	223	48	Independent-Samples	Mann-Whitney U Test	0,004	Reject the null hypothesis.
The medians of 10	Mean	2,60	2,25	Independent-Samples	Median Test	0,489 ^c	Retain the null hypothesis.
The distribution of 10	n	223	48	Independent-Samples	Mann-Whitney U Test	0,190	Retain the null hypothesis.
The medians of 11.	Mean	3,12	2,58	Independent-Samples	Median Test	0,980 ^c	Retain the null hypothesis.
The distribution of 11	n	223	48	Independent-Samples	Mann-Whitney U Test	0,035	Reject the null hypothesis.
The medians of 12	Mean	2,84	2,75	Independent-Samples	Median Test	0,892 ^c	Retain the null hypothesis.
The distribution of 12	n	223	48	Independent-Samples	Mann-Whitney U Test	0,816	Retain the null hypothesis.
The medians of 13	Mean	2,38	1,75	Independent-Samples	Median Test	0,013 ^c	Reject the null hypothesis.
The distribution of 13	n	223	48	Independent-Samples	Mann-Whitney U Test	0,007	Reject the null hypothesis.
The medians of 14	Mean	2,63	2,27	Independent-Samples	Median Test	0,653 ^c	Retain the null hypothesis.
The distribution of 14	n	223	48	Independent-Samples	Mann-Whitney U Test	0,103	Retain the null hypothesis.
The medians of 15	Mean	2,64	2,58	Independent-Samples	Median Test	0,941 ^c	Retain the null hypothesis.
The distribution of 15	n	223	48	Independent-Samples	Mann-Whitney U Test	0,801	Retain the null hypothesis.

		Nature				
Null Hypothesis		Products	Services	Test	Sig.a,b	Decision
The medians of 16	Mean	3,25	3,04	Independent-Samples Median Test	0,212 ^c	Retain the null hypothesis.
The distribution of 16	n	223	48	Independent-Samples Mann-Whitney U Test	0,676	Retain the null hypothesis.
The medians of 17.	Mean	2,40	2,27	Independent-Samples Median Test	0,613 ^c	Retain the null hypothesis.
The distribution of 17	n	223	48	Independent-Samples Mann-Whitney U Test	0,359	Retain the null hypothesis.
The medians of 18	Mean	2,54	2,69	Independent-Samples Median Test	0,245 ^c	Retain the null hypothesis.
The distribution of 18	n	223	48	Independent-Samples Mann-Whitney U Test	0,660	Retain the null hypothesis.
The medians of 19	Mean	2,60	2,38	Independent-Samples Median Test	0,238 ^c	Retain the null hypothesis.
The distribution of 19	n	223	48	Independent-Samples Mann-Whitney U Test	0,315	Retain the null hypothesis.
The medians of 20	Mean	2,41	1,85	Independent-Samples Median Test	0,095 ^c	Retain the null hypothesis.
The distribution of 20	n	223	48	Independent-Samples Mann-Whitney U Test	0,005	Reject the null hypothesis.
The medians of 21	Mean	2,17	1,71	Independent-Samples Median Test	0,030 ^c	Reject the null hypothesis.
The distribution of 21	n	223	48	Independent-Samples Mann-Whitney U Test	0,024	Reject the null hypothesis.
The medians of 22	Mean	2,13	1,71	Independent-Samples Median Test	0,052 ^c	Retain the null hypothesis.
The distribution of 22	n	223	48	Independent-Samples Mann-Whitney U Test	0,038	Reject the null hypothesis.

Table 4.26 presents hypothesis tests comparing two types of groups based on "Nature" i.e., Products and Services, across ETS, CFMS, and PCS. The two tests applied are the Independent-Samples Median and Mann-Whitney U Test. The analysis highlights differences in the financial skills between businesses that offer products and those that offer services. Businesses offering products tend to score higher on various measures with mean values of between 3.25 and 213, while those offering services are between 2.75 and 1,71. Rejecting the null hypothesis indicates significant differences between the groups while the decision to retain the null hypothesis indicates no significant difference between the groups. The results show that for several variables (7, 8, 9, 13, 21, and 22), there are significant differences between Products and Services, particularly in terms of their medians and distributions. However, for other variables (10, 11, 12, 14 to 20), null hypothesis is retained, indicating no significant differences.

4.12.4. Registered with the City of Tshwane

The business registered with the City of Tshwane was divided into two: (Yes, No) as shown in Table 4.27 and discussed.

Table 4.27: Non-parametric Tests Hypothesis Test Summary: Registered with the city of Tshwane

Null Hypothesis		Registered with the Local Authority		Test	Sig.a,b	Decision
		Yes	No			
The medians of 7.	Mean	2,58	1,00	Independent-Samples Median Test	0,541 ^c	Retain the null hypothesis.
The distribution of 7	n	269	2	Independent-Samples Mann-Whitney U Test	0,106	Retain the null hypothesis.
The medians of 8	Mean	2,42	1,00	Independent-Samples Median Test	0,534 ^c	Retain the null hypothesis.
The distribution of 8	n	269	2	Independent-Samples Mann-Whitney U Test	0,161	Retain the null hypothesis.

		Registered with the Local Authority				
Null Hypothesis		Yes	No	Test	Sig.a,b	Decision
The medians of 9.	Mean	2,21	1,00	Independent-Samples Median Test	0,734 ^c	Retain the null hypothesis.
The distribution of 9	n	269	2	Independent-Samples Mann-Whitney U Test	0,178	Retain the null hypothesis.
The medians of 10	Mean	2,55	1,00	Independent-Samples Median Test	0,527 ^c	Retain the null hypothesis.
The distribution of 10	n	269	2	Independent-Samples Mann-Whitney U Test	0,124	Retain the null hypothesis.
The medians of 11.	Mean	3,03	2,50	Independent-Samples Median Test	0,639 ^c	Retain the null hypothesis.
The distribution of 11	n	269	2	Independent-Samples Mann-Whitney U Test	0,499	Retain the null hypothesis.
The medians of 12	Mean	2,83	1,50	Independent-Samples Median Test	0,589 ^c	Retain the null hypothesis.
The distribution of 12	n	269	2	Independent-Samples Mann-Whitney U Test	0,255	Retain the null hypothesis.
The medians of 13	Mean	2,28	1,00	Independent-Samples Median Test	0,711 ^c	Retain the null hypothesis.
The distribution of 13	n	269	2	Independent-Samples Mann-Whitney U Test	0,169	Retain the null hypothesis.
The medians of 14	Mean	2,57	2,00	Independent-Samples Median Test	0,481 ^c	Retain the null hypothesis.
The distribution of 14	n	269	2	Independent-Samples Mann-Whitney U Test	0,566	Retain the null hypothesis.
The medians of 15	Mean	2,64	2,00	Independent-Samples Median Test	0,488 ^c	Retain the null hypothesis.
The distribution of 15	n	269	2	Independent-Samples Mann-Whitney U Test	0,540	Retain the null hypothesis.
The medians of 16	Mean	3,22	2,00	Independent-Samples Median Test	0,846 ^c	Retain the null hypothesis.

		Registered with the Local Authority				
Null Hypothesis		Yes	No	Test	Sig.a,b	Decision
The distribution of 16	n	269	2	Independent-Samples Mann-Whitney U Test	0,191	Retain the null hypothesis.
The medians of 17.	Mean	2,38	2,00	Independent-Samples Median Test	0,589 ^c	Retain the null hypothesis.
The distribution of 17	n	269	2	Independent-Samples Mann-Whitney U Test	0,692	Retain the null hypothesis.
The medians of 18	Mean	2,57	2,00	Independent-Samples Median Test	0,521 ^c	Retain the null hypothesis.
The distribution of 18	n	269	2	Independent-Samples Mann-Whitney U Test	0,558	Retain the null hypothesis.
The medians of 19	Mean	2,56	2,00	Independent-Samples Median Test	0,507 ^c	Retain the null hypothesis.
The distribution of 19	n	269	2	Independent-Samples Mann-Whitney U Test	0,576	Retain the null hypothesis.
The medians of 20	Mean	2,32	1,00	Independent-Samples Median Test	0,645 ^c	Retain the null hypothesis.
The distribution of 20	n	269	2	Independent-Samples Mann-Whitney U Test	0,163	Retain the null hypothesis.
The medians of 21	Mean	2,10	1,00	Independent-Samples Median Test	0,582 ^c	Retain the null hypothesis.
The distribution of 21	n	269	2	Independent-Samples Mann-Whitney U Test	0,230	Retain the null hypothesis.
The medians of 22	Mean	2,07	1,00	Independent-Samples Median Test	0,610 ^c	Retain the null hypothesis.
The distribution of 22	n	269	2	Independent-Samples Mann-Whitney U Test	0,242	Retain the null hypothesis.

Table 4.27 presents the results of hypothesis testing on whether registration with the local authority affects ETS, CFMS and PCS. The groups compared are Yes

(registered) and No (not registered), with 269 respondents in the "Yes" group and only 2 in the "No" group. There are no significant differences between individuals who are registered with the local authority and those who are not across all variables analysed. However, the large imbalance in sample sizes between the two groups is because the study was only centred on businesses that were registered.

4.12.5. Years in business operation

The years in business operation were divided into four, namely less than 1 year, 1-3 years, 4-6 years, and 7+ years, as shown in Table 4.28 and discussed below.

Table 4.28: Non-parametric Tests Hypothesis Test Summary: Years business has been in Operation

Null Hypothesis		Years business has been in operation				Test	Sig.a,b	Decision
		Less than 1 Year	1-3 Years	4-6 Years	7+Years			
The medians of 7.	Mean	1,85	2,52	2,57	2,83	Independent-Samples Median Test	0,561	Retain the null hypothesis.
The distribution of 7	n	13	129	65	64	Independent-Samples Mann-Whitney U Test	. ^c	Unable to compute.
The medians of 8	Mean	1,54	2,40	2,20	2,80	Independent-Samples Median Test	0,128	Retain the null hypothesis.
The distribution of 8	n	13	129	65	64	Independent-Samples Mann-Whitney U Test	. ^c	Unable to compute.
The medians of 9.	Mean	1,15	2,10	2,05	2,77	Independent-Samples Median Test	0,016	Reject the null hypothesis.
The distribution of 9	n	13	129	65	64	Independent-Samples Mann-Whitney U Test	. ^c	Unable to compute.

		Years business has been in operation						
Null Hypothesis		Less than 1 Year	1-3 Years	4-6 Years	7+Years	Test	Sig.a,b	Decision
The medians of 10	Mean	1,31	2,57	2,15	3,11	Independent-Samples Median Test	0,014	Reject the null hypothesis.
The distribution of 10	n	13	129	65	64	Independent-Samples Mann-Whitney U Test	. ^c	Unable to compute.
The medians of 11.	Mean	2,08	3,05	3,15	3,03	Independent-Samples Median Test	0,009	Reject the null hypothesis.
The distribution of 11	n	13	129	65	64	Independent-Samples Mann-Whitney U Test	. ^c	Unable to compute.
The medians of 12	Mean	2,00	2,78	2,86	3,05	Independent-Samples Median Test	0,612	Retain the null hypothesis.
The distribution of 12	n	13	129	65	64	Independent-Samples Mann-Whitney U Test	. ^c	Unable to compute.
The medians of 13	Mean	1,69	2,19	2,20	2,61	Independent-Samples Median Test	0,293	Retain the null hypothesis.
The distribution of 13	n	13	129	65	64	Independent-Samples Mann-Whitney U Test	. ^c	Unable to compute.
The medians of 14	Mean	1,62	2,48	2,58	2,92	Independent-Samples Median Test	0,320	Retain the null hypothesis.
The distribution of 14	n	13	129	65	64	Independent-Samples Mann-Whitney U Test	. ^c	Unable to compute.
The medians of 15	Mean	1,54	2,58	2,55	3,03	Independent-Samples Median Test	0,400	Retain the null hypothesis.
The distribution of 15	n	13	129	65	64	Independent-Samples Mann-Whitney U Test	. ^c	Unable to compute.

		Years business has been in operation						
Null Hypothesis		Less than 1 Year	1-3 Years	4-6 Years	7+Years	Test	Sig.a,b	Decision
The medians of 16	Mean	2,69	3,09	3,09	3,67	Independent-Samples Median Test	0,173	Retain the null hypothesis.
The distribution of 16	n	13	129	65	64	Independent-Samples Mann-Whitney U Test	. ^c	Unable to compute.
The medians of 17.	Mean	1,54	2,43	2,29	2,53	Independent-Samples Median Test	0,196	Retain the null hypothesis.
The distribution of 17	n	13	129	65	64	Independent-Samples Mann-Whitney U Test	. ^c	Unable to compute.
The medians of 18	Mean	1,54	2,53	2,46	2,97	Independent-Samples Median Test	0,247	Retain the null hypothesis.
The distribution of 18	n	13	129	65	64	Independent-Samples Mann-Whitney U Test	. ^c	Unable to compute.
The medians of 19	Mean	1,62	2,58	2,43	2,83	Independent-Samples Median Test	0,235	Retain the null hypothesis.
The distribution of 19	n	13	129	65	64	Independent-Samples Mann-Whitney U Test	. ^c	Unable to compute.
The medians of 20	Mean	1,38	2,35	2,29	2,45	Independent-Samples Median Test	0,531	Retain the null hypothesis.
The distribution of 20	n	13	129	65	64	Independent-Samples Mann-Whitney U Test	. ^c	Unable to compute.
The medians of 21	Mean	1,23	2,12	2,14	2,16	Independent-Samples Median Test	0,097	Retain the null hypothesis.
The distribution of 21	n	13	129	65	64	Independent-Samples Mann-Whitney U Test	. ^c	Unable to compute.

		Years business has been in operation						
Null Hypothesis		Less than 1 Year	1-3 Years	4-6 Years	7+Years	Test	Sig.a,b	Decision
The medians of 22	Mean	1,23	2,05	2,14	2,16	Independent-Samples Median Test	0,071	Retain the null hypothesis.
The distribution of 22	n	13	129	65	64	Independent-Samples Mann-Whitney U Test	. ^c	Unable to compute.

Table 4.28 presents the results of hypothesis testing on whether years in business affect ETS, CFMS and PCS. The groups compared are based on the number of years a business has been operating: Less than 1 Year, 1-3 Years, 4-6 Years, and 7+ Years. Significant differences were found for variables 9, 10, and 11 based on years in operation has been in operation, indicating that older businesses tend to score higher on these variables. However, for most other variables, no significant differences were found, and the inability to compute the Mann-Whitney U test further limits the analysis.

4.12.6. Position/role in the business

The position/role of the business was divided into two, namely owner/manager and employee as shown in Table 4.29 and discussed next.

Table 4.29: Nonparametric Tests Hypothesis Test Summary: Position/role in the business

		Position/role in the business				
Null Hypothesis		Owner/Manager	Employee	Test	Sig.a,b	Decision
The medians of 7.	Mean	2,57	3,00	Independent-Samples Median Test	0,944 ^c	Retain the null hypothesis.
The distribution of 7	n	270	1	Independent-Samples Mann-Whitney U Test	0,819 ^d	Retain the null hypothesis.

		Position/role in the business				
Null Hypothesis		Owner/Manager	Employee	Test	Sig.a,b	Decision
The medians of 8	Mean	2,40	3,00	Independent-Samples Median Test	0,950 ^c	Retain the null hypothesis.
The distribution of 8	n	270	1	Independent-Samples Mann-Whitney U Test	0,804 ^d	Retain the null hypothesis.
The medians of 9.	Mean	2,20	3,00	Independent-Samples Median Test	0,779 ^c	Retain the null hypothesis.
The distribution of 9	n	270	1	Independent-Samples Mann-Whitney U Test	0,627 ^d	Retain the null hypothesis.
The medians of 10	Mean	2,54	2,00	Independent-Samples Median Test	0,956 ^c	Retain the null hypothesis.
The distribution of 10	n	270	1	Independent-Samples Mann-Whitney U Test	0,930 ^d	Retain the null hypothesis.
The medians of 11.	Mean	3,03	3,00	Independent-Samples Median Test	0,289 ^c	Retain the null hypothesis.
The distribution of 11	n	270	1	Independent-Samples Mann-Whitney U Test	0,797 ^d	Retain the null hypothesis.
The medians of 12	Mean	2,82	3,00	Independent-Samples Median Test	0,902 ^c	Retain the null hypothesis.
The distribution of 12	n	270	1	Independent-Samples Mann-Whitney U Test	1,000 ^d	Retain the null hypothesis.
The medians of 13	Mean	2,26	4,00	Independent-Samples Median Test	0,798 ^c	Retain the null hypothesis.
The distribution of 13	n	270	1	Independent-Samples Mann-Whitney U Test	0,369 ^d	Retain the null hypothesis.
The medians of 14	Mean	2,57	2,00	Independent-Samples Median Test	0,997 ^c	Retain the null hypothesis.
The distribution of 14	n	270	1	Independent-Samples Mann-Whitney U Test	0,945 ^d	Retain the null hypothesis.
The medians of 15	Mean	2,63	2,00	Independent-Samples Median Test	0,991 ^c	Retain the null hypothesis.

		Position/role in the business				
Null Hypothesis		Owner/Manager	Employee	Test	Sig.a,b	Decision
The distribution of 15	n	270	1	Independent-Samples Mann-Whitney U Test	0,863 ^d	Retain the null hypothesis.
The medians of 16	Mean	3,21	3,00	Independent-Samples Median Test	0,442 ^c	Retain the null hypothesis.
The distribution of 16	n	270	1	Independent-Samples Mann-Whitney U Test	0,731 ^d	Retain the null hypothesis.
The medians of 17.	Mean	2,38	2,00	Independent-Samples Median Test	0,902 ^c	Retain the null hypothesis.
The distribution of 17	n	270	1	Independent-Samples Mann-Whitney U Test	0,996 ^d	Retain the null hypothesis.
The medians of 18	Mean	2,57	2,00	Independent-Samples Median Test	0,962 ^c	Retain the null hypothesis.
The distribution of 18	n	270	1	Independent-Samples Mann-Whitney U Test	0,878 ^d	Retain the null hypothesis.
The medians of 19	Mean	2,56	3,00	Independent-Samples Median Test	0,973 ^c	Retain the null hypothesis.
The distribution of 19	n	270	1	Independent-Samples Mann-Whitney U Test	0,871 ^d	Retain the null hypothesis.
The medians of 20	Mean	2,31	3,00	Independent-Samples Median Test	0,854 ^c	Retain the null hypothesis.
The distribution of 20	n	270	1	Independent-Samples Mann-Whitney U Test	0,694 ^d	Retain the null hypothesis.
The medians of 21	Mean	2,09	3,00	Independent-Samples Median Test	0,908 ^c	Retain the null hypothesis.
The distribution of 21	n	270	1	Independent-Samples Mann-Whitney U Test	0,561 ^d	Retain the null hypothesis.
The medians of 22	Mean	2,06	3,00	Independent-Samples Median Test	0,884 ^c	Retain the null hypothesis.
The distribution of 22	n	270	1	Independent-Samples Mann-Whitney U Test	0,561 ^d	Retain the null hypothesis.

Table 4.29 presents the results of hypothesis testing on whether the position or role in the business (Owner/Manager vs. Employee) affects ETS, CFMS and PCS. This study analysed whether there are differences between Owners/Managers and Employees across the variables. The results showed no significant differences between the two groups for all variables. The Independent-Samples Median and the Mann-Whitney U Test retained the null hypothesis, meaning there was no statistical evidence to suggest that Owners/Managers and Employees differ significantly in their responses.

4.13 CHAPTER SUMMARY

Before the data analysis, the sample adequacy and significance tests were conducted. This was done using the Kaiser-Meyer-Olkin (KMO) and Bartlett's Test of Sphericity. The sample was large enough and significant to proceed with the statistical analysis. The internal consistency tests of the instrument were conducted through Cronbach's alpha coefficient test and various correlation tests such as Item Statistics, Summary Item Statistics, and Item-Total Statistics. Nunnally's rule of thumb for Cronbach's alpha in quantitative measurement is 0.70 (Pallant, 2016). However, a Cronbach's alpha of 0.60 is still acceptable if the scale has fewer items. All the measurement scales of the instrument were found to be of sufficient reliability. The factor analysis was also conducted, and a one-factor model was supported. All items of the newly developed questionnaire were subjected to Principal Axis Factoring (PAF). PAF was designed to validate the questionnaire, helping to ensure that items were grouped in a way that reflects the theoretical constructs they are intended to measure. All the scales loaded well above the minimum mean value of 0.5 indicating that all the variables in the instrument were related.

CHAPTER 5: CONCLUSIONS, RECOMMENDATIONS, AND LIMITATIONS.

5.1 INTRODUCTION

This chapter presents the concluding remarks of the study, discussing the key findings on the research objectives set at the beginning of the study. It also reflects on the implications of the results on the literature, providing recommendations for policy and future research. Additionally, the chapter outlines the delimitations and limitations encountered during the study, which may have influenced the findings. By bringing together these elements, this chapter aims to offer a comprehensive overview of the study's contributions, while also acknowledging areas where future investigation is warranted.

The purpose, objectives, and hypotheses in Chapter 1 are revisited and presented for the reader's convenience.

5.2 PURPOSE, OBJECTIVES AND HYPOTHESES OF THE STUDY

5.2.1 Purpose

The purpose of this study was to assess the financial management skills of spaza shop owners in Mamelodi Township, South Africa. The study aimed to evaluate how effectively these entrepreneurs practice key financial skills, namely, expense tracking, cash flow management, profit calculation, and identifying financial skills needs. By understanding the current level of financial skills among spaza shop owners, the study sought to highlight existing gaps and challenges that may affect business sustainability and growth. The findings were intended to inform the development of targeted support interventions that may enhance their financial capability, long-term viability and ultimately help them formalise their informal businesses. The next section revisits the research objectives and hypotheses.

5.2.2 Objectives

- To assess small business owners' Expense Tracking Skills (ETS).
- To assess small business owners' Cash Flow Management Skills (CFMS).
- To assess small business owners' Profit Calculation Skills (PCS).
- To assess small business owners' Financial Skills (FS) needs.

5.2.3 Hypotheses

H1₀: Small business owners lack the skills to track business expenses.

H1₁: Small business owners have the skills to track business expenses.

H2₀: Small business owners lack the skills to manage business cash flow.

H2₁: Small business owners have the skills to manage business cash flow.

H3₀: Small business owners have the skills to calculate business profit.

H3₁: Small business owners have the skills to calculate business profit.

H4₀: Small business owners lack the skills to compile and analyse financial statements.

H4₁: Small business owners have the skills to compile and analyse financial statements.

The foregoing hypotheses and objectives give a structured framework for assessing finance management skills. By addressing these hypotheses through defined objectives, this study aimed to generate evidence-based conclusions. The subsequent section discusses the results of the study.

5.3 DISCUSSION OF THE RESULTS OF THE STUDY

The study examined four constructs: expense tracking skills, cash flow management skills, profit calculation skills, and financial skills needs. All four research objectives for the study were achieved using a custom-developed questionnaire tailored to the informal sector context. The findings provided insight into both the perceived importance of finance management skills and the practical shortcomings in applying them, paving the way for practical interventions and policy development. In the following section, key findings are discussed.

5.3.1 Key Findings and Interpretation

The key outcome of the study was the recognition among spaza shop owners of the importance of financial management skills. The results revealed that small business owners demonstrate a moderate understanding of tracking expenses, cash flow management and profit calculation. However, there are significant gaps in confidence and application of these skills. The results indicate that spaza shop owners know the importance of financial management practices but lack confidence in effective implementation. Similarly, while they recognise the value of profit calculation for decision-making, their ability to apply profit calculation methods accurately is limited. Additionally, the results highlight a pressing need for improvement in financial skills, particularly in managing key financial statements such as income and expenditure, financial position and cash flow management. This disconnect suggests that many informal business owners operate with an intuitive understanding of financial management rather than formally trained approaches. Such findings are consistent with broader literature on the informal sector, which highlights the skills-based limitations that hinder business development and formalisation effort (Folajinmi & Peter, 2020; Malgas & Zondi, 2021).

The study also revealed that there is a strong interconnection between all the financial management skills constructs under study, namely expense tracking, cash

flow management, profit calculation skill and financial skills needs. Improving one financial skill can have a ripple effect that positively influences other areas of financial management. For example, enhancing expense tracking skills enables a clearer understanding of where finances are spent, which in turn supports better cash flow management. With improved control over cash flow, spaza shop owners are more likely to maintain sufficient liquidity and plan effectively for future expenses. This foundation can also lead to more accurate profit calculation, helping entrepreneurs make informed decisions about pricing and cost control. Therefore, strengthening a single financial skill may build confidence and promote greater financial discipline, leading to overall improved financial literacy and sustainability of the business. Therefore, this indicates that financial management should be approached holistically rather than in isolated variables. This outcome confirms results of a study by Kirsten (2018) and Reddy, Wallace and Wellalage (2024), which reveals that improving one skill triggers systemic improvements in an entrepreneur's financial practices.

The group analysis revealed that informal business owners possess a shared recognition of the importance, awareness, confidence and knowledge of finance management skills. However, their responses vary influenced by gender, age, and years the business has been in operation. The results suggested that gender can be used to predict financial skills among business owners. This result is significant and consistent, showing alignment with the findings by Struckell, Patel, Ojha and Oghazi (2021) and Mohta and Shunmugasundaram (2022), where men had a much higher self-reported financial skills than women. However, a study by Oggero, Rossi and Ughetto (2020) found no correlation between financial skills and entrepreneurship among women, although such a relationship was observed for men. The results on age indicated that the younger age group had higher self-rated financial management skills than the older age group. This might be because younger people often receive support through entrepreneurship courses, incubator facilities and South African SMME seed funds (Zhao, O'connor, Wu & Lumpkin, 2021). In contrast, a study that assessed the financial skills among millennials by Mohta and

Shunmugasundara (2022) indicates that millennials possess low basic and advanced financial skills. Although business owners' age is often used as a control variable, the theoretical rationale for the inclusion is questionable. Therefore, entrepreneurs' age deserves scholarly attention rather than being treated as a control. The nature of the business was grouped into two i.e. products and services. The results of the study indicated no significant differences between the two groups regarding financial management skills. The businesses registered with the City of Tshwane were also analysed. The results indicated no significant differences between individuals who are registered with the local authority and those who are not across all variables. An analysis of the years the business has been in operation was conducted. Significant differences were found based on the years a business has been operating, indicating that older businesses tend to score higher. This outcome confirms that skills are a function of years because of the experience gained (El Shoubaki, Laguir & Den, 2020). Lastly, an analysis of the position/role of the business was divided into two, namely, owner/manager and employee. The study indicated that no statistical evidence suggests that owners and employees differ significantly in their responses.

The identification of a clear knowledge-application gap has important implications on literature and the discussion is presented in the next section.

5.4 IMPLICATIONS OF RESULTS OF THE STUDY ON LITERATURE

It may be beneficial to build from the study results as a foundation for new research ideas. The assessment of informal small business owners' financial management skills indicates an underlying and more fundamental crisis. This study is necessary to help entrepreneurship research assess the financial management skills as perceived by small informal business owners. This might increase the rigour of empirical studies.

The study extends the current literature regarding the management of finances using more comprehensive measures of expense tracking, cash flow management, profit calculation, and financial skills need analysis. Prior research has established that financial management skills are critical for the sustainability and growth of micro and small enterprises (Dalla et al., 2021; Süer, 2020). This study adds nuance by highlighting a critical disparity between awareness of financial skills and actual practice. In the context of finance management, several studies have assessed the skills of formal businesses while neglecting informal small businesses. Most previous studies on assessing financial management skills employ a combination of well-established variables that are needed to manage financial resources effectively in a formal, structured, compliant, and strategic business environment. Such variables include budgeting, financial reporting, debt and credit management, financial forecasting, tax planning, and awareness of interest rates (Bondarenko, Shlafman, Kuprina, Kalaman, Moravska & Tsurkan, 2021; Klapper & Lusardi, 2020; Nogueira, Almeida & Tavares, 2025; The Organisation for Economic Co-operation and Development (OECD), 2023). These variables are not relevant to informal small businesses in the South African context. Instead, this study employs a more reliable set of instrumental variables to deal with potential indigeneity factors of finance management, which are the expense tracking, cash flow management, profit calculation and financial skills needs. Furthermore, the study provides more reliable evidence of small business financial management skills in South African townships. To the knowledge of the researcher, there are no recent studies on assessing the financial management skills of informal small business owners using the combined variables; therefore, this study fills this gap.

Clarifying the specific variables of financial management skills enhances the study's precision and can lead to more effective and targeted practical interventions that may help informal businesses to formalise their operations. Although there was a general awareness of the importance of financial management skills, the respondents consistently reported low confidence and knowledge, particularly in accurately executing these tasks. Confidence in implementing financial

management skills was notably low. This indicated a gap between recognising the value of the skills and applying them in practice. Therefore, this study reinforces and expands existing literature by providing empirical evidence of the financial management skill gaps in the informal economy, by so doing, challenging assumptions that awareness equates to application. The study results underscore a critical need for interventions to enhance financial management capabilities. Bridging this gap could improve the business owners' ability to make informed financial management decisions and lead to more effective operations.

5.5 CONCEPTUAL CONCLUSIONS TO KEY FINDINGS

Conceptually, the study challenges a study that ascertains that financial knowledge alone directly improves financial management behavior (Nurisaputri, Fikri, Windikasari & Wardana, 2024). Instead, it supports a more multidimensional understanding of financial literacy, one that reinforces that knowledge alone is not sufficient (Sajid, Mushtaq, Murtaza, Yahiaoui & Pereira, 2024). Additionally, the newly developed research instrument reinforces the need to rethink research instruments that are often designed for the informal sector, which may not capture the realities of the informal sector. Therefore, the contribution of the new instrument may advocate for the local South African township business owners. This section presents the study's conclusions, beginning with an overall group analysis of participants as guided by the research instrument. It is then followed by conclusions drawn from each specific research objective: (1) assessing expense tracking skills, (2) assessing cash flow management skills, (3) assessing profit calculation skills, and (4) identifying financial skills needs among informal business owners.

5.5.1 Conclusion for Research Objective 1 – Assessing Expense Tracking Skills

With respect to expense tracking, the study found that most business owners understood the value of recording business expenses but did not consistently

practice it. The study revealed that although there is a general awareness of the importance of expense tracking, knowledge and confidence remain low. This suggests a gap between knowledge and execution, which may be from a lack of training in the informal business context. Understanding financial issues and related financial behaviour is critical (Kulathunga, Ye, Sharma & Weerathunga, 2020). A lack of financial knowledge among small business owners is well documented (Babajide et al., 2023; Tuffour et al., 2022). A study by Tumba, Onodugo, Akpan and Babarinde (2022) indicates that tailored educational programmes could effectively build knowledge and confidence. Therefore, improved knowledge results in effective financial management as postulated by Kulathunga et al (2020), where he resonates with the findings of the current study, where a high awareness, usefulness, knowledge, and confidence should result in high skill in tracking expenses. In contrast, Klapper, Lusardi and Oudhesden (2022) indicate that improved knowledge does not automatically result in enhanced financial management practices. This is because psychological and locus of control may lack the impact of financial knowledge on practice. Moreover, Lusardi and Mitchell (2023) questioned the link between knowledge and practice as not having a significant relationship between financial knowledge and effective financial management. The perceived usefulness of expense-tracking methods and tools was moderately positive. The results replicate those presented in an empirical study by Adeyemi and Akanji (2020), where most SMMEs do not know how to keep their financial records to be able to track expenses.

5.5.2 Conclusion for Research Objective 2 – Assessing Cash Flow Management Skills

The assessment of cash flow management skills showed similar limitations. A plausible discovery is that business owners grasp the concept of cash flow management, although their knowledge and views on its usefulness differ. These findings correspond with those by Athia et al. (2023) where respondents were aware of the importance of planning and monitoring cash flow. However, the discipline to

implement cash flow planning varies among respondents. For the study, confidence in monitoring and planning cash flow was generally low. Awareness of the potential negative effects of poor cash flow management was moderate but varied across respondents. This is consistent with the literature from a Resource Based View (RBV) study where researchers discovered ineffective management of financial resources (Dzingirai & Ndava, 2022). The study further indicated that in the African small family business context, no study has been conducted on cash flow management.

5.5.3 Conclusion for Research Objective 3 – Assessing Profit Calculation Skills

In terms of profit calculation, many respondents expressed difficulty in determining whether their businesses were truly profitable. This lack of clarity undermines the ability to evaluate business performance effectively and make strategic decisions. The findings underscore the importance of equipping informal entrepreneurs with simple, practical tools to calculate and interpret profit. While respondents generally agreed on the usefulness of profit calculation, confidence and knowledge in accurately calculating profit were low. Accurate profit calculations in small businesses can be influenced by several factors that can distort the understanding of true profitability, which falls outside of the scope of this study. Business owners may lack formal training in accounting or financial analysis, making it difficult to understand cost structures or profit margins (Babajide et al., 2023). Without a clear understanding of profit margins, businesses may under-price products or services, therefore, inadvertently reducing profitability. Business owners without a strong grasp of financial principles may not fully understand how to factor in all revenue streams, costs, and accounting adjustments necessary for accurate profit calculation (Tumba et al., 2022).

5.5.4 Conclusion for Research Objective 4 – Assessing Financial Skills Needs

Finally, the study identified a strong expressed need for support in finance management. Respondents expressed low skill in financial analysis across all three areas which are compile and analyse income statements, financial position, and cash flow statements. This study aligns with Sidhu, Sayem, Taslima, Anwar, Chowdhury and Rowshon (2024), who emphasised, that despite increased investment in upskilling programmes, a significant number of businesses still faced gaps in financial analytical skills. This underscores the need for accessible and practical financial education resources for entrepreneurs. The following section details the interventions that may be implemented to grow the understudied context of informal entrepreneurship.

5.6 RECOMMENDATIONS

The conclusions were outlined in the previous section. This section gives recommendations that may help to grow profitable small businesses in South African townships. In developing these recommendations, it is essential to focus on strategies that are both actionable and sustainable (Cuypers, Patel, Ertug, Li & Cuypers, 2022). The study's outcome may help to understand the strengths and weaknesses of informal entrepreneurs in managing finances. Sutter, Webb, Kistruck, Ketchen and Ireland (2017) indicate the transition to a formal business entail far more than merely achieving legal compliance. It involves practices required by the formal market, including proper financial management. The study may shed light on the gap in finance management skills that hinder informal businesses from meeting the requirements of formal financial institutions, complying with regulatory standards, and accessing formal markets. In addition, understanding the finance management skills of informal entrepreneurs is the first step towards building their capabilities. Based on the findings of the study and the identified gaps in financial

skills among informal small business owners, the following recommendations are proposed to guide policymakers and future studies.

5.6.1 Recommendations for Policymakers

Recommendations were drawn from the conclusions presented. The study's findings may be useful to policymakers in addressing the skills gap and promoting financial literacy as a driver of economic development. Government agencies need to make financial literacy an important consideration (Struckell et al., 2021). Financial education and support programs should address multiple interconnected financial skills rather than treating them in isolation. Training programs that address expense tracking, cash flow management, and profit calculation as interconnected skills should be developed. Teaching these topics together will help learners understand how each area influences overall financial performance.

Mandatory financial education may begin at the primary school level to provide children with essential life skills that improve personal well-being, contribute to financial stability, and support overall economic health and resilience. Policymakers may initiate peer support groups that can significantly boost confidence and facilitate the sharing of best practices in the management of finances (Neneh, 2022). These peer support groups should be sensitive to age, gender and business experience. Policymakers may also organise training and courses for the owners of small businesses and develop suitable record-keeping guidance which will be easier and simpler to understand by SMME owners/managers (Adeyemi & Akanji, 2020).

Small business development agencies in South Africa such as the Small Enterprise Development Agency (SEDA) could use the outcome of the study to design programmes that boost small business success rates and provide low-cost or free financial consultations to help entrepreneurs with financial management skills. The policymakers could have initiatives to provide small businesses with easy-to-use technological tools and templates for managing finances. South Africa could have

more support such as A2Pay, a South African fintech company that provides technology and support specifically designed for small, informal businesses, particularly in townships and rural areas (De Boer, 2023). These technological tools can be mobile applications that could help entrepreneurs visualise their expenses, cash flow, and profit trends to make informed decisions and avoid potential cash shortfalls. Investing in technological tools can enhance small business stability, drive growth, and build resilience in an ever-evolving landscape (Brieger et al., 2020). The Township and Rural Entrepreneurship Programme (TREP) offered by the Department of Small Business Development (DSBD) in South Africa needs to expand its business incubation initiatives. These incubation programmes, as articulated by Msimango-Galawe and Hlatshwayo (2021) may deliver customised training that addresses key skills gaps in financial analysis, focusing on areas such as income and expenditure management, financial position statements, and cash flow analysis to ensure participants build essential competencies. The Township and Rural Entrepreneurship Programme (TREP) mentorship efforts should aim to connect individuals with strong financial skills with those needing improvement, fostering guidance and support. This peer-learning model will enhance overall financial expertise (Ngek, 2022). Regular assessments should be conducted to monitor progress, identify skills gaps and provide personalised feedback, helping participants to target areas for improvement. Prioritising a culture of continuous learning among entrepreneurs will promote best practices in financial analysis and elevate financial proficiency across the programme. Moreover, the study recommends regular monitoring and evaluation of these interventions to ensure continuous improvement and relevance of the programs offered.

5.6.2 Recommendations for Future Study

Based on the findings, conclusions, recommendations, and limitations outlined, suggestions for future research are presented. The study is a foundation for future studies on the causes of low financial management skills. For deeper insights and to better understand why small businesses lack confidence, knowledge, or

awareness of financial management, future studies could incorporate qualitative methods to explore the perceived value of these skills. The study by Adeyemi and Akanji (2020) established that there is a direct relationship between efficient finance management and the growth and profitability of SMMEs. The study further suggested that, if properly practised, could lead to increased profitability and growth. The emerging dynamics of finance management are equally interesting for future research (Hua, Huang & Zheng, 2019). These emerging dynamics are shaped by artificial intelligence, shifting economic conditions, and evolving consumer preferences. In addition, future studies should consider conducting the same study, using larger sample sizes to increase the statistical power of the tests and provide more reliable insights into small business owners' financial skills. Future research should explore the relationship between gender and financial management skills to help design inclusive business support programmes that address gender-specific challenges. Finally, future research could examine the impact of targeted interventions, such as financial literacy programmes, on reducing financial management skills gaps and improving overall business performance.

5.7 DELIMITATIONS OF THE STUDY

Delimitations address how the study is narrowed in scope and boundaries (Bell et al., 2022). The study was limited to SMMEs in the informal sector, particularly spaza shops in Mamelodi Township, Tshwane Municipality. In addition, the study was limited to spaza shops registered with the City of Tshwane. Therefore, those not registered did not form part of the study. Lastly, the participants must have operated for more than one year because the study assumed that they understood the variables under study and were familiar with the use or lack thereof of finance management practices.

5.8 LIMITATIONS OF THE STUDY

The current section outlines the study's limitations. Saunders et al. (2019) defines research limitations as restrictions that may impact the scope, validity, or generalisability of research findings. However, the literature recommends that findings be interpreted considering these limitations. Methodological limitations were encountered in the study. The study employed a convenience, non-probability sampling method, where participation was based on availability and proximity. As a result, the findings cannot be generalised to the entire population. The study was limited to the business owners' practices of expense tracking skills, cash flow management, profit calculation, and financial skills needs. This narrow focus may not have captured the full range of competencies contributing to effective financial management. Moreover, as with most quantitative studies, by design, the survey questionnaires were short (Aithal & Aithal, 2020; Arundel, 2023). This might have limited the amount of detail and context that could be gathered and forced respondents to choose answers that may not fully reflect their experiences which may affect the validity of findings and lead to less trustworthy results. Personal and business finances are closely intertwined for many small business owners (Cowling et al., 2020). Therefore, excluding personal finance management from the study might have overlooked the critical insights into how personal financial habits reflect on business finance management. This is based on a study by Bakar and Bakar (2020), where it was indicated that personal financial habits create a foundation of awareness, confidence and strategic thinking that can directly enhance business financial management skills.

Focusing on expense tracking, cash flow management, and profit calculation skills might lead to recommendations that overlook other important skills. These skills include budgeting, pricing, cost control, and break-even analysis. This could result in less effective interventions for improving overall financial management, profitability, and growth of small businesses. Furthermore, the respondents might

have overestimated or underestimated their financial management skills owing to a lack of self-awareness or to appear more competent.

In the spaza shop industry in South African townships, a significant number of business owners are foreign nationals. They have limited proficiency in English or local South African languages, which made effective communication challenging. Owing to financial constraints, the researcher could not hire data collectors or interpreters. To address this, the researcher read the questions aloud and simplified terms such as "expenses" and "cash flow" by providing examples. The researcher also completed the questionnaires on behalf of the respondents to minimise misunderstandings and reduce the cognitive burden. Therefore, the responses may not accurately reflect the respondent's true views, experiences or knowledge (Glastonbury & MacKean, 2020). Lastly, only spaza shop owners in Mamelodi Township were eligible to participate. This restriction meant the individuals selected may have shared characteristics that differ from the broader population the researcher had intended to study, further limiting the generalisability of the findings.

5.9 DISCUSSIONS OF GAPS, ANOMALIES, AND DEVIATIONS IN DATA

The gaps, anomalies, and deviations in assessing finance management skills are discussed in the following section.

5.9.1 Gaps in Data

The study has gaps rooted in the contextual complexities of the informal economy. These complexities include operating outside the regulatory framework that limits available data and insights for assessment (Bambang et al., 2023; Omri, 2020). Focusing on expense tracking, cash flow management, and profit calculation skills is a narrow category that limits the comprehensiveness of the overall skills necessary to assess finance management. Also, self-reported data bias in the quantitative

study may have resulted in overestimation or underestimation of the skill because respondents lack awareness.

5.9.2 Anomalies in Data

Anomalies are unexpected findings in data that challenge existing assumptions (Foorhuis, 2021). These include unexpected trends that do not align with the theoretical expectations. The study assessed the finance management skills of business owners in the informal sector and did not encounter any anomalies.

5.9.3 Deviations in Data

Deviation measures the extent a data point differs from an expected benchmark (Pallant, 2016). A small deviation reflects consistency while a large deviation indicates systematic factors influencing data. Analysing deviations may uncover contextual influences that enable effective interventions. The study did not have deviations.

5.10 CONTRIBUTION TO KNOWLEDGE

The study enhances the body of knowledge in entrepreneurship by providing a deeper understanding of financial management as a multifaceted construct. The study highlights key areas such as expense tracking, cash flow management, profit calculation, and financial skills needs analysis. This comprehensive perspective can inform the development of interventions that can grow profitable small businesses in South Africa. Moreover, the study empirically demonstrates that small business owners lack confidence, knowledge, awareness, and financial analysis skills. This suggests that these owners are not adequately empowered to navigate complexities or make strategic decisions, which are essential for building resilient enterprises and improving their sustainability.

The use of a newly developed questionnaire was a necessary innovation, given the lack of existing tools suited to the specific realities of the informal business context. Although the tool may benefit from further refinement and validation, it provided valuable insight into areas where spaza shop owners require support.

The findings can guide business practices by identifying specific areas where entrepreneurs require support or training, ultimately enhancing overall business performance. Additionally, the study serves as a benchmark for assessing financial skills, helping to inform support initiatives that identify best practices in financial training and literacy programmes. The insights gained can also shape educational policies aimed at improving financial literacy from primary education to professional development, ensuring that entrepreneurs are better equipped to manage finances effectively.

5.11 CONCLUSION OF THE STUDY

This chapter concludes the research study, which assessed the small business financial management skills conducted in Mamelodi Township, Tshwane Municipality. The conclusions were discussed in conjunction with the stated objectives and recommendations. The limitations were identified followed by future research suggestions. The research presented in this study has extended the literature on entrepreneurship especially as it relates to financial management. The study outcome suggests a general awareness of the importance of financial management skills, respondents consistently reported low confidence and knowledge, particularly in accurately executing these tasks. Confidence in tracking expenses, managing cash flow, calculating profit, and analysing financial statements was notably low, indicating a gap between recognising the value of these skills and applying them in practice. Therefore, it was recommended to implement targeted training programmes to bridge this gap and improve the entrepreneurs' financial skills.

5.12 CHAPTER SUMMARY

The study's objectives, hypotheses and statistical analysis were presented. The assessment of financial management skills in expense tracking, cash flow management, profit calculation, and financial statement analysis revealed significant disparities. The respondents indicated awareness of the importance of these skills. However, there was low confidence and knowledge, particularly in accurately executing these tasks, indicating a gap between recognising the value of the skills and applying them in practice. The study indicated the critical need for interventions that enhance business owners' financial management capabilities. Bridging this gap may lead to more fluid practical interventions that may help informal small businesses formalise their operations.

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APPENDIX A: ETHICAL CLEARANCE CERTIFICATE FROM UNISA

5. The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study. Adherence to the following South African legislation is important, if applicable: Protection of Personal Information Act, no 4 of 2013; Children's act no 38 of 2005 and the National Health Act, no 61 of 2003.
6. Only de-identified research data may be used for secondary research purposes in future on condition that the research objectives are similar to those of the original research. Secondary use of identifiable human research data requires additional ethics clearance.
7. No field work activities may continue after the expiry date (1 December 2026). Submission of a completed research ethics progress report will constitute an application for renewal, for Ethics Research Committee approval.

Additional Conditions

1. Disclosure of data to third parties is prohibited without explicit consent from Unisa.
2. De-identified data must be safely stored on password protected PCs.
3. Care should be taken by the researcher when publishing the results to protect the confidentiality and privacy of the university.
4. Adherence to the National Statement on Ethical Research and Publication practices, principle 7 referring to Social awareness, must be ensured: "Researchers and institutions must be sensitive to the potential impact of their research on society, marginal groups or individuals, and must consider these when weighing the benefits of the research against any harmful effects, with a view to minimising or avoiding the latter where possible." Unisa will not be liable for any failure to comply with this principle.

Note

The reference number 1564 should be clearly indicated on all forms of communication with the intended research participants, as well as with the Committee.

Kind regards,



Dr R Shibi
Chair of College of Economic and Management Sciences_ERC Business Management
E-mail: shibi@unisa.ac.za



Executive Dean / By delegation from the Executive Dean of College of Economic and Management Sciences_ERC Business Management
E-mail: mogaimb@unisa.ac.za

5. The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study. Adherence to the following South African legislation is important, if applicable: Protection of Personal Information Act, no 4 of 2013; Children's act no 38 of 2005 and the National Health Act, no 61 of 2003.
6. Only de-identified research data may be used for secondary research purposes in future on condition that the research objectives are similar to those of the original research. Secondary use of identifiable human research data requires additional ethics clearance.
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Note

The reference number 1564 should be clearly indicated on all forms of communication with the intended research participants, as well as with the Committee.

Kind regards,



Dr R Shibi
Chair of College of Economic and Management Sciences_ERC Business Management
E-mail: shibi@unisa.ac.za



Executive Dean / By delegation from the Executive Dean of College of Economic and Management Sciences_ERC Business Management
E-mail: mogam@unisa.ac.za

APPENDIX B: CITY OF TSHWANE PERMISSION LETTER



City Strategy and Organizational Performance

Room RD 17 | Ground Floor, West Wing, Block D | Tshwane House | 320 Madiba Street | Pretoria | 0002
PO Box 440 | Pretoria | 0001
Tel: 012 358 2182
Email: ThabisaMb@tshwane.gov.za | www.tshwane.gov.za | www.facebook.com/CityOfTshwane

My ref: **Research Permission/ Phiri**
Contact person: **Pearl Maponya**
Section/Unit: **Knowledge Management**

Tel: 012 358 4559
Email: PearlMap3@tshwane.gov.za
Date: 15 August 2023

Ms Theresa Phiri
207 Ben Viljoen Street
Akasia
0182

Dear Ms Theresa Phiri,

RE: ADOPTING FINANCIAL MANAGEMENT SOLUTION FOR SMMEs IN THE TOWNSHIP

Permission is hereby granted to Ms Theresa Phiri, Master of Commerce degree candidate at the University of South Africa (UNISA), to conduct research in the City of Tshwane Metropolitan Municipality.

It is noted the primary objectives of the study are to access the possibilities of adopting financial management solution model for small businesses and to determine which elements of the financial management solution model, contribute to profitability and growth. The City of Tshwane approves the use of its name in the study and further notes that all ethical aspects of the research will be covered within the provisions of UNISA Research Ethics Policy. You will be required to sign a confidentiality agreement with the City of Tshwane prior to conducting research.

Relevant information required for the purpose of the research project will be made available as per applicable laws and regulations. The City of Tshwane is not liable to cover the costs of the research. Upon completion of the research study, it would be appreciated that the findings in the form of a report and or presentation be shared with the City of Tshwane.

Yours faithfully,

PEARL MAPONYA (Ms.)
DIRECTOR: KNOWLEDGE MANAGEMENT

APPENDIX C: CONSENT TO PARTICIPATE IN THE STUDY



CONSENT TO PARTICIPATE IN THIS STUDY

I, _____ (participant name), confirm that the person asking my consent to take part in this research has told me about the nature, procedure, potential benefits and anticipated inconvenience of participation.

I have read (or had explained to me) and understood the study as explained in the information sheet.

I have had sufficient opportunity to ask questions and am prepared to participate in the study.

I understand that my participation is voluntary and that I am free to withdraw at any time without penalty (if applicable).

I am aware that the findings of this study will be processed into a research report, journal publications, and/or conference proceedings, but that my participation will be kept confidential unless otherwise specified.

I agree to the recording of the <insert specific data collection method>.

I have received a signed copy of the informed consent agreement.

Participant Name & Surname..... (please print)

Participant Signature..... Date.....

Researcher's Name & Surname..... (please print)

Researcher's signature..... Date.....



University of South Africa
Preller Street, Muckleneuk Ridge, City of Tshwane
PO Box 392 UNISA 0003 South Africa
Telephone: +27 12 429 3111 Facsimile: +27 12 429 4150
www.unisa.ac.za

APPENDIX D: QUESTIONNAIRE



QUESTIONNAIRE

Section A

Personal Profile:

MARK THE APPROPRIATE BOX WITH X

1. Gender

Male		Female		Other	
------	--	--------	--	-------	--

2. Age profile

18-25		26-35		36-45		46+	
-------	--	-------	--	-------	--	-----	--

Section B

Business Profile:

Kindly provide the following information:

MARK THE APPROPRIATE BOX WITH X

3. Nature of the business:

Products		Services		Other	
Describe the main products:					

4. Is the business registered with the City of Tshwane?

Yes		No	
-----	--	----	--

5. How long has the business been in operation?

Less than 1 year		1 - 3 years	
4 - 6 years		7+ Years	

6. What is your position/role in the business?

Owner / Manager	
Employee	

SECTION C

Expense Tracking Skill Assessment:

Rate the following statements about expense tracking using the provided scale.

MARK THE APPROPRIATE BOX WITH X

7. Awareness:

I am aware of the importance of expense-tracking practices in my business.

Not at all aware of the importance	Slightly aware of the importance	Moderately aware of the importance	Very aware of the importance	Extremely aware of the importance

8. Knowledge:

I know the various expense-tracking methods and tools.

Strongly disagree	Disagree	Neutral	Agree	Strongly agree

9. Confidence level:

I am confident in my ability to track business expenses.

Not at all confident	Slightly confident	Moderately confident	Very confident	Extremely confident

10. Usefulness:

Tracking expenses is useful for my business.

Not at all useful	Slightly useful	Moderately useful	Very useful	Extremely useful

SECTION D

Cash Flow Management Skill Assessment:

Rate the following statements about cash flow management using the provided scale.

MARK THE APPROPRIATE BOX WITH X

11. Knowledge:

I know the concept of cash flow (*cash in - cash out*) management.

Strongly disagree	Disagree	Neutral	Agree	Strongly agree

12. Usefulness:

Cash flow (*cash in - cash out*) management is useful for my business.

Not at all useful	Slightly useful	Moderately useful	Very useful	Extremely useful

13. Confidence level:

I am confident of my ability to effectively monitor cash flow (*cash in - cash out*) management.

Not at all confident	Slightly confident	Moderately confident	Very confident	Extremely confident

14. Knowledge:

I perform cash flow planning in my business.

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

15. Awareness:

I am aware of the negative consequences of lack of or poor cash flow (*cash in - cash out*) management.

Not at all aware	Slightly aware	Moderately aware	Very aware	Extremely aware

SECTION E

Profit Calculation Skill Assessment:

Rate the following statements about profit calculation using the provided scale:

MARK THE APPROPRIATE BOX WITH X

16. Knowledge:

I know that profit calculation is useful in assessing the financial performance of my business.

Strongly disagree	Disagree	Neutral	Agree	Strongly agree

17. Confidence Level:

I am confident in my ability to calculate profit accurately.

Not at all confident	Slightly confident	Moderately confident	Very confident	Extremely confident

18. Awareness

I am aware that profit calculation is essential for effective business decision-making.

Not at all aware	Slightly aware	Moderately aware	Very aware	Extremely aware

19. Knowledge

I know various methods for calculating profit for my business.

Strongly disagree	Disagree	Neutral	Agree	Strongly agree

SECTION F

Financial skills level needs assessment:

Rate the following statements about the management of finances using the provided scale.

MARK THE APPROPRIATE BOX WITH X

20. I can effectively compile and analyse the business' statement of income and expenditure.

Not at all effective	Somewhat effective	Moderately effective	Fairly effective	Completely effective

21. I can effectively compile and analyse the business' financial position statement.

Not at all effective	Somewhat effective	Moderately effective	Fairly effective	Completely effective

22. I can effectively compile and analyse the business' statement of cash flow.

Not at all effective	Somewhat effective	Moderately effective	Fairly effective	Completely effective

APPENDIX E: PRE-TEST FEEDBACK



Annexure B

Questionnaire Pretest feedback

1. How clearly did you understand the research questions presented?

Fully understood	Partially understood	Not understood

2. Were there any questions that you found confusing or unclear? If yes tick the question.

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15

3. How confident are you in your understanding of the overall purpose of the research based on the questions presented?

Low Confidence	Moderate Confidence	High Confidence

4. Did you feel that the difficulty level of the questions was appropriate for assessing your knowledge as a business owner?

Yes	No

5. How would you rate the clarity of instructions

Confusing	Neutral	Very Clear

6. Were the time constraints during the assessment reasonable, or did you feel rushed?

Too rushed	Just right	More time could have been allotted

7. Do you believe the questions accurately reflect your knowledge and skills in managing finances as a small business owner?

Yes	No

APPENDIX F: THIRD-PARTY CONFIDENTIALITY AGREEMENT - STATISTICIAN

1



UNISA RESEARCH ETHICS 3rd Party Confidentiality Agreement (Transcriber, Co-coder, Statistician and/or Fieldworkers)

A. INSTRUCTIONS

Please read through the entirety of this form carefully before signing.

After completing the required fields, please sign the form. After this form has been signed by the transcriber, co-coder, statistician or fieldworker, it should be given to the principal researcher for submission to the relevant UNISA Research Ethics Committee.

The transcriber, co-coder, statistician and/or fieldworker should keep a copy of the *Confidentiality Agreement* for their records.

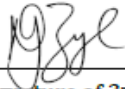
B. CONFIDENTIALITY OF A RESEARCH STUDY

Confidentiality is the treatment and maintenance of information that an individual has disclosed in a relationship of trust and with the expectation that it will not be divulged to others in ways that are inconsistent with the understanding of the original disclosure (the informed consent documentation) without permission. Confidential information relating to human participants in a research study may include, but is not limited to the personal information listed below:

- a) information relating to the race, gender, sex, pregnancy, marital status, national, ethnic or social origin, color, sexual orientation, age, physical or mental health, well-being, disability, religion, conscience, belief, culture, language and birth of the person;
- b) information relating to the education or the medical, financial, criminal or employment history of the person;
- c) any identifying number, symbol, e-mail address, physical address, telephone number, location information, online identifier or other assignment to the person;
- d) the biometric information of the person;
- e) the personal opinions, views or preferences of the person;
- f) correspondence sent by the person that is implicitly or explicitly of a private or confidential nature or further correspondence that would reveal the contents of the original correspondence;
- g) the views or opinions of another individual about the person; and
- h) the name of the person if it appears with other personal information relating to the person or if the disclosure of the name itself would reveal information about the person.

Form adapted from the confidentiality agreement developed by the University of St Thomas IRB, retrieved from <https://www.stthomas.edu>

by the principal researcher. I recognise that failure to comply with these expectations may result in legal action.



Signature of 3rd party

2023/11/30

Date

Dion van Zyl

Print Name

APPENDIX G: THIRD-PARTY CONFIDENTIALITY AGREEMENT – LANGUAGE EDITOR

1


UNISA | university of south africa

UNISA RESEARCH ETHICS 3rd Party Confidentiality Agreement
(Transcriber, Co-coder, Statistician and/or Fieldworkers)

A. INSTRUCTIONS

Please read through the entirety of this form carefully before signing.

After completing the required fields, please sign the form. After this form has been signed by the transcriber, co-coder, statistician or fieldworker, it should be given to the principal researcher for submission to the relevant UNISA Research Ethics Committee.

The transcriber, co-coder, statistician and/or fieldworker should keep a copy of the *Confidentiality Agreement* for their records.

B. CONFIDENTIALITY OF A RESEARCH STUDY

Confidentiality is the treatment and maintenance of information that an individual has disclosed in a relationship of trust and with the expectation that it will not be divulged to others in ways that are inconsistent with the understanding of the original disclosure (the informed consent documentation) without permission. Confidential information relating to human participants in a research study may include, but is not limited to the personal information listed below:

- a) information relating to the race, gender, sex, pregnancy, marital status, national, ethnic or social origin, color, sexual orientation, age, physical or mental health, well-being, disability, religion, conscience, belief, culture, language and birth of the person;
- b) information relating to the education or the medical, financial, criminal or employment history of the person;
- c) any identifying number, symbol, e-mail address, physical address, telephone number, location information, online identifier or other assignment to the person;
- d) the biometric information of the person;
- e) the personal opinions, views or preferences of the person;
- f) correspondence sent by the person that is implicitly or explicitly of a private or confidential nature or further correspondence that would reveal the contents of the original correspondence;
- g) the views or opinions of another individual about the person; and
- h) the name of the person if it appears with other personal information relating to the person or if the disclosure of the name itself would reveal information about the person.

Form adapted from the confidentiality agreement developed by the University of St Thomas IRE, retrieved from <https://www.stthomas.edu>

As a third party you will have access to research information (e.g. audio or video recordings, DVDs/CDs, transcripts, data, etc.) that include confidential information. Participants have revealed information to the researcher(s) since they have been assured by the researcher(s) that every effort will be made to maintain their privacy throughout the study. That is why it is of the utmost importance to maintain confidentiality when conducting your duties as a transcriber, statistician, co-coder and/or fieldworker during the research study. *Below is a list of expectations you will be required to adhere to in your role as a third party in this study. Review these expectations carefully before signing this form.*

C. THIRD PARTY EXPECTATIONS

To maintain confidentiality, I agree to:

1. Keep all research information that I collect or that is shared with me confidential by not discussing or sharing this information verbally or in any format with anyone other than the principal researcher of this study;
2. Ensure the security of research information (e.g. audio or video recordings, DVDs/CDs, transcripts, data, etc.) while it is in my possession. This includes:
 - Keeping all data and/or transcript documents and digitized interviews on a password protected computer with password-protected files;
 - Closing any programs and documents when temporarily away from the computer;
 - Keeping any printed transcripts or data in a secure location such as a locked file cabinet;
 - Permanently deleting any digital communication containing the data.
3. Not make copies of research information (e.g. audio or video recordings, DVDs/CDs, transcripts, data, etc.) unless specifically instructed to do so by the principal researcher;
4. Give all research information (e.g. audio or video recordings, DVDs/CDs, transcripts, data, etc.) and research participant information, back to the principal researcher upon completion of my duties as a transcriber;
5. After discussing it with the principal researcher, erase or destroy all research information (e.g. audio or video recordings, DVDs/CDs, transcripts, data, etc.) that cannot be returned to the principal researcher upon completion of my duties in this study.

Name of 3rd party involved in research activities: Statistician

Research activity responsible for (transcribing interviews, co-coding of data, statistical analysis, collecting data, etc.): Statistical analysis

Title of Research Study: Empowering SMMEs through effective Cash budget, Cash-flow management and expense tracking: A case of Spaza shops in Mamelodi Township

Name of Principal Researcher: Theresa Phiri

By signing this form, I acknowledge that I have reviewed, understand, and agree to adhere to the expectations described above. I agree to maintain confidentiality while performing my duties as acquired

Form adapted from the confidentiality agreement developed by the University of St Thomas IRB, retrieved from <https://www.stthomas.edu>

by the principal researcher. I recognise that failure to comply with these expectations may result in legal action.



Signature of 3rd party

19.12.2024

Date

Dr JM Chokwe

Print Name

APPENDIX H: LANGUAGE EDITING CERTIFICATE

EDITING AND PROOFREADING CERTIFICATE

22 Osche Street

The Reeds

Centurion

0157

27 December 2024

TO WHOM IT MAY CONCERN

This certificate serves to confirm that I have edited Theresa Phiri's dissertation titled, **"Assessing financial management skills: A study of SMMEs (spaza shops) owners in Mamelodi township, South Africa."**

I found the work easy and intriguing to read. Much of my editing basically dealt with obstructionist technical aspects of language, grammar and syntax, which could have otherwise compromised smooth reading as well as the sense of the information being conveyed. I hope that the work will be found to be of an acceptable standard. I am a member of Professional Editors' Guild.

Hereunder are my contact details:



Jack Chokwe (PhD – University of Leicester (United Kingdom))

Contact numbers: 072 214 5489

jackchokwe@gmail.com

Professional
EDITORS
Guild



APPENDIX I: TURNITIN REPORT

