FINANCIAL LITERACY AND FINANCIAL INCLUSION OF MICRO AND SMALL BUSINESS OWNERS IN KENYA: A CASE OF SMALL BUSINESS OWNERS IN NAIROBI COUNTY

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DECLARATION

I declare that this applied research project is my original work and has not been submitted to an examinations body or institution of higher learning for purposes of certification.

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This applied research project is submitted for examination with our approval as the University Supervisors.

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DEDICATION

This research project is dedicated to my husband Mr. Antony Buenrostro Karanja, my children Gian Adrian Karanja, Zuri Grania Karanja, Ella Gianna Karanja, and my family members for their continuous prayers and encouragement throughout my research.

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ABSTRACT

Over the past decade Kenya has experienced intense financial sector reforms with extensive growth of technological advancements such as mobile banking and automatic teller machines. Growth in financial inclusion has been cited as one of the pillars that are expected to drive the economy towards a prosperous ten per cent growth rate as envisioned in the vision 2030. Greater financial inclusion is expected to increase household's access to financial services, boost savings and investments, and lead to the realization of the country's development agenda. However, despite the efforts, access to formal financial services remains low. The main intention of this research was to examine the effect of financial literacy on financial inclusion of micro and small business owners in Nairobi County. The following specific objectives were used to guide the study; to determine the influence of saving practices on financial inclusion, to examine the effect of debt management practices on financial inclusion, to determine the effect of financial planning practices on financial inclusion and to establish the effect of investment practices on financial inclusion of micro and small business owners in Nairobi County. Information asymmetry theory, behavioral economics theory and financial education theory were adopted to anchor the study. Both a descriptive and an explanatory research design were used in this research. The target population comprised of all the 13,428 small and micro retail businesses owners operating in Nairobi City Central Business District. Yamane formula was used to arrive at the sample size of 388. Primary data obtained using questionnaires was collected. The questionnaire's validity and effectiveness was tested in this study by randomly selecting 39 respondents to complete it. The questionnaires were administered through Google forms. Upon collection of the data, it was coded in quantitative format so as to enable analysing using version 24 of statistical package for social sciences (SPSS). Inferential as well as descriptive statistics generated included frequencies and percentages and simple and multiple linear regression respectively. Descriptive and inferential statistics generated were presented in tables and figures. 308 questionnaires were fully filled and returned giving a response rate of 79.4% that was considered adequate. Findings revealed a positive and significant relationship between various financial literacy practices – saving (β=0.225, p=0.000), debt management (β=0.405, p=0.000), financial planning (β=0.198, p=0.000), and investment (β=0.728, p=0.000)– and heightened financial inclusion. The study concludes that business owners engaging in disciplined saving practices, effective debt management, comprehensive financial planning, and active investment strategies were more likely to experience increased access to formal financial services. The research underscores the pivotal role of financial literacy in fostering financial inclusion among micro and small businesses. Recommendations include the development of targeted financial education programs, promotion of technology-driven financial solutions, and longitudinal studies to assess the sustained impact of financial literacy interventions. These insights provide a foundation for policymakers, financial institutions, and business support organizations to enhance financial inclusion strategies tailored to the unique needs of micro and small business owners in Nairobi County.

DEFINITION OF TERMS

Debt management: Refers to the ability of individuals and businesses to effectively manage their debts, including credit cards, loans, and mortgages (Molina, 2021).

Financial inclusion: Refers to the access of individuals and businesses to formal financial services, such as credit, savings, insurance, and investment opportunities (Mhlanga, 2021).

Financial literacy: Refers to the knowledge and skills needed to make informed financial decisions (Fanta & Mutsonziwa, 2021).

Financial planning: Refers to the process of setting financial goals, creating a budget, and developing a plan to achieve those goals (Richards & Safari, 2021).

Investments: Refer to the purchase of financial assets such as stocks, bonds, and mutual funds, with the aim of generating a return on investment (Manafe, 2021).

Savings: This refers to the money that individuals set aside from their income or revenue for future use (Doan, 2020).

ABBREVIATIONS AND ACRONYMS

ANU	**:**	Africa Nazarene University
ANOVA	**:**	Analysis of Variance
GDP	**:**	Gross Domestic Product
ICT	**:**	Information and Communication Technology
IFC	**:**	International Finance Corporation
KNBS	**:**	Kenya National Bureau of Statistics
MSE	**:**	Micro and Small Enterprises
MSME	**:**	Micro, Small and Medium Enterprises
NACOSTI	**:**	National Commission of Science, Technology and Innovation
OECD	**:**	Organization for Economic and Cooperative Development
SME	**:**	Small and Micro Enterprises
SPSS	**:**	Statistical Package for Social Sciences
TIVET	**:**	Technical Industrial Vocational and Entrepreneurship Training
UK	**:**	United Kingdom
UNDP	**:**	United Nations Development Programme
USA	**:**	United States of America
USAID	**:**	United States Agency for International Development

CHAPTER ONE
INTRODUCTION AND BACKGROUND OF THE STUDY

1.0 Introduction

The chapter explores the study's background, problem statement, study objectives, research questions, study's significance, scope, limitations, and delimitations as well as exemplifies a conceptual framework that shows the relation between the study independent and dependent variables.

1.1 Background of the Study

Association between financial literacy and financial is close, as financial literacy can promote financial inclusion and financial inclusion can increase financial literacy (Hamid & Locke, 2021). Financial inclusion denotes availability and accessibility of financial products and services to a wide individual range and businesses, including those traditionally excluded from the financial system (Swieka, Yesildag, Ozen & Grima, 2020). By increasing financial literacy, individuals are better equipped to access as well as financial products and services use, which help them to manage their finances and achieve their financial objectives (Niankara & Muqattash, 2020).

Notwithstanding the sincere concern and efforts by numerous organizations of boosting financial literacy of many people across the world, studies endure to specify an absence of financial literacy among many. Studies in United States of America (USA) reveal that majority of Americans do not understand the terms of their financial behaviour and hence banks have profited because of consumer mistakes (Acohido, 2018). This resulted to revision of credit service rules in America to protect consumers with little effect. Consumers in other nations must make a variety of difficult decisions, starting with selecting the best credit card issuer and the credit card features that best suit their requirements (Shibia & Kieya, 2018).

In developing nations, parents and other family members frequently give money to young people. The Interactive Economic Museum in Mexico offers financial education through its own programs as well as publications produced in association with the commercial sector, seminars, and workshops (Paladino, 2021). The Bank of Thailand sponsors the "Fin. Dee We can do!" competition to give vocational students practical experiences where they can use their financial expertise to address certain financial challenges (Kijkasiwat & Chancharat, 2022).

Several countries in Africa (Egypt, Uganda, Ghana, South Africa, Tanzania, and Nigeria among others) are promoting financial education as an important tool for supporting entrepreneurship (Fatoki, 2021). However, financial literacy and financial inclusion as proxies of financial education have shown mixed or no effects on developing countries (Hussain, Yahya & Waqas, 2021). Evidence suggests that many people who are financially excluded are unaware of basic financial concepts, words, and aspects that are present in financial products available in developing nations (Berg & Zia, 2018). As noted by Ozili (2021) greater awareness by customers and good financial infrastructure affects financial inclusion in Nigeria.

According to research by the Organisation for Economic Co-operation and Development (OECD) (2019), only a small percentage of South Africa's 33 million adult citizens (37%), who had no access to banking services in 2018, had access to formal funding. The consumer financial literacy program provides the fundamental financial knowledge that every consumer needs, such as how to handle one's own finances, how to open a bank account, and the significance of having one (USAID, 2019).

In other African countries, financial institutions have boarded on consumer education as one of their social responsibility as well as marketing strategy to contemplate the unbanked public for growth and sustainability. In Uganda, recent studies show that financial literacy impact financial inclusion magnitude. For instance, networks moderate the association between financial inclusion and financial literacy in a positive substantial way, with both financial inclusion and networks having an impact (Kasozi & Makina,2021). In Uganda, around 74% of the rural poor rely on informal financial services, primarily community-led self-help groups and welfare funds where members save and lend money to one another (OECD, 2019).

Kenya has always demonstrated its commitment in promoting global agenda of financial inclusion and this is evident through several reforms in the financial sector. For instance, agency and mobile banking have completely transformed the nation's financial industry (CBK, 2020). The Kenyan government has created a package for specific groups in addition to advocating for inclusivity at the policy level: People with disabilities, youths, and women. The government's initial effort to promote financial inclusion was the youth and women fund, which has been around for more than ten years. Additionally, the Uwezo Fund was established in 2013 with 6 billion shillings set aside for women, young people, and individuals with impairments. These funds were intended to enhance these target populations' social and economic capacity (World Bank, 2021).

Small and medium-sized businesses (SMEs) who lack financial literacy find hard to acquire finance since they can't properly create financial reports and have poor financial management. As per Ye, and Kulathunga (2019) most of SMEs units failed to access bank financing. It is noted that minimal distribution of funding to SMEs are attributed to issues to do management of debt or skills related to, as well as financial

and business management, which is usually still having manual management (Purwaningsih & Kusuma Damar, 2018).

1.1.1 Financial Literacy

Financial literacy denotes knowledge, skills, and attitudes necessary in arriving at informed and effective financial matters decisions. It involves knowing the basics of personal finance, such as planning, saving, investing, and managing debt (Muñoz-Céspedes, Ibar-Alonso & de Lorenzo Ros, 2021). Financial literacy also includes knowledge of financial products and services, like bank accounts, credit cards, and loans, as well as the ability to evaluate and compare them. Financial literacy is important because it helps individuals make better financial decisions, leading to improved financial stability and security (Amagir, Groot, van den Brink & Wilschut, 2020). This section discusses the indicators of financial literacy namely saving, debt management, financial planning, and investment.

1.1.1.1 Saving Practice

Saving is the practice of putting some of one's resources or cash aside for use in the future as opposed to using them right away (Doan, 2020). This can be done by depositing money into a savings account, investing in stocks or other assets, or simply keeping cash in a safe place. Saving can be a useful financial habit for a number of reasons. First, it allows individuals to build up a financial cushion that can be used in case of unexpected expenses or emergencies. Second, it can aid persons work towards financial goals of long-term, like saving for making home deposit or child education funding. Finally, saving can help individuals achieve financial independence and security by allowing them to accumulate wealth over time (Klapper & Lusardi, 2020).

1.1.1.2 Debt Management Practice

Debt management denotes managing and debt repayment process in a way that is manageable and sustainable for an individual or organization. This can involve creating a budget, prioritizing debts, negotiating with creditors, and making regular payments to reduce the amount owed (Molina, 2021). Debt management is important because excessive debt can lead to financial stress, reduced creditworthiness, and even bankruptcy. By managing debts effectively, individuals and organizations can regain control of their finances and work towards becoming debt-free. Some common strategies for debt management include creating a budget to understand how much money is available for debt repayment, prioritizing debts based on interest rates, and making regular payments to reduce the amount owed (Freire, Rios, Perez, Castellanos, Correal, Ramač, & Spinola, 2021).

1.1.1.3 Financial Planning Practice

Financial planning refers to the process of making a comprehensive strategy to attain an individual or organization's financial objectives. It involves evaluating current financial circumstances, setting goals, and creating a plan for resource allocation mechanism in realizing those goals (Herrador-Alcaide, Hernández-Solís & Topa, 2021). The financial planning process can involve a number of different areas, with budgeting and cash flow management, saving and investing, retirement planning, tax planning, and risk management. By creating a plan that addresses each of these areas, individuals and organizations can work towards achieving financial stability, security, and independence (Richards & Safari, 2021).

1.1.1.4 Investment Practice

Investment is the practice of deploying resources such as money, time, or other assets in the hope of generating a profit or return in the future. The aim of investment is to grow wealth over time through assets investment that have probability of value appreciation, generate income, or both (Manafe, 2021). Diverse investments kinds are available, notably stocks, bonds, real estate, mutual funds, ETFs, commodities, and alternative investments. Each type of investment has its own risk and return profile, and investors should carefully consider the potential risks and rewards before committing resources (Molina, 2021). Investment can be a useful tool for persons and organizations attempts to achieve long-term financial goals such as retirement, education, or wealth creation (Gupta, 2021).

1.1.2 Financial Inclusion

Financial inclusion denotes affordable and accessible financial products and services provision to persons and communities who are excluded from traditional financial systems (Mhlanga, 2021). It aims to provide everyone, regardless of their income level or geographic location, with basic financial tools access like savings accounts, loans, insurance, and payment services. Lack of financial inclusion can create significant barriers to economic growth and social development, particularly in low-income communities and developing countries. Without access to financial services, individuals may be forced to rely on informal or exploitative financial systems, which can lead to high costs, low savings rates, and limited economic opportunities (Cicchiello, Kazemikhasragh, Monferrá & Girón, 2021).

Measures of financial inclusion are used to assess individuals and communities' extent of financial services access. There are several key measures of financial

inclusion that can be used to evaluate financial access and usage. First, access to formal financial services looks at the population proportion that has access to financial products and services like bank accounts, credit, insurance, and payment services (Dar & Ahmed, 2021). Usage of formal financial services is another important measure of financial inclusion. This measure helps identify patterns of financial behavior and highlight areas where financial education or other interventions may be needed (Feghali, Mora & Nassif, 2021).

1.1.3 Financial Literacy and Financial Inclusion

A close link exists between financial literacy and financial inclusion as financial literacy is a financial inclusion key driver. Financial literacy refers to the level of knowledge and understanding that individuals have about financial products and services, including budgeting, saving, investing, and managing debt (Fanta & Mutsonziwa, 2021). When individuals have a basic understanding of financial concepts and tools, they are better equipped to access and effectively use financial services, which in turn can lead to greater financial inclusion. Financial literacy can help individuals navigate the complex financial landscape, understand the benefits and risks of diverse financial products and services, and make finance informed decisions. This can help individuals build financial stability and resilience, which is an important component of financial inclusion (Nugraha, Tulung & Arie, 2021).

Financial literacy can also help individuals overcome barriers to financial access, such as lack of knowledge pertaining financial products and services, limited financial resources, or a lack of trust in financial institutions (Adetunji, & David-West, 2019). By empowering individuals with the knowledge and skills required in effective financial services use, financial literacy can aid rise financial inclusion, particularly

for underserved populations. Moreover, financial literacy is often a key component of financial inclusion programs, as financial education can be used to promote financial inclusion and help individuals develop the skills and knowledge needed to effectively use financial products and services (Akileng, Lawino, & Nzibonera, 2018).

1.1.4 Micro and Small Business Owners in Kenya

According to the Kenya Economic Survey from 2022, retail SMEs in Kenya account for around 25.6% of GDP and 80% of employment. They are effective and creative job makers, large firm foundation, and the energy behind a country's economic engines (IFC, 2020). According to the SMEs survey basic report (KNBS, 2021) and the national and small enterprise baseline survey (GoK, 2021), there are about 1.3 million small businesses in Kenya that employ about 2.4 million people. Over 4.6 million people are employed by SMEs in Nairobi County, which accounts for over 30% of total employment and roughly 75% of all enterprises (Akimana, 2019). According to the Nairobi City County Government's estimation (Nairobi City County, 2021), there are 101,450 SMEs in the County.

According to data from the Kenya National Bureau of Statistics (KNBS, 2021), retail SMEs in Kenya produce roughly 25.6% of the country's overall GDP. According to the Economic Survey of Kenya report from 2022, the informal sector is becoming a more important part of the economy as more job possibilities are being developed there. According to the research, the sector generated more than 700,000 new jobs in 2021, or 83.4% of entire new jobs nationwide. Majority of the SMEs are located in Nairobi County which is the capital city of Kenya and is also the most populous county in Kenya.

SMEs have a lot of potential, but they also confront a lot of obstacles, which causes the majority of them to perform poorly and ultimately lose ground to rivals. Most SMEs fail in their first year of business, as is widely known and proven (KNBS, 2021). In view of this worrying rate of failure, it is essential that study into the factors needed to facilitate the survival of SMEs be done, and thus to make progress to the growth stage in the life cycle of organizational growth. Financial literacy is expected to enhance financial inclusion of SMEs as lack of credit facilities has been a major hindrance to success of SMEs.

1.2 Statement of the Problem

Kenya Vision 2030 recognizes the importance of financial education in promoting financial inclusion (World Bank, 2022). The vision emphasizes the need to increase financial literacy among the population, particularly among vulnerable and marginalized groups, to empower persons and communities in effective use financial services and products (IFC, 2021). However, despite this, financial exclusion remains a significant challenge in Kenya, with many individuals and communities lacking access to financial services. For example, at 58, 29 and 17 percent, correspondingly, access to savings, credit, and insurance is still low (Bekele, 2022). Additionally, according to the Fin receive Survey (2021), 33% of the nation's population used officially licensed financial institutions to receive financial services, 8% used unlicensed ones, 26% were financially excluded, and 33% used alternative sources. A study conducted by the International Finance Corporation (IFC) in 2021 found that only 28% of SME owners in Kenya have a huge financial literacy level, while the majority (72%) have a low to moderate level of financial knowledge.

Previous studies have examined aspects of financial literacy and its impact, yet they often fail to directly address the specific context of micro and small business owners'

financial inclusion (Iswan, Arasa & Ntale, 2020; Gathungu & Sabana, 2018; Kodongo, 2018; Koomson et al., 2023). By narrowing down the focus to the relationship between financial literacy and financial inclusion among micro and small business owners in Nairobi County, this research bridges existing gaps in the literature (World Bank, 2022). Hence, this research sought to contribute to the existing body of knowledge by shedding light on the nuanced dynamics of financial inclusion for micro and small business owners in Nairobi County.

1.3 Objectives of the Study

1.3.1 General Objective

The general objective of this study was to determine the effect of financial literacy on financial inclusion of micro and small business owners in Nairobi County

1.3.1 Specific objectives

i. To establish the effect of savings on financial inclusion of micro and small business owners in Nairobi County.
ii. To establish the effect of debt management on financial inclusion of micro and small business owners in Nairobi County.
iii. To determine the effect of financial planning on financial inclusion of micro and small business owners in Nairobi County.
iv. To establish the effect of investments on financial inclusion of micro and small business owners in Nairobi County.

1.4 Research Hypotheses

i. H_1: There is no significant relationship between savings and financial inclusion of micro and small business owners in Nairobi County

ii. H_2: There is no significant relationship between debt management and financial inclusion of micro and small business owners in Nairobi County

iii. H_3: There is no significant relationship between financial planning and financial inclusion of micro and small business owners in Nairobi County

iv. H_4: There is no significant relationship between investments and financial inclusion of micro and small business owners in Nairobi County

1.5 Significance of the Study

From a policy viewpoint, the research can provide valuable insights into the effectiveness of policies and initiatives aimed at promoting financial inclusion among SME owners in Kenya. By understanding the factors that influence financial inclusion among SME owners, policymakers can develop targeted interventions and programs to improve access to financial services and products. Additionally, the study can inform policies aimed at promoting financial literacy among SME owners, which can help to increase their financial capability and promote their economic resilience.

From a practice perspective, the study can provide insights for financial institutions and practitioners on how to design and deliver financial services and products that are tailored to the needs of SME owners. By understanding the financial literacy levels and financial inclusion patterns of SME owners in Kenya, financial institutions can develop products and services that are appropriate for this segment of the population, and that can promote their financial inclusion.

The study will also contribute to the development of financial inclusion and financial literacy theories. By exploring the relationship between financial literacy and financial inclusion among SME owners in Kenya, the study can contribute to a better understanding of the factors that influence financial inclusion, and the mechanisms

through which financial literacy can impact financial inclusion. This knowledge can help to refine and improve existing theories of financial inclusion and financial literacy, and to inform future research in these areas.

1.6 Scope of the Study

The research considered the effect of financial literacy on financial inclusion among retail SME owners in Nairobi City Central Business District. Th study focused on four independent variables namely, the effect of saving practices, debt management practices, financial planning practices and investment practices on financial inclusion among retail SME owners in Nairobi City Central Business District. The contextual range of the research was retail SME business owners in Nairobi City Central Business District who were 13,428 in number according to a report by Kenya National Bureau of Statistics (KNBS, 2022). The sample size was 388 arrived using Yamane formula. Primary data was collected through structured questionnaires where closed ended, Likert scale questions were used. Both descriptive and inferential analysis were carried out. The research was undertaken within a period of four months from the month of October 2023 to January 2024.

1.7 Delimitations of the Study

The research was constrained to a collection of predictors and dependent variables, in particular financial literacy and financial inclusion. Predictor variables included saving practices, debt management practices, financial planning practices and investment practices while financial inclusion constituted the dependent/outcome variable. Although Nairobi County has many SME owners, the target population was retail SME business owners in Nairobi City Central Business District who are 13,428 in number according to a report by Kenya National Bureau of Statistics (KNBS,

2022). The study's findings can only be used for academic purposes. The research project was focused towards exploring financial literacy impact on financial inclusion of micro and small business owners in Nairobi County.

1.8 Limitations of the Study

While there are many forms of data which can be collected in a study, primary data was adopted in the current study. As a means of possible outliers' reduction, a structured questionnaire was used. Though this can increase the chances of having data collection that is skewed because the expected respondents are restrained in relation to the information type, they give and how they are supposed to share the information. Therefore, this study ensured that the instrument of data collection captured comprehensive data that addressed the research objective without any prejudice.

In addition, some of the interview subjects were skeptical that they were research participants. This challenge was addressed by the researcher through requesting for the obligatory approval, consents as well as permit for the various authorities including the SME owners, university as well as the National Commission of Science, Technology, and Innovation (NACOSTI). More so the research considered all the ethical required and the respondents were notified of the same.

1.9 Assumptions of the Study

One of the key assumptions was that SME owners were available and willing to provide the required information given they operate in busy and tight environments further to the fact that some of the information sought was both sensitive and confidential. Further, the researcher assumed that the sampled respondents will agree to have their responses recorded with the guarantee that the information will only be

used for the envisioned purpose. Finally, the study assumed that the management, policymakers, and other stakeholders will uphold the conclusions of this study and find it useful to guide operations as well as in decision making and policy formulation.

1.10 Theoretical Framework

The segment encompasses a review of theories describing the link amongst financial literacy and financial inclusion. The thesis was based on information asymmetry theory, behavioral economics theory and financial education theory.

1.10.1 Information Asymmetry Theory

Many studies undertaken on financial literacy are informed by information asymmetry theory. Akerlof (1970) theory holds that information asymmetry transpires whenever a party in a transaction possesses extra information than the other party. This can result in a power imbalance, as the party with less information may make decisions based on incomplete or inaccurate information (Hickman, 2020). The theory of information asymmetry postulates that in certain situations, the party with less information may take actions that are not in their best interest. This can lead to adverse selection, moral hazard, and market failure (Bergh, Ketchen, Orlandi, Heugens & Boyd, 2019).

Adverse selection occurs when the party with less information ends up choosing a product or service that is of lower quality than what they expected. Moral hazard occurs when the party with less information takes more risks because they assume that the other party will bear the cost of any negative consequences (Sugiyanto & Candra, 2019). Market failure occurs when the market is unable to efficiently allocate resources due to information asymmetry. Overall, the theory of information

asymmetry has important implications for understanding markets and the behavior of individuals and organizations within them (Hamid & Locke, 2021).

Notwithstanding, agency theory has inherent limitations. Some critics argue that the theory of information asymmetry is overgeneralized and may not apply to all markets or situations. They suggest that different markets may have different levels of information asymmetry, and that the theory may not be useful in predicting behavior in markets with low levels of information asymmetry (Andreou, Lambertides & Magidou, 2021). The theory may also not be useful in explaining all types of market failures. For example, some market failures may be caused by external factors such as government regulations, natural disasters, or political instability, rather than information asymmetry. The theory also assumes that market participants are rational and self-interested, but this may not always be the case. Behavioral economists have shown that individuals may not always make rational decisions, and may be influenced by emotions, social norms, and other factors (Hussain *et al.,* 2018).

In conclusion, by understanding the role of information asymmetry in the financial inclusion of SME owners, policymakers and financial institutions can design and implement initiatives to improve financial literacy and increase access to formal financial services. For example, financial literacy training programs can be offered to SME owners in enhancing their financial products and services, and financial institutions understanding can develop more transparent and user-friendly financial products to reduce information asymmetry and increase trust. Overall, the theory of information asymmetry can help identify the barriers to financial inclusion and inform strategies to promote financial literacy and inclusion among SME owners. As a result, information asymmetry theory is provides a sound theoretical basis for studying the effect of saving practices, debt management practices, financial planning practices

and investment practices on financial inclusion among retail SME owners in Nairobi City Central Business District.

1.10.2 Behavioral Economics Theory

Behavioral economics has contributed to our understanding of a wide range of economic phenomena, including consumer behavior, financial markets, labor markets, and public policy (Acohido, 2018). It has also led to the development of new policy tools and interventions to promote better decision-making and improve economic outcomes. Behavioral economics is a field of economics that combines insights from psychology and economics to study how individuals make economic decisions (Bhusham & Medury, 2018). The development of behavioral economics can be attributed to Kahnemann and Tversky (1974). Behavioral economics postulates that individuals often make decisions that deviate from rationality, and that these deviations can have significant effects on their economic behavior. It recognizes that individuals have cognitive biases, limited willpower, and are influenced by social norms and emotions, which can lead them to make decisions that are not in their best interest (Swieka *et al.,* 2020).

However, the theory of behavioral economics also has some shortcomings. Some critics argue that it places too much emphasis on individual decision-making and does not sufficiently account for the role of structural factors, such as market institutions and government policies, in shaping economic outcomes (Bhusham & Medury, 2018). Others suggest that it is difficult to generalize behavioral insights across different contexts and populations, and that more research is needed to understand the cultural and institutional factors that influence economic decision-making. Overall, while behavioral economics has made significant contributions to our understanding of

economic decision-making, it is important to recognize its limitations and potential biases (Acohido, 2018).

Behavioral economics theory is relevant when studying the relationship between financial literacy and financial inclusion of small and medium-sized enterprise owners. Behavioral economics recognizes that individuals may not always make rational decisions, and that their economic behavior can be influenced by cognitive biases, social norms, and emotions. This can have significant implications for financial literacy and financial inclusion of SME owners, who may face challenges in accessing formal financial services due to factors such as limited financial knowledge, risk aversion, and mistrust of financial institutions. The theory is therefore relevant when studying the effect of saving practices, debt management practices, financial planning practices and investment practices on financial inclusion among retail SME owners in Nairobi City Central Business District.

1.10.3 Financial Education Theory

The field of financial education has emerged from a variety of academic disciplines, including economics, psychology, education, and sociology. Financial education theory postulates that individuals who have greater financial knowledge and skills are better capacitated to making informed financial decisions, manage their individual finances effectively, and achieve their financial goals (Niankara & Muqattash, 2020). The theory emphasizes the importance of offering persons with the knowledge and tools they need to navigate complex financial markets and make informed financial decisions. Financial education programs may take various forms, including formal classroom instruction, workshops, and online courses. These programs may cover a

wide range of financial topics, including budgeting, saving, investing, debt management, and retirement planning (Güngen, 2018).

One potential shortcoming of financial education theory is that it assumes that individuals have the motivation and resources to engage in financial education and apply the knowledge they acquire. Individuals may face barriers to accessing financial education, such as time constraints, financial constraints, or a lack of interest or motivation (Abad-Segura & González-Zamar, 2019). Moreover, even individuals who have received financial education may not always apply their knowledge effectively in real-world financial decisions, due to factors such as cognitive biases or emotional responses (Fatoki, 2021). According to Vijayvargy and Bakhshi (2018), another potential limitation of financial education theory is that it may not address broader structural factors that contribute to financial exclusion, such as income inequality, discrimination, or inadequate financial regulation. Addressing these factors may require broader policy interventions beyond financial education. Despite these limitations, financial education theory remains an important framework for understanding the role of financial knowledge and skills in promoting financial inclusion and improving financial outcomes for individuals and households (Güngen, 2018).

Financial education theory is relevant when studying the link between SMEs financial literacy and financial inclusion. Financial education theory emphasizes the importance of providing persons with the skills and information required in making informed financial decisions, managing their personal finances proficiently, and attaining their financial goals. This is particularly important for SME owners, who may face unique challenges in accessing formal financial services and managing their business finances. By providing SME owners with financial education, policymakers and

financial institutions can help to enhance their financial literacy and increase their financial inclusion. Financial education programs can be designed to address the specific financial challenges faced by SME owners, such as cash flow management, budgeting, and accessing financing.

1.11 Conceptual Framework

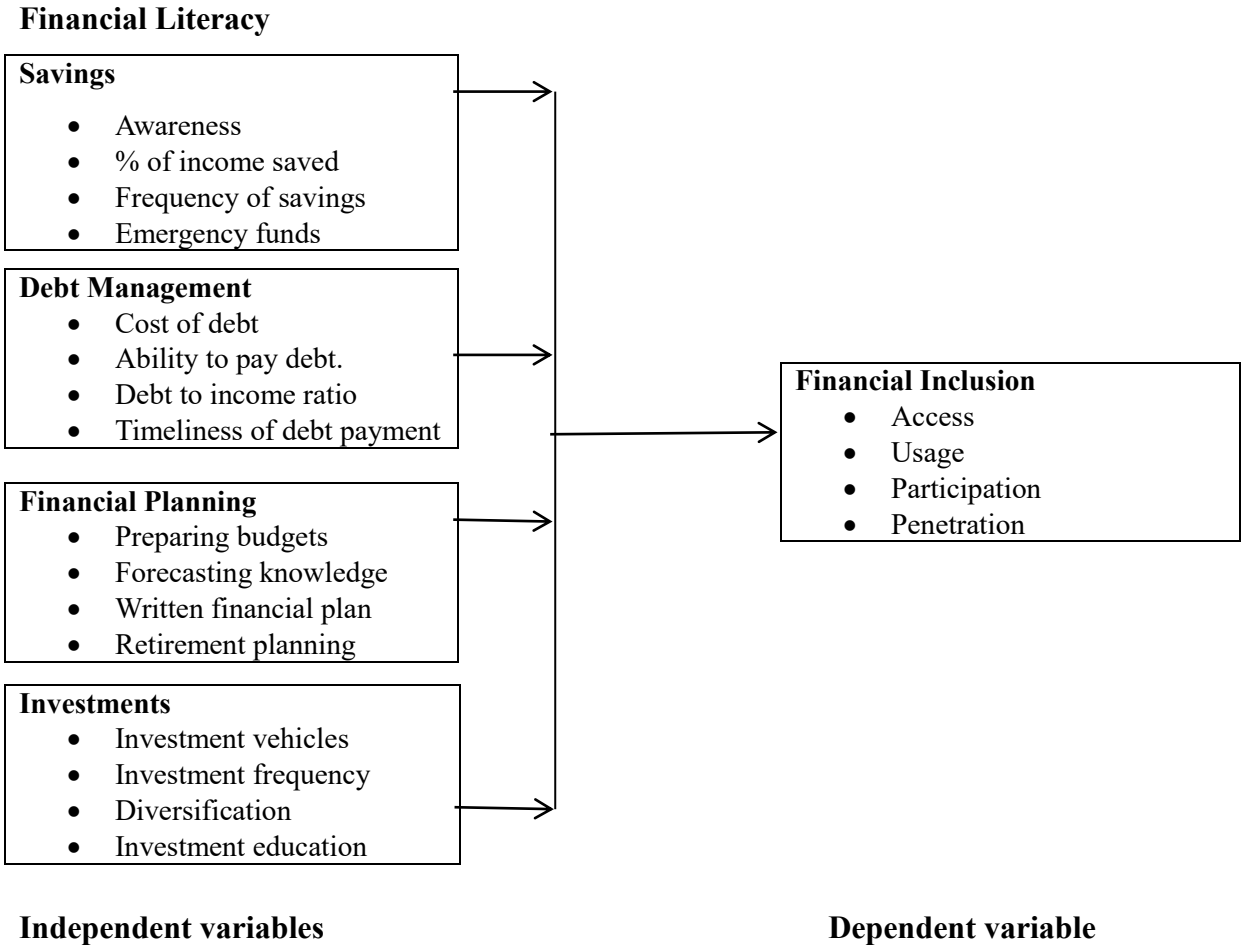


Figure 1.1: Relationship between Financial Literacy and Financial Inclusion
Source: Researcher (2024)

As 1.1 exhibit, the independent variables have an impact on the dependent variables. Empirical studies show that savings can be an important tool in promoting financial inclusion. Savings can be used to build credit, which is essential for accessing credit and other financial services. Savings can also be used to demonstrate financial stability and responsibility, which can be important factors in accessing financial

services. Moreover, savings can help individuals and households build wealth over time, promoting economic stability and well-being. By setting aside money for future use, individuals can invest in education, housing, or retirement, which can have long-term benefits for themselves and their families (Bhusham & Medury, 2018).

There is a complex link between debt management and financial inclusion. On the contrary, debt can be a barrier to financial inclusion. High levels of debt can limit an individual or business's ability to access formal financial services, as lenders may view them as high-risk borrowers. In addition, individuals and businesses with high levels of debt may be less likely to save or invest, further limiting their access to financial services (Lusardi, 2019). On the other hand, access to formal financial services can serve a crucial role in promoting effective debt management. Formal financial institutions, like banks and credit unions, can provide individuals and businesses with access to credit at lower interest rates and with better repayment terms, making it easier to manage their debts (Shibia & Kieya, 2018).

Financial planning can serve a crucial role in promoting financial inclusion by helping individuals and businesses to effectively manage their finances and access formal financial services. By setting financial goals, individuals and businesses can identify the financial products and services they need to achieve those goals, such as savings accounts, loans, or insurance (Kadongo, 2018). By creating a budget, individuals and businesses can track their income and expenses, and identify areas where they can save money or invest in their financial future. And by developing a plan to achieve their financial goals, individuals and businesses can identify the financial products and services that can help them achieve those goals, and access them more effectively (Kamakia, Mwangi & Mwangi, 2018).

There is a positive link between investments and financial inclusion (Matekenya, Moyo, & Jeke, 2021). Access to investment opportunities can serve crucial role in promoting financial inclusion by enabling individuals and businesses to build wealth over time. Investment opportunities provide individuals and businesses with a way to grow their savings and build financial stability and well-being (Iswan *et al.,* 2020). However, access to investment opportunities is often limited to those who have formal financial services access, like investment accounts and brokerage services. This can form a barricade to financial inclusion for those who lack access to these services. In addition, individuals and businesses may lack the financial literacy and knowledge needed to effectively manage their investments and make informed investment decisions, further limiting their ability to benefit from investment opportunities (Fanta & Mutsonziwa, 2021).

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

This chapter covers a review of literature from various studies performed by other scholars on the study area and the research gap that revealed what was not studied in the field of study.

2.2 Review of the Literature

This section presents a literature review based on the research objectives. This section is split on the basis of each specified objective to ensure it is reliable to the study problem. An empirical review outlines what other researchers who conducted similar studies found and resolved in identifying the gap left unstudied and consequently current research cover. An empirical review is a judgment based on tangible data. It is a mechanism through which knowledge is gained using direct and indirect experience. The researcher reviews the eventual objectives/variables to this research.

2.2.1 Savings and Financial Inclusion

Demirgüç-Kunt, Klapper and Randall (2022) sought to pursue the link between savings and financial inclusion in developing nations. The authors used data from the Global Financial Inclusion Database to analyze the association between savings behavior and financial inclusion across 148 developing countries. They also conducted a series of regression analyses to control for other factors that may influence financial inclusion, such as income and education. The study found that savings possess positive link with financial inclusion in developing countries. It also found that formal financial services utilization is higher among savers, indicating that savings can serve as a gateway to financial inclusion. The study focuses only on developing countries, so its findings may not be generalizable to other economies.

Further, the study used secondary data and thus need for a research exploiting primary data to compliment the research.

Feghali, Mora and Nassif (2021) sought to pursue savings behavior impact on financial inclusion in the United States. The authors used data from the 2013 National Financial Capability Study to analyze the link between savings behavior and financial inclusion in the United States. They used logistic regression to estimate the probability of having a bank account and using formal financial services based on savings behavior, while controlling for demographic and socioeconomic variables. The study found that savings behavior is positively linked with financial inclusion in the United States. It also found that individuals who save more are more likely to have a bank account and use formal financial services. The study is based on cross-sectional data, so it is difficult to establish causality between savings behavior and financial inclusion. Further the research was performed in a developed economy and due to differences in social and economic settings, the conclusions may not be replicated among SME owners in Nairobi.

Tambunlertchai (2018) pursued to explore savings impact on financial inclusion in Myanmar. The authors used survey data from a random sample of 1,000 households in Myanmar to analyze the connection between savings and financial inclusion. They used logistic regression to estimate the probability of using formal financial services based on savings behavior, while controlling for other factors such as income and education. The study found a positive link between savings and financial inclusion in Myanmar. It also found that savings behavior is a significant predictor of financial inclusion, and that individuals who save more are more likely to use formal financial

services. The research is based on a comparatively small sample size, that may edge its generalizability to the broader population.

Asuming, Osei-Agyei and Mohammed (2019) examines financial inclusion across 31 Sub-Saharan African countries, utilizing data from the global Findex database. It observes a notable overall increase in financial inclusion from 2011 to 2014, yet identifies significant disparities in both the extent and pace of progress among these nations. The research reveals that factors such as individual characteristics (age, education, gender, and wealth), macroeconomic indicators (GDP growth rate and the presence of financial institutions), and savings play crucial roles in predicting the level of financial inclusion within these countries. The study was carried out across countries that have a different sociocultural and economic environment than Kenya, the location of the current investigation.

Ouma, Odongo and Were (2017) investigates the impact of mobile telephony-based financial services on savings mobilization in Kenya. The research reveals that the widespread use of mobile phones for financial transactions positively influences household savings. Access to mobile financial services not only increases the likelihood of saving but also has a substantial effect on the amounts saved, possibly because of the convenience and frequency of mobile transactions. Both basic mobile phone savings stored on the device and bank-integrated mobile savings are encouraged by mobile phone usage. Consequently, expanding and enhancing the availability of mobile phone financial services emerges as a promising approach to promote savings, particularly among underserved populations with limited access to formal financial services. The study is based on a relatively small sample size, and the authors acknowledge that their findings may be subject to self-selection bias, as

households with higher incomes may be more likely to save and use formal financial services.

2.2.2 Debt Management and Financial Inclusion

Mahmood, Shuhui, Aslam and Ahmed (2022) sought to examine the association between debt management and financial inclusion among households in Pakistan. The authors used survey data from a sample of 1,000 households in Pakistan to analyze the association between debt management and financial inclusion. They used logistic regression to estimate the likelihood of using formal financial services based on debt management behavior, while controlling for other factors such as income and education. The study found that households that manage their debt well are more likely to use formal financial services and have access to credit, which in turn promotes financial inclusion. The study is based on cross-sectional data, which limits its ability to establish causality between debt management and financial inclusion. Additionally, the study does not consider the potential negative effects of debt on financial inclusion, such as over-indebtedness. This study also focused on Pakistan households which has a different social cultural and economic environment in the current research which focuses on SME business owners in Kenya.

Kishore and Lang (2020) examine the impact of debt management on financial inclusion among rural households in India. The authors used survey data from a sample of 6,932 rural households in India to analyze the relationship between debt management and financial inclusion. They used logistic regression to estimate the likelihood of using formal financial services based on debt management behavior, while controlling for other factors such as income and education. The study found that households that manage their debt well are more likely to use formal financial services and have access to credit, which in turn promotes financial inclusion. The

study is based on cross-sectional data, which limits its ability to establish causality between debt management and financial inclusion.

D'Espallier, Hudon and Szafarz (2021) investigates the association between debt and financial inclusion amongst small business owners in South Africa. The authors used survey data from a sample of 255 small business owners in South Africa to analyze the relationship between debt management and financial inclusion. They used regression analysis to estimate the impact of debt management on the likelihood of having a bank account and using formal financial services. The study found that small business owners who manage their debt well are more likely to possess a bank account and use formal financial services, which in turn promotes financial inclusion. The research is based on a relatively small sample size, and its findings may not be generalizable to other countries or contexts.

Ansong (2021) explored the debt management encounters small business owners face in Ghana. The goals were to determine the funding sources for small firms, analyze their debt management plans, and spot obstacles and other obstacles impeding their debt management activities. The sample space was created by the researcher using a random sampling technique and ten vital market business segments. The traders were chosen using the purposive sampling technique from these strata. Basic descriptive statistics and the Statistical Package for Social Science (SPSS) were used in the study to make it easier to analyze the data gathered in the field. The majority of business owners started their ventures with their own money or by selling family assets, according to the report. Others sought out financial support from friends and family before looking for outside capital to grow their enterprises. Regarding debt management strategies, it became clear that most small business owners rigorously stick to the current ratio agreements signed with banks, reinvest earnings to pay off

loans, and ensure that short-term loans are not used for long-term projects. This research did not address the effect of debt management on financial inclusion. Further, the social and economic setting of Ghana is diverse from Kenya where the current study will be steered.

Mwangi (2019) explores different metrics and definitions of financial inclusion (FI) in Kenya to address the lack of a robust and reliable FI measure, which is crucial for evidence-based policy development. The paper introduces three measures of FI based on formal usage of various financial products, including transactions, credit, savings/investments, and insurance/pension. The first measure focuses on the use of at least one formal financial product from each category, while the second creates a composite measure called the index of Financial Inclusion by combining these individual measures. The study also includes a use-case measure based on the needs framework. In 2019, the adoption rates for transactional, credit, savings, and insurance products averaged 79%, 17%, 53%, and 29%, respectively. The study is based on a relatively small sample size, which may limit its generalizability to the broader population.

2.2.3 Financial Planning and Financial Inclusion

Tello (2023) sought to assess financial literacy and financial planning program impact on the financial behavior of micro-entrepreneurs in Peru. Randomized controlled trial was utilized. The study found that the financial education program led to an increase in savings and borrowing from formal sources among micro-entrepreneurs. The program also had a positive impact on the likelihood of micro-entrepreneurs opening a bank account and using it for business purposes. The study did not assess the impact of the financial education program on other aspects of financial inclusion such as

access to insurance or other financial services. Further, the study did not establish how financial planning influences financial inclusion which is the current research focus.

Klapper, Lusardi and van Oudheusden (2022) sought to investigate the impact of financial literacy and financial planning on financial inclusion in a cross-country study covering 144 countries. Cross-country regression analysis was adopted. The study found that financial literacy and financial planning are positive linked with financial inclusion. Nations with advanced levels of financial literacy and financial planning had higher levels of account ownership, credit usage, and insurance coverage. The study did not consider the impact of other factors such as economic development or regulatory environment on financial inclusion. Further the study relied exclusively on secondary data and consequently requires research relying on primary data in complimenting the conclusions.

Masino and Niño-Zarazúa (2020) examines financial planning impact on financial inclusion in rural areas of Mexico. Randomized controlled trial was the method utilized. The study found that access to financial planning services increased the likelihood of households joining savings groups, taking loans, and accessing formal banking services. Households that received financial planning services were also more likely to report having a bank account and using it more frequently than households in the control group. The research ignored the long-term impact of financial planning on financial inclusion. Further, the research was conducted in Mexico whose social and economic scenery is diverse from Kenya.

Nsoke, Okolo, and Ofoegbu (2021) sought to examine accounting practices impact on the growth of micro and small enterprises in Nigeria. The research used primary data

and questionnaires were used for data collection. It was based on a sample size of 384 MSEs. The data was tested using percentages, mean, and standard deviation, while the hypotheses was examined by use of the regression analysis and analysis of variance. To find out how closely the two independent variables correlate, a multicollinearity test was performed. The study found that, book-keeping, accounting knowledge and financial management practices have significant effect on MSE growth in Nigeria. The finding further implied that MSEs will experience continuous growth if they acquire accounting knowledge and apply the knowledge in their financial management practices for effective business operations. The study further recommended that government and MSE owners/managers should focus more on the acquisition of book-keeping and accounting knowledge and financial management practices that can constantly lead to MSEs' growth. The study, however, focused on growth, whereas the current study focuses on financial planning and inclusion.

Fanta and Mutsonziwa (2021) investigates the relationship between financial literacy and financial inclusion in the context of Kenya and Tanzania, drawing on data from a 2016 survey involving 6029 individuals. It highlights that while many developing countries are making strides in increasing access to financial products and services, merely expanding the supply of such offerings might not be enough to boost financial inclusion. The research reveals that individuals with higher levels of financial literacy are more inclined to recognize the value of financial services and consequently engage with financial products. Instrumental variable regression analysis supports the strong connection between financial literacy and financial inclusion. As a result, the study emphasizes the importance of combining efforts to promote financial inclusion with financial literacy campaigns in both countries. The research, however, did not

examine how financial inclusion can be fostered through financial planning, which is the focus of this study.

2.2.4 Investments and Financial Inclusion

Demirguc-Kunt, Klapper, Singer and Van Oudheusden (2022) used cross-country regression analysis to examine the relationship between investment practices and financial inclusion. The authors collected data from 144 countries and used numerous variables in assessing investment practices, including the percentage of adults who own stocks, bonds, and mutual funds. They also used a range of variables to measure financial inclusion, such as the percentage of adults who have a formal bank account, the percentage of adults who have used credit in the past year, and the percentage of adults who have insurance coverage. The study found that investment in stocks, bonds, and mutual funds is positively associated with financial inclusion. Countries with higher levels of investment in these financial products had higher levels of account ownership, credit usage, and insurance coverage. The study did not assess the impact of other factors such as economic development or regulatory environment on financial inclusion.

Cull, Demirguc-Kunt and Morduch (2018) used a randomized controlled trial to evaluate the impact of financial education on investment behavior, but it was conducted in the Philippines. The authors recruited participants from a low-income population and randomly assigned them to a treatment group or a control group. The treatment group received a financial education intervention, while the control group did not. The authors collected data on investment behavior before and after the intervention and compared the behavior of the treatment and control groups. The study found that financial education increased the likelihood of individuals investing

in stocks and mutual funds. However, education had no impact on the likelihood of individuals investing in bonds or other fixed-income securities. The study did not assess the impact of investment on financial inclusion beyond the scope of the field experiment.

Akhtar (2018) used a randomized controlled trial to investigate the impact of access to investment information on investment behavior in the United States. The author recruited participants from a population of workers at a large corporation and randomly assigned them to a treatment group or a control group. The treatment group received access to an investment information website, while the control group did not. The author collected data on investment behavior before and after the intervention and compared the behavior of the treatment and control groups. The study found that providing access to investment information increased the likelihood of individuals investing in stocks and mutual funds. However, the impact was small and did not persist over time. The study did not assess the impact of investment on financial inclusion beyond the scope of the field experiment. Further, the research was conducted in the United States whose social and economic setting is diverse from Kenya.

Abebe, Tekle and Mano (2018) used a randomized controlled trial to investigate the impact of financial literacy on investment behavior in Ethiopia. The authors recruited participants from a low-income population and randomly assigned them to a treatment group or a control group. The treatment group received a financial education intervention, while the control group did not. The authors collected data on investment behavior before and after the intervention and compared the behavior of the treatment and control groups. The study found that individuals who received financial education were more likely to invest in stocks and other risky assets. The

education had a particularly strong effect on women, who were more risk-averse than men and had lower levels of financial literacy at the outset of the research. The research did not assess the impact of investment on financial inclusion beyond the scope of the field experiment.

Wafula (2018) sought to pursue financial literacy impact on financial inclusion among small-scale farmers in Trans Nzoia County. Trans Nzoia County Small- scale farmers formed target population. 384 small scale farmers in Trans Nzoia County served as sample. Questionnaires were utilized for data collection. Both descriptive and inferential statistics were applied to the data analysis. The following descriptive statistics were employed: means, standard deviation, frequencies, and percentages. Inferential statistics were utilized to establish the link between the variables using multiple linear regression. The study discovered that small-scale farmers' habits of saving, debt management, financial planning, and investment greatly influenced their ability to access and apply financial practices. The study finds a substantial and positive association between financial inclusion, investment strategies, debt management, saving habits, and financial planning services. The study, however, presents knowledge gaps. First, the study was conducted among small-scale farmers and due to their distinct nature of operations, the findings cannot be generalized to other types of businesses such as retail SMEs. In addition, the study assumed homogeneity of all small-scale farmers which is not necessarily the case. More measures of financial inclusion, especially relating to access and usage, should have been considered.

2.3 Summary of Review of Literature and Research Gaps

Based on the goals of the study and how they relate to those of other ongoing research, the empirical literature review has been examined. To make a well-informed

choice regarding the focus of this study, several studies conducted by previous researchers were examined and contrasted. After an extensive review of other recent studies, the knowledge gap was discovered. The research gaps are summarized in Table 2.1.

Table 2.1: Summary of Relevant studies and Gaps

Author	Focus of study	Key findings	Knowledge gaps	Focus of the current study
Demirgüç-Kunt, Klapper and Randall (2022)	The association between savings and financial inclusion in developing nations	The study found that savings is positively linked with financial inclusion in developing nations	The study focuses only on developing countries, so its findings may not be generalizable to other economies	This study investigated effect of financial literacy on financial inclusion of micro and small business owners in Nairobi County
Klapper, Lusardi and van Oudheusden (2022)	The impact of financial literacy and financial planning on financial inclusion in a cross-country study covering 144 countries	Findings revealed financial literacy and financial planning are positively associated with financial inclusion	The study did not consider the impact of other factors such as economic development or regulatory environment on financial inclusion.	This study investigated effect of financial literacy on financial inclusion of micro and small business owners in Nairobi County
Ansong (2021)	Debt management difficulties small business holders face in Ghana	The research established that the debt management strategies of small business holders was profit ploughing back in loan repayment pay	This study did not address the effect of debt management on financial inclusion	This study investigated effect of financial literacy on financial inclusion of micro and small business owners in Nairobi County
D'Espallier, Hudon and Szafarz (2021)	The relationship between debt and financial inclusion among small business owners in South Africa	The research discovered that small business owners who manage their debt well are more likely to have a bank account and use formal financial services, which in turn promotes financial inclusion	The research is based on a relatively small sample size, and its findings may not be generalizable to other countries or contexts	The current study investigated effect of financial literacy on financial inclusion of micro and small business owners in Nairobi County, relatively a bigger sample

Nsoke, Okolo, and Ofoegbu (2021)	Effect of accounting practices on the growth of micro and small enterprises in Nigeria	The study found that, book-keeping, accounting knowledge and financial management practices have significant effect on MSE growth in Nigeria	The study, however, focused on growth, whereas the current study focuses on financial planning and inclusion	This study investigated effect of financial literacy on financial inclusion of micro and small business owners in Nairobi County
Cull, Demirguc-Kunt and Morduch (2018)	Examined impact of financial education on investment behavior in the Philippines	The study found that financial education increased the likelihood of individuals investing in stocks and mutual funds.	The study did not assess the impact of investment on financial inclusion beyond the scope of the field experiment.	This study investigated effect of financial literacy on financial inclusion of micro and small business owners in Nairobi County
Tambunlertchai (2018)	Effect of savings on financial inclusion in Myanmar	The study found a positive relationship between savings and financial inclusion in Myanmar.	The study is based on a relatively small sample size, which may limit its generalizability to the broader population.	This study investigated effect of financial literacy on financial inclusion of micro and small business owners in Nairobi County
Wafula (2018)	Effect of financial literacy on financial inclusion of small-scale farmers	Existence of positive relationship between the study variables	The study was conducted among small-scale farmers and due their distinct nature of operations, the findings cannot be generalized to other types of businesses such as retail SMEs	This study investigated effect of financial literacy on financial inclusion of micro and small business owners in Nairobi County

Source: Researcher (2024)

CHAPTER THREE:
RESEARCH METHODOLOGY

3.1 Introduction

This chapter encompasses the research design guiding the research. It too includes research site and rationale, target population, sampling protocol, data collection instrument and procedure, and lastly the data collection and analysis and findings presentation.

3.2 Research Design

The research adopted an explanatory as well as a descriptive design to determine the effect of financial literacy on performance. Explanatory study seeks to determine a causal relation among variables (Burns & Burns, 2018). According to Cooper and Schindler (2018) an explanatory study is applicable when the researcher seeks to explain how the phenomenon operates through the identification of the underlying factors producing the change in which case the independent variable cannot be manipulated and, in this case, financial literacy practices. Descriptive design was used to describe the research variables namely savings, debt management, financial planning, and investments as well as financial inclusion in terms of their mean and standard deviations. The hypotheses of the study were tested using Spearman's correlation and regression analysis.

3.3 Research Site

The study investigated financial literacy impact on the financial inclusion of SME owners in Nairobi County because they are important to Kenya's socio-economic development. Data collection was conducted among retail SME owners who operate in Nairobi County Central Business District. The SME owners operate in different sectors namely, general business, transport and communication, agriculture sector, hospitality and manufacturing. The study's results were used to assess the effect of

savings, debt management, financial planning and investments on financial inclusion. Informed decisions and conclusive remarks were made based on the verifiable and provable findings.

3.4 Target Population

This refers to all observations of interest, for example, events of people as researcher identify (Burns & Burns, 2018). The research population was all the 13,428 retail SMEs found within the Nairobi's Central Business District (Nairobi City County, 2022). The chosen retail SMEs formed respondents of this research. The population was as shown in Table 3.1

Table 3.1: Target Population

Classification of SMEs	Population
General Business	5855
Transport and Communication	2016
Agriculture sector	1841
Hospitality	1789
Manufacturing	1927
TOTAL	**13,428**

Source: Nairobi City County (2022)

3.5 Study Sample

This section focuses on the sampling procedure adopted and the sample size for the study. The study adopted a stratified sampling technique while the sample size was arrived at using Yamane formula.

3.5.1 Sampling Procedure

Sampling refers to the procedure of selecting units from a target population (Khan, 2020). A stratified sampling methodology was used, in which the population was divided into five strata based on the industry in which the company operates. Within - stratum, simple random sampling methods were used to select a representative sample of the population. Stratified sampling allowed the researcher to sample every

subgroup in the population in a representative manner, resulting in greater statistical precision. Simple random sampling helped to prevent biased selection and ensure that each item has a fair probability of being chosen, thereby satisfying the statistical regularity principle, which states that a randomly selected sample have similar characteristics that could be generalized to the entire population.

3.5.2 Sample Size

A sample is a research target population subset where data is gathered for generalization to the entire population, while sampling is the method of selecting individuals from a sample to guarantee that the sample is representative of the entire population. The sample size is determined by many factors, including the study design and the size of the target population (Kothari, 2019). To determine the sample size, the study used the Yamane (1967) formula and a 95% confidence level assumption.

$$n = \frac{N}{1 + N(e)^2}$$

Where:

n = sample size

N = population size

e = the level of precision

1 = Constant

$$n = 13428/\ 1+ 13428(0.05)^2$$
$$= 388.43 \approx 388 \text{ retail SMEs}$$

These values are substituted into the equation above to produce 388 respondents, which served as the sample size for the present research. The size of the sample was indicated in Table 3.2.

Table 3.2: Sample Size

Classification of SMEs	Population	Sample Size
General Business	5855	169
Transport and Communication	2016	58
Agriculture sector	1841	53
Hospitality	1789	52
Manufacturing	1927	56
TOTAL	**13,428**	**388**

3.6 Data Collection

This section covers the data collection instruments utilized in the study, pilot testing of the research instruments, instrument's reliability and instrument validity.

3.6.1 Data Collection Instruments

This study collected primary data by aid of a questionnaire. When undertaking data collection in a study where the population is dispersed, the most appropriate tool for use is a questionnaire (Burns & Burns, 2008). Since this study used quantitative data, a structured questionnaire was used. Structured questionnaires make it possible to obtain categorical data that is numerical in nature. Additionally, the data items which replicate the precise research objectives namely savings, debt management, financial planning and investments were on a 5-point Likert scale and were made to be precise ad explicit so as to address the issue of ambiguity to the projected respondents.

3.6.2 Pilot Testing of Research Instruments

The research instrument accuracy and relevance are crucial. This project carried out a pilot study in that regard. A pilot research was conducted to assess the viability of carrying out a full study. This involved 39 retail SME owners (10% of the target population) who filled in the questionnaires and its accuracy tested. To prevent the research data from being compromised, the 39 respondents were not included in the final analysis. The respondents helped to estimate the time needed to fill in the

questionnaires and identified errors which were corrected before data collection. The pilot study established the research's strengths or weakness. Prior testing was established to assist in determining accuracy, clarity and suitability of the study tool.

3.6.3 Instrument Reliability

Reliability as per Cooper and Schindler (2018) is a measure that is utilized in describing the consistency overal of an instrument. A measure is said to have high dependability when it consistently yields the same results under the same circumstances. By showcasing the internal accuracy of the data collection instrument, the Cronbach alpha analysis helped in assessing how reliable the research tools are. Cronbach's Alpha is a dependable reliability metric that shows a true "base" score. Even if similar items are included in place of some of the original ones, Cronbach's Alpha is essential to a researcher in determining the validity and reliability of the questionnaire (Khan, 2018). Generally speaking, a reliability rating between 0.7 and 0.8 is considered adequate, and over 0.8 is considered remarkable. The research was subjected to this threshold.

3.6.4 Instrument Validity

According to Cooper and Schindler (2018), instrument validity refers to an instrument's ability to measure a concept as intended. When determining if the operational variables definition precisely reflects the fundamental theoretical meaning of a concept or idea, construct validity was used. The researcher adapted the questionnaire for this study in accordance with similar earlier studies in order to meet the study's objectives. On the other hand, expert advice verified the correctness of the content. To guarantee that all research variables were recorded, it was necessary to have study supervisors who carefully reviewed the questionnaire and provided

knowledgeable input. Additionally, they proofread the article to make sure the theoretical dimensions were given as they had imagined.

3.6.5 Data Collection Procedures

Before undertaking the data collection exercise, a letter of authorization was sought from Africa Nazarene University. Upon getting the authorization, a permit was gotten from the National Commission for Science, Technology, and Innovation (NACOSTI). The study used a structure questionnaire for collecting primary data. The study issued the questionnaire to selected respondents through Google forms. In case the responses through the online form were not adequate, the researcher delivered hard copy questionnaires to the respondents. To ensure that the respondents receive the issued questionnaire, care and control was exercised. The researcher kept a copy of the questionnaire register, which were issued and obtained.

3.7 Data Processing and Analysis

The process through which raw data is refined and organized in a systematic and scientific way that makes it easy to interpret and understand the data refers to data analysis (Burns & Burns, 2018). According to Kothari (2014), it involves a number of closely connected procedures that are carried out in order to summarize the data and arrange it in a way that responds to the research question. The researcher reviewed the questionnaires, counted how many there were, and ensured that they are adequate and complete. Based on their suitability, the questionnaires were sorted. Each question received a different code, which was then scored. To determine the strength of emerging patterns, the data was then loaded into a computer for analysis and summarization. Data was evaluated using descriptive statistical methods such as the mean, which is a measure of central tendency, and the standard deviation, which is

a measure of dispersion. This aided in describing the variables of the study. Correlation and regression analysis were used to assess the strength and direction of relationship among the study variables, and this answered the research questions of the study. These were run on the SPSS Version 24. The following model was adopted.

$$\mathbf{Y=\beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon}$$

Where:

Y = Financial inclusion

β_0 = Constant term

β_i = Beta coefficient of variable i measuring change Y to change in i

X_1 = Savings

X_2= Debt management

X_3= Financial planning

X_4= Investments

ε =Error term

Both descriptive and inferential statistics results were presented in tables and figures which were accompanied by pertinent interpretations and discussions.

3.8 Legal and Ethical Considerations

Requisite permits, consent, and approvals were required prior to data collection since it is an ethical requirement in research. The school granted permission to conduct the research report, and a research authorization/permit letter from the NACOSTI was sought because this is the institution in the country mandated to approve and supervise research in Kenya. Finally, approval to do the study among retail SME owners in Nairobi City County was sought from the management for concurrence and access to staff and offices to conduct study. After determining the study-specific data collection tool's reliability and validity, the principal investigator distributed

questionnaires that were self-administered so that respondents can independently answer the questions. Confidentiality and privacy was observed by not having identification information on the questionnaire and allow the respondents to fill the questionnaire in privacy as this is an ethical requirement by ANU and NACOSTI. The study protected and kept information confidential and, before revealing any information, the consent of the respondent was sought first. This ensured free flow of information without any inhibition hence guarantee accurate and reliable data for analysis in this study.

CHAPTER FOUR
DATA ANALYSIS AND FINDINGS

4.1 Introduction

This chapter presents the results from the study. The sections in this chapter include the general information section encompassing the response rate and demographic information. The chapter also outlines the descriptive and inference statistics in line with the study objectives.

4.2 Response Rate

The response rate in a study is a proportion of the entire number of received responses divided by the number of target respondents. The response rate is also denoted as the completion rate or return rate and it is usually expressed in percentage form. Information on the rate of response to this research is displayed in Table 4.1.

Table 4.1: Response Rate

Response Rate	Frequency	Percent
Returned	308	79.4
Unreturned	44	20.6
Total	**388**	**100**

Source: Researcher (2024)

According to the results of Table 4.1, a total of 308 questionnaires were administered to the respondents through Google forms that were sent via email. 308 of them were completely filled and returned. The response rate was 79.4%. Cooper and Schindler (2018) affirmed that a study with 70% response rate and above is considered good for analysis and drawing conclusions.

4.3 Demographic Analysis

This section presents the background information of the respondents in terms of gender, age, highest level of education and years of experience. The results are as presented in Table 4.2. The gender distribution in Table 4.2 reveals that 53.2% of the respondents are male, while 46.8% are female among micro and small business

owners in Nairobi County. This suggests a potential gender imbalance in the study, influencing the generalizability of findings. Policymakers should take note of these proportions when designing financial inclusion initiatives, recognizing potential gender-specific challenges and preferences in areas such as financial literacy, saving practices, debt management, financial planning, and investment practices among business owners.

The results also illustrate the age composition of the respondents in the study. The breakdown is as follows: 3.9% of respondents are under 30 years, 15.3% are aged 31-35, 20.8% fall within the 36-40 age range, 26.9% are between 41-45 years, 26.3% are aged 46-50, and 6.8% are over 50 years old. The data indicates a diverse representation across age groups, allowing for a comprehensive understanding of financial inclusion among different generations of business owners. Policymakers and researchers should consider these age-specific variations when formulating strategies, as distinct age cohorts may exhibit unique financial needs and behaviors.

The results further outline the distribution of respondents based on their highest level of education. The breakdown is as follows: 13.3% of respondents have a high school education, 30.5% hold a diploma, 28.9% possess a degree, 19.8% have completed postgraduate education, and 7.5% fall into the 'Other' category. This diverse educational profile underscores the importance of considering varying levels of formal education in financial inclusion initiatives. Policymakers and researchers should acknowledge that individuals with different educational backgrounds may have distinct financial literacy levels and requirements, necessitating tailored approaches to ensure inclusivity across the spectrum of educational attainment.

The results further present the distribution of respondents based on the number of years at their current position. The breakdown is as follows: 2.6% of respondents have been in their current position for less than 1 year, 4.5% for 1-3 years, 52.6% for 4-7 years, and 40.3% for 8 years and above. This data emphasizes the varied experience levels among business owners, suggesting a mix of both relatively new entrants and more seasoned professionals. Policymakers and researchers should recognize this diversity in professional experience when designing financial inclusion strategies, as the needs and challenges faced by business owners may evolve over time in their respective roles.

Table 4.2: Gender Distribution

Gender	**Frequency**	**Percentage**
Male	164	53.2%
Female	144	46.8%
Total	**308**	**100%**
Age	**Frequency**	**Percentage**
Below 30 years	12	3.9%
31-35 years	47	15.3%
36-40 years	64	20.8%
41-45 years	83	26.9%
46-50 years	81	26.3%
Over 50 years	21	6.8%
Total	**308**	**100%**
Education	**Frequency**	**Percentage**
High school	41	13.3%
Diploma	94	30.5%
Degree	89	28.9%
Postgraduate	61	19.8%
Other	23	7.5%
Total	**308**	**100%**
Number of years	**Frequency**	**Percentage**
Less than 1 year	8	2.6%
1-3 years	14	4.5%
4-7 years	162	52.6%
8 years and above	124	40.3%
Total	**308**	**100%**

Source: Researcher (2024)

4.4 Diagnostic Tests

Prior to data analysis, the tests below were performed with the intention of testing and identifying transgression of any type to regression assumptions.

4.4.1 Normality Tests

Data is usually assumed to be normally distributed in statistical analysis such as T-tests, F, Z. To assess normality, Shapiro-Wilks, Lilliefors and Kolmogorov- Smirnov are the most frequently used test. It is common that in most situations, data tends to deviate from normality. Data can be viewed with graphical methods to roughly assess normality but, graphical methods do not test the significance of the differences between the sample distribution and the normal distribution (Burns & Burns, 2018).

The Shapiro-Wilks test was used to test for normality. The study tested the null hypothesis that the disturbances were not normally distributed. If the p-value was < 0.05, then we failed to reject the null hypothesis at the 5% level. However, if the p-value calculated was >0.05 the error variance was normally distributed. Table 4.3 displays the results of the normality test. The results reveal that the data was normally distributed and therefore fit for conducting regression analysis.

Table 4.3 Test of Normality

		Shapiro-Wilk	
Study variables	Statistic	Df	Sig.
Saving practices	.881	308	.723
Debt management practices	.892	308	.784
Financial planning practices	.918	308	.822
Investment practices	.874	308	.812
Financial inclusion	.876	308	.826

Source: Researcher (2024)

4.4.2 Multicollinearity Test

Multicollinearity is defined as situations where the independent variables are greatly related. Where two or more independent variables are related, it leads to collapse of the regression model since both variables must be dropped from the model (Kothari, 2019). This research adopted the Variance Inflation Factor (VIF) to establish multicollinearity. Where multicollinearity is present in a set of data, the confidence interval for coefficients are usually very wide and the t-statistics is usually very small. The presence of multicollinearity between predictor variables can adversely affect the regression results of a study. A common understanding is that the VIF should be in a range of 1-10. VIF of more than 10 indicates that there is high correlation. Table 3.4 reveals the results of Multicollinearity.

Table 4.4: Test of Multicollinearity

Variable	VIF	Tolerance
Saving practices	1.30	0.771
Debt management practices	1.27	0.785
Financial planning practices	1.43	0.699
Investment practices	1.02	0.978
Mean VIF	1.26	

Source: Researcher (2024)

4.4.3 Test of Homogeneity Variance

The assumptions of homogeneousness of variance is the supposition of the predictor samples t-test and Analysis of Variance (ANOVA) asserting that all assessment groups have the same group. The independent samples t-test and ANOVA use the *t* and *F* statistics correspondingly, which are usually sensitive to violation of the assumptions provided the unit amounts are equivalent (Cooper & Schindler, 2018).

The linear regression model supposes that the error term is homoscedastic i.e. it has a constant variance. According to (Khan, 2020), there should be equal variance of

errors across all levels of the predictor (independent) variables. It is therefore assumed that the errors are spread out evenly or consistently across the variables of the study. If error variance is not constant, this means there is heteroscedasticity in the data and this may lead to misrepresentation of outcomes that deteriorate the general exploration and the numerical command of the scrutiny. This leads to erroneous and biased results. Breusch-Pagan / Cook-Weisberg test for heteroscedasticity was used to test for homoscedasticity of the residuals. The results in Table 3.5 indicate that the null hypothesis of Homoscedastic error terms is not rejected as supported by a p-value of 0.1713.

Table 4.5: Heteroscedasticity Test

Breusch-Pagan / Cook-Weisberg test for heteroscedasticity		
chi2(1)	=	0.3682
Prob > chi2	=	0.1713

Source: Researcher (2024)

4.5 Descriptive Statistics

Descriptive statistics allowed the researcher to analyse and interpret the mean and standard deviation of the data, providing a clear understanding of the distribution and patterns within the dataset. They also provided a foundation for further inferential statistical analyses and decision-making in the research process. Respondents rated their level of agreement on the provided statements on a 5-point Likert scale. Each sub-section presents the descriptive statistics in terms of mean and standard deviations.

4.5.1 Saving Practices

Table 4.6 provides descriptive statistics on saving practices among micro and small business owners in Nairobi County, offering a nuanced understanding of their

financial behaviours. The mean scores and standard deviations for various statements related to saving practices are as follows:

Table 4.6: Descriptive Statistics on Saving Practices

Statements	N	Mean	Std. Dev
I regularly set aside a portion of my income for savings.	308	3.86	0.81
I have a well-defined savings goal or plan.	308	4.05	0.77
I find it easy to save money for unexpected expenses.	308	3.91	0.95
I am disciplined in not dipping into my savings for non-essential purchases.	308	4.09	0.60
I feel that my savings are growing over time.	308	4.05	0.77
I am confident in my ability to achieve my savings goals.	308	4.64	0.48
Overall mean Score	**308**	**4.10**	**0.57**

Source: Researcher (2024)

The respondents, on average, scored 3.86 (mean) with a standard deviation of 0.81, indicating a generally positive inclination towards setting aside a portion of their income for savings. This suggests a moderate level of commitment to regular savings among the business owners. The mean score of 4.05 with a standard deviation of 0.77 implies that business owners tend to have well-defined savings goals or plans. This suggests a proactive and goal-oriented approach to savings, contributing to financial discipline.

With a mean score of 3.91 and a standard deviation of 0.95, respondents' express moderate confidence in saving money for unexpected expenses. The higher standard deviation indicates some variability in the ease experienced by different individuals. Respondents, on average, scored 4.09 with a low standard deviation of 0.60, suggesting a high level of discipline in not using savings for non-essential purchases. This indicates a strong commitment to preserving savings for their intended purposes.

The mean score of 4.05, along with a standard deviation of 0.77, indicates that respondents generally perceive their savings to be growing over time. This positive

perception may contribute to continued motivation for savings. Business owner's express high confidence in their ability to achieve savings goals, as reflected by the mean score of 4.64 and a low standard deviation of 0.48. This suggests a strong belief in their financial capabilities and planning skills.

The overall mean score for saving practices is 4.10, with a low standard deviation of 0.57, indicating a generally positive and consistent approach to saving among the surveyed business owners. In conclusion, the descriptive statistics suggest that micro and small business owners in Nairobi County exhibit a commendable level of commitment, discipline, and confidence in their saving practices. The findings imply that interventions aimed at promoting financial literacy and saving behaviours may benefit from building on these existing positive attitudes towards savings.

4.5.2 Debt Management Practices

Table 4.7 presents descriptive statistics on debt management practices among micro and small business owners in Nairobi County. The mean scores and standard deviations for various statements related to debt management practices are as follows:

Table 4.7: Descriptive Statistics for Debt Management Practices

Statements	N	Mean	Std. Dev
I carefully consider the terms and interest rates before taking on debt.	308	4.09	0.67
I make regular and timely payments on my debts.	308	3.95	0.71
I have a strategy for paying down my debts.	308	3.68	1.14
I am comfortable with my current level of debt.	308	3.64	0.88
I prioritize paying off high-interest debts.	308	4.09	0.73
I am confident in my ability to manage my debts effectively.	308	3.95	0.88
Overall Mean Score	**308**	**3.90**	**0.72**

Source: Researcher (2024)

Respondents, on average, scored 4.09 with a standard deviation of 0.67, indicating a high level of careful consideration of terms and interest rates before taking on debt. This suggests a prudent approach to debt decision-making. With a mean score of 3.95 and a standard deviation of 0.71, business owners demonstrate a commitment to making regular and timely payments on their debts. This reflects a responsible attitude towards debt repayment.

The mean score of 3.68, coupled with a higher standard deviation of 1.14, suggests some variability in having a strategy for paying down debts. While the average score is moderate, the higher standard deviation indicates differing levels of strategic planning among respondents. Respondents, on average, scored 3.64 with a standard deviation of 0.88, indicating a moderate level of comfort with their current level of debt. The higher standard deviation suggests varying comfort levels among business owners.

The mean score of 4.09, along with a standard deviation of 0.73, indicates a strong inclination among business owners to prioritize paying off high-interest debts. This reflects a prudent approach to minimizing overall debt costs. Business owners' express confidence in their ability to manage debts effectively, with a mean score of 3.95 and a standard deviation of 0.88. This suggests an overall positive perception of their debt management skills.

The overall mean score for debt management practices is 3.90, with a standard deviation of 0.72. This suggests a generally positive approach to debt management among the surveyed business owners. In conclusion, the descriptive statistics indicate that micro and small business owners in Nairobi County exhibit responsible and careful debt management practices. While there is some variability in strategic

planning and comfort levels with debt, the overall positive attitudes towards considering terms, making timely payments, and prioritizing high-interest debts provide a foundation for effective debt management interventions.

4.5.3 Financial Planning Practices

Table 4.8 presents descriptive statistics on financial planning practices among micro and small business owners in Nairobi County. The mean scores and standard deviations for various statements related to financial planning practices are as follows: Respondents, on average, scored 3.73 with a standard deviation of 0.91, indicating a moderate level of engagement in creating budgets to manage personal and business finances. The higher standard deviation suggests variability in budgeting practices among the surveyed business owners. With a mean score of 3.73 and a lower standard deviation of 0.62, business owners demonstrate a consistent effort to regularly review and adjust their financial goals and plans. This suggests a proactive approach to adapting financial strategies over time.

Table 4.8: Descriptive Statistics for Financial Planning Practices

Statements	N	Mean	Std. Dev
I create a budget to manage my personal and business finances.	308	3.73	0.91
I regularly review and adjust my financial goals and plans.	308	3.73	0.62
I involve financial professionals in helping with my financial planning.	308	3.86	0.55
I track my expenses to ensure they align with my financial goals.	308	3.14	0.87
I have a retirement savings plan in place.	308	3.95	0.56
I am confident that my financial planning is helping me achieve my objectives.	308	3.82	0.72
Overall Mean Score	**308**	**3.70**	**0.50**

Source: Researcher (2024)

The mean score of 3.86, coupled with a low standard deviation of 0.55, indicates a moderate level of involvement of financial professionals in helping with financial planning. This suggests a balanced reliance on professional advice. Respondents, on average, scored 3.14 with a standard deviation of 0.87, indicating a moderate level of tracking expenses to ensure alignment with financial goals. The higher standard deviation suggests varying degrees of emphasis on expense tracking among business owners.

The mean score of 3.95, along with a low standard deviation of 0.56, suggests a high level of adoption of retirement savings plans among business owners. This reflects a positive attitude towards long-term financial planning. Business owners' express confidence in their financial planning, with a mean score of 3.82 and a standard deviation of 0.72. This indicates an overall positive perception of the effectiveness of their financial planning efforts.

The overall mean score for financial planning practices is 3.70, with a low standard deviation of 0.50. This suggests a generally positive approach to financial planning among the surveyed business owners, with relatively low variability in responses. In conclusion, the descriptive statistics indicate that micro and small business owners in Nairobi County exhibit a moderate to high level of engagement in financial planning practices. While there is some variability in budgeting, expense tracking, and involvement of financial professionals, the overall positive attitudes towards regular review, retirement savings planning, and confidence in financial planning contribute to a foundation for effective financial planning interventions.

4.5.4 Investment Practices

Table 4.9 provides descriptive statistics on investment practices among micro and small business owners in Nairobi County, offering insights into their behaviors and attitudes toward investments. The mean scores and standard deviations for various statements related to investment practices are as follows:

Table 4.9: Descriptive Statistics for Investment Practices

Statements	N	Mean	Std. Dev
I actively seek out investment opportunities for my savings.	308	3.73	0.62
I diversify my investments to manage risk.	308	3.64	0.71
I stay informed about the performance of my investments.	308	3.36	0.88
I am willing to take calculated risks for potentially higher returns.	308	4.05	0.56
I have a long-term investment strategy.	308	3.64	0.77
I feel that my investments are helping me grow my wealth and achieve my financial goals.	308	4.41	0.49
Overall Mean Score	**308**	**3.80**	**0.47**

Source: Researcher (2024)

Respondents, on average, scored 3.73 with a standard deviation of 0.62, indicating a moderate level of activity in seeking out investment opportunities for their savings. This suggests a proactive approach to wealth creation through investments. With a mean score of 3.64 and a standard deviation of 0.71, business owners demonstrate a moderate inclination toward diversifying their investments to manage risk. This reflects a balanced approach to mitigating potential financial losses.

The mean score of 3.36, coupled with a higher standard deviation of 0.88, suggests variability in staying informed about the performance of investments. While the average score is moderate, the higher standard deviation indicates differing levels of attention to investment performance among respondents. Respondents, on average, scored 4.05 with a low standard deviation of 0.56, indicating a high willingness to

take calculated risks for potentially higher returns. This suggests a generally risk-tolerant attitude among business owners.

The mean score of 3.64, along with a standard deviation of 0.77, indicates a moderate level of adoption of a long-term investment strategy. This reflects a balanced approach to balancing short-term gains and long-term wealth accumulation. Business owners express high confidence in the effectiveness of their investments, with a mean score of 4.41 and a low standard deviation of 0.49. This suggests a strong belief that their investments are contributing significantly to wealth growth and the achievement of financial goals.

The overall mean score for investment practices is 3.80, with a low standard deviation of 0.47. This indicates a generally positive and consistent approach to investment practices among the surveyed business owners. In conclusion, the descriptive statistics suggest that micro and small business owners in Nairobi County exhibit a positive and proactive approach to investment practices. While there is some variability in staying informed about investment performance, the overall positive attitudes towards seeking opportunities, diversification, risk-taking, and the belief in the effectiveness of investments contribute to a foundation for effective investment interventions.

4.5.5 Financial Inclusion

Table 4.10 presents the descriptive statistics for various statements related to financial inclusion among micro and small business owners in Nairobi County. Upon examining the mean scores, it is evident that respondents generally hold a moderate level of agreement with the statements. For example, when asked about having access to a variety of financial services, the average score was 2.86, suggesting a moderate inclination towards agreement. A similar pattern is observed in responses to the

statement assessing feelings of financial empowerment, which garnered an average score of 3.00.

Table 4.10: Descriptive Statistics for Financial Inclusion

Statements	N	Mean	Std. Dev
I have access to a range of financial services, such as banking and credit facilities.	308	2.86	1.01
I feel financially empowered and in control of my economic well-being.	308	3.00	0.85
I can easily obtain loans or credit when needed for business or personal purposes.	308	3.32	0.92
I have the necessary knowledge to make informed financial decisions.	308	2.77	0.90
I regularly save and invest for my future financial goals.	308	3.45	1.08
I feel financially secure and capable of weathering unexpected financial challenges.	308	4.09	0.67
Overall Mean Score	**308**	**3.25**	

Source: Researcher (2024)

However, the survey reveals variations in respondents' perceptions across different dimensions of financial inclusion. Notably, statements related to credit accessibility and financial security received higher mean scores. The statement addressing the ease of obtaining loans or credit received a relatively elevated mean score of 3.32, indicating a more positive perception regarding credit availability. Moreover, the statement pertaining to feeling financially secure and capable of handling unexpected financial challenges obtained the highest mean score at 4.09, suggesting a strong consensus among respondents regarding their financial security.

In summary, while the overall agreement with statements on financial inclusion is moderate, the nuances in responses highlight specific areas of concern and confidence among micro and small business owners in Nairobi County. Policymakers and

financial institutions can leverage these insights to tailor targeted interventions that address the distinct needs and challenges faced by this demographic.

4.6 Inferential Statistics

Inferential statistics were conducted to establish the relationship between financial literacy and financial inclusion of the retail SME owners in Nairobi City County and to determine the joint effect of the various components of financial literacy on financial inclusion among retail SME owners in Nairobi City County. The inferential statistics carried out were correlation analysis and multiple regression analysis. The results are as shown in the sections that follow.

4.6.1 Correlation Analysis for Financial Literacy and Financial Inclusion

Correlation analysis was done to establish the association between financial literacy and financial inclusion. The findings were as shown in Table 4.11. The correlation findings showed that the relationship between saving practices and financial inclusion is positive as well as significant ($r=0.711$, $p<0.05$). This is an indication that saving practices leads to improved financial inclusion. The correlation findings too show a strong and significant association between financial inclusion and debt management practices as revealed by a 0.562 Pearson correlation coefficient as well as a 0.000 P-value. This is a sign that better debt management practices lead to higher financial inclusion.

Furthermore, the correlation findings show a strong and significant relationship between financial inclusion and financial planning practices, as shown by a 0.909 Pearson correlation coefficient as well as a 0.000 P-value. This is an indication that a rise in financial planning practices yields an increase in financial inclusion. Finally, the correlation findings reveal a significant connection between investment practices

and financial inclusion, as shown by a 0.946 Pearson correlation and a 0.000 P value. This is an indication that improvement in investment practices is linked to an increase in financial inclusion.

Table 4.11: Correlation Matrix for Financial Literacy and Financial Inclusion

		Financial inclusion	Saving practices	Debt management practices	Financial planning practices	Investment practices
Financial inclusion	Pearson Correlation	1				
	Sig. (2-tailed)					
Saving practices	Pearson Correlation	.711**	1			
	Sig. (2-tailed)	.000				
Debt management practices	Pearson Correlation	.562**	.892**	1		
	Sig. (2-tailed)	.000	.000			
Financial planning practices	Pearson Correlation	.909**	.729**	.626**	1	
	Sig. (2-tailed)	.000	.000	.000		
Investment practices	Pearson Correlation	.946**	.741**	.663**	.917**	1
	Sig. (2-tailed)	.000	.000	.000	.000	

**. Correlation is significant at the 0.01 level (2-tailed).
b. Listwise N=308

Source: Researcher (2024)

4.6.2 Regression Analysis for Financial Literacy and Financial Inclusion

Multiple regression analysis was done in determining the effect of financial literacy (saving practices, debt management practices, financial planning practices and investment practices) on financial inclusion among retail SME owners in Nairobi City County. The model fitness findings were as exhibited in Table 4.12.

Table 4.12: Overall Model Fitness

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.963[a]	.928	.927	.224362

a. Predictors: (Constant), Investment practices, Debt management practices, Saving practices, financial planning practices

Source: Researcher (2024)

The findings reveal that the R square was 0.928 which suggested that financial literacy (saving practices, debt management practices, financial planning practices and investment practices) explain 92.8% of the variation in financial inclusion.

Table 4.13: ANOVA Results for the Overall Model

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	197.370	4	49.343	980.216	.000[b]
	Residual	15.253	303	.050		
	Total	212.623	307			

a. Dependent Variable: Financial inclusion

b. Predictors: (Constant), Investment practices, Debt management practices, Saving practices, Financial planning practices

Source: Researcher (2024)

The ANOVA results in Table 4.13 indicated that the overall model used to assess the relationship between financial literacy (saving practices, debt management practices, financial planning practices and investment practices) and financial inclusion was significant. This was supported by a significance level of 0.000 which was less than 0.05 at 95% confidence level.

The extent of the effect of saving practices, debt management practices, financial planning practices and investment practices on financial inclusion is demonstrated by regression coefficient results.

Table 4.14: Regression Coefficients for the Overall Model

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.101	.112		9.834	.000
	Saving practices	.225	.029	.299	7.665	.000
	Debt management practices	.405	.041	.337	9.773	.000
	Financial planning practices	.198	.038	.206	5.190	.000
	Investment practices	.728	.039	.759	18.834	.000

a. Dependent Variable: Financial inclusion

The multiple regression model used is illustrated below:

$$\mathbf{Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon,}$$

Where,

Y denoted financial inclusion

β_0 denoted the constant

X_1 represented saving practices

X_2 represented debt management practices

X_3 denoted financial planning practices

X_4 denoted investment practices

ε was the error term when there was assumed normal distribution

$\beta_1, \beta_2, \beta_3, \beta_4$ denote independent variable coefficients

The regression model was substituted as below.

$$\mathbf{Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon,}$$

$$\mathbf{Y = 1.101 + 0.225 X_1 + 0.405 X_2 + 0.198 X_3 + 0.728 X_4}$$

Interpretatively, a unit change in saving practices, debt management practices, financial planning practices and investment practices will lead to a 0.225, 0.405, 0.198 and 0.728 change in financial inclusion respectively, whereas variables that

were not part of this research remained unchanged. The four factors included in this research were critical for improving financial inclusion. It is evident that the most essential element is investment practices (β_4=0.728) while the least important was financial planning practices (β_3=0.198). It was also shown that if the four variables chosen for this research were held constant, financial inclusion would still be significant ($\beta = 1.101$, $p < 0.05$). This implies that management and policy makers should ensure they enhance debt management practices,saving practices, financial planning practices as well as investment practices as this will improve financial inclusion.

4.7 Hypothesis Testing

The hypotheses were tested using regression analyses. The acceptance/rejection criteria were that, if the p value is greater than 0.05, the Ho is not rejected but if it's less than 0.05, the Ho is rejected.

4.7.1 Saving Practices and Financial Inclusion

The first null hypothesis in this current study, H_{01}, stated: saving practices has no significant effect on financial inclusion among retail SME owners in Nairobi City County. Results in Table 4.14 show that the p-value was 0.000<0.05. This indicates that the null hypothesis is rejected hence there is a significant effect of saving practices on financial inclusion among retail SME owners in Nairobi City County. Saving practices was positively and significantly related with financial inclusion among retail SME owners in Nairobi City County (β=0.225, p=0.000). The study results show that saving practices is a significant factor affecting financial inclusion.

4.7.2 Debt Management Practices and Financial Inclusion

The second null hypothesis in this current study, H_{02}, stated: debt management practices has no significant effect on financial inclusion among retail SME owners in Nairobi City County. Results in Table 4.14 show that the p-value was 0.000<0.05. This indicates that the null hypothesis is rejected hence there is a significant effect of debt management practices on financial inclusion among retail SME owners in Nairobi City County. Debt management practices was positively and significantly related with financial inclusion among retail SME owners in Nairobi City County (β=0.405, p=0.000). The study results show that debt management practices is a significant factor affecting financial inclusion.

4.7.3 Financial Planning Practices and Financial Inclusion

The third null hypothesis in this study, H_{03}, stated: financial planning practices has no significant effect on financial inclusion among retail SME owners in Nairobi City County. Results in Table 4.14 show that the p-value was 0.000<0.05. This indicates that the null hypothesis is rejected hence there is a significant effect of financial planning practices on financial inclusion among retail SME owners in Nairobi City County. Financial planning practices were positively and significantly related with financial inclusion among retail SME owners in Nairobi City County (β=0.198, p=0.000). The study results show that financial planning practices are a significant factor affecting financial inclusion.

4.7.4 Investment Practices and Financial Inclusion

The fourth null hypothesis in this current study, H_{04}, stated: investment practices have no significant effect on financial inclusion among retail SME owners in Nairobi City County. Results in Table 4.14 show that the p-value was 0.000<0.05. This indicates

that the null hypothesis is rejected hence there is a significant effect of investment practices on financial inclusion among retail SME owners in Nairobi City County. Investment practices was positively and significantly related with financial inclusion among retail SME owners in Nairobi City County (β=0.728, p=0.000). The study results show that investment practices is a significant factor affecting financial inclusion.

CHAPTER FIVE
DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a discussion, summary, conclusion, and recommendations. The discussion, summary, conclusion, recommendations for improvements for the study are presented in line with the study research objectives. Recommendations for further research are also presented in this chapter.

5.2 Summary of Main Study Findings

The study's purpose was to establish the effect of financial literacy practices on financial inclusion among retail SME owners in Nairobi City County. The specific research objectives were; to establish the effect of saving practices on financial inclusion of retail SME owners in Nairobi City County, to determine the effect of debt management practices on financial inclusion of retail SME owners in Nairobi City County, to establish the effect of financial planning practices on financial inclusion of retail SME owners in Nairobi City County and to determine the effect of investment practices on financial inclusion of retail SME owners in Nairobi City County.

Both a descriptive and an explanatory research design were used in this research. The target population comprised of all the 13,428 small and micro retail businesses owners operating in Nairobi City Central Business District. Yamane formula was used to arrive at the sample size of 388. Descriptive statistics, regression analysis as well as correlation analysis were used in analyzing the data. SPSS version 24 was utilized in data analysis. Descriptive statistics were applied in describing the mean and the standard deviations for the study findings. The inferential statistics on the other hand

helped determine the relationship between saving practices, debt management practices, financial planning practices, investment practices and financial inclusion.

Regarding saving practices, the study found a positive and significant influence on financial inclusion (β=0.225, p=0.000). Business owners who regularly set aside a portion of their income for savings, had well-defined savings goals, and demonstrated disciplined savings behaviors were more likely to experience enhanced financial inclusion. The positive correlation between saving practices and financial inclusion aligns with existing literature, reinforcing the notion that cultivating a savings culture is a key driver for improved financial engagement.

Debt management practices were identified as another significant factor contributing positively to financial inclusion (β=0.405, p=0.000). Business owners who carefully considered the terms and interest rates before taking on debt, made timely payments, and had effective strategies for paying down debts were more likely to experience increased financial inclusion. This aligns with findings from other empirical studies that emphasize the importance of responsible debt management in promoting broader financial access and utilization of formal financial services.

The study highlighted the positive impact of financial planning practices on financial inclusion (β=0.198, p=0.000). Micro and small business owners who engaged in comprehensive financial planning, including budget creation, regular review of financial goals, and involvement of financial professionals, were more likely to achieve enhanced financial inclusion. This aligns with the notion that having a structured and proactive approach to financial planning positively influences overall financial well-being.

Investment practices were identified as a significant factor positively influencing financial inclusion (β=0.728, p=0.000). Business owners actively seeking investment opportunities, diversifying their investments, staying informed about performance, and being willing to take calculated risks were more likely to experience increased financial inclusion. This finding resonates with existing literature emphasizing the role of diversified and informed investment strategies in contributing to overall financial inclusion.

5.3 Discussions

The general objective of the study was to investigate the influence of financial literacy practices on financial inclusion of retail SME owners in Nairobi City County. The dependent variable was financial inclusion which was represented by likert scale questions. The independent variables were saving practices, debt management practices, financial planning practices and investment practices. Information asymmetry theory, behavioral economics theory and financial education theory were adopted to anchor the study. Both a descriptive and an explanatory research design were used in this research. The target population comprised of all the 13,428 small and micro retail businesses owners operating in Nairobi City Central Business District. Yamane formula was used to arrive at the sample size of 388.

Primary data was collected using a structured questionnaire administered to 308 respondents among retail SME owners in Nairobi City County using Google forms. Through the researcher's follow ups 308 questionnaires were collected giving 79.4% response rate. Descriptive statistics, correlation and regression analyses were carried out in data analysis. A simple linear regression model and t-statistic were used to

establish the relative importance of each independent variable in influencing financial inclusion.

5.3.1 Saving Practices and Financial Inclusion

The first objective of the current study was to assess the influence of saving practices on financial inclusion of retail SME owners in Nairobi City County. Results demonstrate that retail SME owners in Nairobi City County have adopted saving practices to a great extent. This is supported by the fact that on a five-point likert scale, the mean scores for attributes related to saving practices were greater than 3. The descriptive results further revealed that micro and small business owners in Nairobi County exhibit a commendable level of commitment, discipline, and confidence in their saving practices. The findings imply that interventions aimed at promoting financial literacy and saving behaviors may benefit from building on these existing positive attitudes towards savings.

The correlation analysis conducted was aimed at testing the association between the saving practices and financial inclusion. These results revealed a significant positive association between saving practices and financial inclusion. The null hypothesis was rejected, and conclusion made that saving practices significantly influenced financial inclusion among retail SME owners in Nairobi City County. The results established that a unit change in saving practices would result in 0.225 change of financial inclusion. This was a confirmation also that there was a significant positive influence of saving practices on financial inclusion of retail SME owners in Nairobi City County.

The study's finding aligns with existing empirical studies in the field. Demirgüç-Kunt, Klapper, and Randall (2022) research across 148 developing countries revealed a

positive association between savings behavior and financial inclusion, emphasizing that savings can act as a gateway to utilizing formal financial services. Feghali, Mora, and Nassif (2021), focusing on the United States, similarly found a positive link between savings behavior and financial inclusion, highlighting that individuals who save more are more likely to have a bank account and use formal financial services. While Tambunlertchai (2018) study in Myanmar supported a positive connection between savings and financial inclusion, it is crucial to note that each study had unique contexts, methodologies, and limitations.

5.3.2 Debt Management Practices and Financial Inclusion

The second objective of the current study was to evaluate the influence of debt management practices on the financial inclusion of retail SME owners in Nairobi City County. The descriptive analysis findings revealed that retail SME owners in Nairobi City County had adopted debt management practices. The descriptive results further indicate that micro and small business owners in Nairobi County exhibit responsible and careful debt management practices. While there is some variability in strategic planning and comfort levels with debt, the overall positive attitudes towards considering terms, making timely payments, and prioritizing high-interest debts provide a foundation for effective debt management interventions.

Correlation analysis done to test the strength of the association between debt management practices and financial inclusion of retail SME owners in Nairobi City County, the results established a positive and strong association between the two variables. The findings also implied that an increase in debt management practices would result to an increase in financial inclusion. Results also established that a unit change in debt management practices would result in 0.405 units change in financial

inclusion of retail SME owners in Nairobi City County. This confirmed the significant influence of debt management practices on financial inclusion. The null hypothesis was rejected, and a conclusion made that debt management practices had a significant influence on financial inclusion among retail SME owners in Nairobi City County.

The study's findings are supported by various empirical studies across different contexts. Mahmood et al. (2022) research in Pakistan, focusing on households, revealed a positive association between effective debt management and financial inclusion, emphasizing that well-managed debt increases the likelihood of using formal financial services and accessing credit, thereby promoting financial inclusion. Similarly, Kishore and Lang (2020) study in rural India found that households proficient in debt management are more likely to use formal financial services and have access to credit, contributing to enhanced financial inclusion.

D'Espallier, Hudon, and Szafarz (2021) investigation among small business owners in South Africa further supports the positive link between effective debt management and financial inclusion. The consistent positive association between debt management practices and financial inclusion underscores the importance of promoting sound debt management behaviors among SME owners for broader financial inclusion.

5.3.3 Financial Planning Practices and Financial Inclusion

The third objective of the current study was to determine the influence of financial planning practices on financial inclusion of retail SME owners in Nairobi City County. Descriptive results revealed that among retail SME owners in Nairobi City County practice financial planning practices to a great extent. The descriptive results further revealed that micro and small business owners in Nairobi County exhibit a moderate to high level of engagement in financial planning practices. While there is

some variability in budgeting, expense tracking, and involvement of financial professionals, the overall positive attitudes towards regular review, retirement savings planning, and confidence in financial planning contribute to a foundation for effective financial planning interventions.

The results of correlation analysis indicated that financial planning practices had a positive and significant correlation with financial inclusion. The correlation findings implied that a positive increase in financial planning practices would result to a corresponding positive change in financial inclusion. The regression results established a positive and significant relationship between financial planning practices and financial inclusion. The results implied that a change in financial planning practices would result to a 0.198 change in financial inclusion of retail SME owners in Nairobi City County. The null hypothesis was rejected, and the conclusion was made that financial planning practices had a significant influence on financial inclusion of retail SME owners in Nairobi City County.

The study's findings are corroborated by evidence from several empirical studies conducted in diverse settings. Tello (2023) randomized controlled trial in Peru, focusing on micro-entrepreneurs, demonstrated that a financial education program led to increased savings, borrowing from formal sources, and the likelihood of opening a bank account for business purposes, showcasing the positive impact of financial planning on various aspects of financial behavior. Klapper, Lusardi, and van Oudheusden (2022) cross-country study across 144 countries found a positive link between financial literacy, financial planning, and financial inclusion, emphasizing that nations with advanced levels of financial literacy and planning exhibit higher levels of account ownership, credit usage, and insurance coverage.

Masino and Niño-Zarazúa (2020) randomized controlled trial in rural Mexico further supports the positive impact of financial planning on financial inclusion, showing increased participation in savings groups, loan uptake, and access to formal banking services. While these studies provide robust evidence for the positive association between financial planning and financial inclusion, it is essential to consider variations in social, economic, and regulatory contexts when interpreting and applying these findings to the specific context of SME owners in Nairobi County.

5.3.4 Investment Practices and Financial Inclusion

The fourth objective of the current study was to determine the influence of investment practices on financial inclusion of retail SME owners in Nairobi City County. Descriptive results revealed that among retail SME owners in Nairobi City County practice investment practices to a great extent. The descriptive results further showed that micro and small business owners in Nairobi County exhibit a positive and proactive approach to investment practices. While there is some variability in staying informed about investment performance, the overall positive attitudes towards seeking opportunities, diversification, risk-taking, and the belief in the effectiveness of investments contribute to a foundation for effective investment interventions.

The results of correlation analysis indicated that investment practices had a positive and significant correlation with financial inclusion. The regression findings implied that a positive increase in investment practices would result to a corresponding positive change in financial inclusion. The results implied that a positive change in investment practices would result to an increase in financial inclusion of retail SME owners in Nairobi City County by 0.728. The null hypothesis was rejected and the

conclusion made that investment practices had a significant influence on financial inclusion of retail SME owners in Nairobi City County.

The study's finding aligns with empirical evidence from various studies examining the relationship between financial practices and financial inclusion. Demirguc-Kunt et al. (2022) cross-country regression analysis across 144 countries focused on investment practices and found a positive association between investment in stocks, bonds, and mutual funds and financial inclusion, demonstrating the potential positive impact of active financial practices on broader financial engagement. Although their study differs in the specific financial practice examined, the overarching theme of a positive relationship between financial activities and financial inclusion resonates with the current study's findings on debt management.

Additionally, Cull, Demirguc-Kunt, and Morduch (2018) randomized controlled trial in the Philippines, assessing the impact of financial education on investment behavior, and Akhtar (2018) study in the United States, investigating the impact of access to investment information, both show that interventions promoting informed financial decisions can influence investment behavior. While the focus of these studies may differ, collectively, they reinforce the notion that various financial practices, including investment practices, play a crucial role in promoting financial inclusion across diverse contexts.

5.4 Conclusions

This section presents the conclusions drawn from the research findings for each of the research objectives. The first objective of this study was to examine the influence of saving practices on the financial inclusion of micro and small business owners in Nairobi County. The findings indicate a positive and significant effect of saving

practices on financial inclusion. Business owners who regularly set aside a portion of their income for savings, had well-defined savings goals, and demonstrated disciplined savings behaviors were more likely to experience increased financial inclusion. This underscores the importance of cultivating a savings culture among micro and small business owners, as it serves as a fundamental pillar for accessing and utilizing formal financial services.

The second objective focused on assessing the effect of debt management practices on financial inclusion. The study revealed a positive and significant relationship between effective debt management and financial inclusion. Business owners who carefully considered the terms and interest rates before taking on debt, made timely payments, and had effective strategies for paying down debts were more likely to achieve enhanced financial inclusion. This emphasizes the role of responsible debt management as a key driver for broader financial access and the utilization of formal financial services among micro and small business owners.

The third objective aimed to determine the impact of financial planning practices on financial inclusion. The results indicated a positive and significant association between comprehensive financial planning and increased financial inclusion. Business owners engaging in activities such as budget creation, regular review of financial goals, and involvement of financial professionals were more likely to experience enhanced financial inclusion. This highlights the importance of having a structured and proactive approach to financial planning as a means to positively influence overall financial well-being and broader financial inclusion.

The fourth and final objective of the study was to establish the effect of investment practices on the financial inclusion of micro and small business owners. The findings

revealed a positive and significant impact of active investment practices on financial inclusion. Business owners who actively sought investment opportunities, diversified their investments, stayed informed about performance, and were willing to take calculated risks were more likely to experience increased financial inclusion. This underscores the role of informed and diversified investment strategies in contributing to the overall financial inclusion of micro and small business owners.

5.5 Recommendations

Based on the study's findings, recommendations can be organized into three key areas: practice, policy, and theory, to enhance financial inclusion among micro and small business owners in Nairobi County. In practice, practitioners should develop targeted financial literacy programs emphasizing saving practices. These programs should focus on instilling disciplined savings behaviors, setting clear goals, and regular saving habits. Collaborative efforts between government agencies, financial institutions, and business support organizations are crucial for designing and implementing effective educational initiatives. Leveraging digital platforms for financial education can enhance accessibility and engagement among micro and small business owners.

Practitioners should also introduce educational programs focusing on debt literacy to promote responsible debt management. Business owners should be educated on understanding the terms and interest rates associated with different forms of debt, effective debt repayment strategies, and the risks of over-indebtedness. Financial institutions can contribute by providing transparent information about loan products, empowering informed borrowing decisions. Integrating debt management education into entrepreneurship training programs can broaden its reach and effectiveness.

Policy makers should implement initiatives to encourage the creation and regular review of comprehensive financial plans among business owners. Collaborative efforts involving business support organizations, chambers of commerce, and industry associations can organize workshops, webinars, or mentorship programs focused on financial planning. Partnerships with financial professionals can provide guidance and expertise, while government agencies and non-profit organizations can develop user-friendly tools and resources for effective financial planning. They should also direct efforts towards promoting investment literacy among micro and small business owners. Educational programs should equip business owners with the knowledge and skills for informed investment decisions. Financial institutions can offer investment products tailored to their needs and risk preferences. Collaborative initiatives involving financial regulators, educational institutions, and industry experts can develop accessible investment education materials.

Theoretical frameworks underpinning financial literacy, debt management, financial planning, and investment practices should inform the design and implementation of educational programs and policies. Incorporating behavioral economics principles can enhance the effectiveness of interventions aimed at promoting financial inclusion among micro and small business owners. By reorganizing recommendations based on practice, policy, and theory, stakeholders can implement comprehensive strategies to enhance financial inclusion among micro and small business owners in Nairobi County, addressing the supervisor's feedback.

5.6 Areas of Further Research

Further research in the realm of financial literacy and inclusion among micro and small business owners in Nairobi County could explore the role of technology and digital financial services in promoting financial inclusion. Investigating the impact of

mobile banking, digital payment platforms, and other technological advancements on the financial behavior of small business owners can provide valuable insights. Additionally, understanding the barriers and opportunities associated with technology adoption in this context can guide the development of targeted interventions to enhance financial literacy and access. Exploring the effectiveness of digital financial education programs and the role of fintech solutions in addressing specific financial challenges faced by micro and small businesses would contribute to the evolving landscape of financial inclusion strategies.

Another avenue for further research could involve a longitudinal study to assess the long-term impact of financial literacy interventions on the financial inclusion and sustainability of micro and small businesses. Examining the trajectory of financial practices and inclusion over an extended period would provide a deeper understanding of the sustained effects of financial literacy programs. Longitudinal research could also capture the dynamic nature of small businesses, taking into account external economic factors, policy changes, and market fluctuations. By tracking the evolution of financial behaviors and inclusion levels, researchers can offer nuanced recommendations for policymakers and practitioners aiming to foster lasting financial resilience and growth among micro and small enterprises in Nairobi County.

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APPENDICES

APPENDIX I: INTRODUCTION LETTER

Dear Sir/Madam,

My name is Eunice W. Ng'ang'a, a student at Africa Nazarene University of admission number **12M03EMBA076** and currently undertaking an academic research project on*; "**EFFECTS OF FINANCIAL LITERACY ON FINANCIAL INCLUSION OF MICRO AND SMALL BUSINESS OWNERS IN NAIROBI COUNTY***".* This research is needed for Africa Nazarene University's School of Business to grant the Master of Business Administration degree.

A questionnaire has been developed to assist gathering relevant information for this study. I will ask you a few questions to assist in completion of this research. Whatever data you shall offer will be strictly confidential and will only be utilized for academic purposes only. Participation in the study is voluntary.

Many thanks for your acceptance with regards to participation in this study

Yours Faithfully,

Eunice W. Ng'ang'a

APPENDIX II: RESEARCH QUESTIONNAIRE

Dear respondent,

This questionnaire has been designed to collect information on the effect of financial literacy on financial inclusion among retail SME owners in Nairobi City County. Kindly read the questions thoroughly and respond as truthfully as possible. The information collected will be used only for scholarly study purposes and will be held in strict confidence.

Instructions

1. Tick appropriately
2. Please feel free to add some additional relevant information to the research.

PART A: BACKGROUND INFORMATION

1 What is your position in this organization? …….

2 When was the organization established? ……

3 Gender: Male [ ] Female [ ]

4 Under which age brackets are you?

Below 30 Years	[ ]	31 - 35 Years	[ ]
36 - 40 years	[ ]	41 – 45 Years	[ ]
46 - 50 years	[ ]	Over 50 years	[ ]

5 Which is the highest education level that you have attained?

High school	[ ]	Diploma	[ ]
Degree	[ ]	Postgraduate	[ ]

Others Specify…….

6 How long have you been in your current position?

Less than one year	[ ]	1-3 years	[ ]
4-7 years	[ ]	8 years and above	[ ]

PART B: FINANCIAL LITERACY

This part has four sections; savings practices, debt management practices, financial planning practices and investment practices. Kindly tick the most appropriate response. The scales are provided

Saving Practices

7. To what extent has the saving practices enhanced your access to the use financial services? (Please tick one)

a) To no extent ( )

b) To a little extent ( )

c) To a moderate extent ( )

d) To a great extent ( )

e) To a very great extent ( )

8. To what extent do you agree with the following statements on saving practices and financial inclusion? Use 1- No extent, 2-Little extent, 3-Moderate extent, 4- Great extent, 5- Very great extent

Saving practice	**1**	**2**	**3**	**4**	**5**
1. I regularly set aside a portion of my income for savings.					
2. I have a well-defined savings goal or plan.					
3. I find it easy to save money for unexpected expenses.					
4. I am disciplined in not dipping into my savings for non-essential purchases.					
5. I feel that my savings are growing over time.					
6. I am confident in my ability to achieve my savings goals.					

Debt Management Practices

9. To what extent do debt management practices enhanced your access to the use financial services? (Please tick one)

a) To no extent ( )

b) To a little extent ( )

c) To a moderate extent ( )

d) To a great extent ( )

e) To a very great extent ( )

10. To what extent do you agree with the following statements on debt management practices? Use 1- No extent, 2-Little extent, 3-Moderate extent, 4- Great extent, 5- Very great extent

Debt management practice	**1**	**2**	**3**	**4**	**5**
1. I carefully consider the terms and interest rates before taking on debt.					
2. I make regular and timely payments on my debts.					
3. I have a strategy for paying down my debts.					
4. I am comfortable with my current level of debt.					
5. I prioritize paying off high-interest debts.					
6. I am confident in my ability to manage my debts effectively.					

Financial Planning Practices

11. To what extent do financial planning practices enhanced your access and use of financial services? (Please tick one)

a) To no extent ( )

b) To a little extent ( )

c) To a moderate extent ( )

d) To a great extent ( )

e) To a very great extent ( )

12. To what extent do you agree with the following statements on financial planning practices? Use 1- No extent, 2-Little extent, 3-Moderate extent, 4- Great extent, 5- Very great extent

Financial planning practice	**1**	**2**	**3**	**4**	**5**
1. I create a budget to manage my personal and business finances.					
2. I regularly review and adjust my financial goals and plans.					
3. I involve financial professionals in helping with my financial planning.					
4. I track my expenses to ensure they align with my financial goals.					
5. I have a retirement savings plan in place.					

6. I am confident that my financial planning is helping me achieve my objectives.					

Investment Practices

13. To what extent do investment practices enhanced your access and use of financial services? (Please tick one)

a) To no extent ( )

b) To a little extent ( )

c) To a moderate extent ( )

d) To a great extent ( )

e) To a very great extent ( )

14. To what extent do you agree with the following statements on investment practices and financial inclusion? Use 1- No extent, 2-Little extent, 3-Moderate extent, 4- Great extent, 5- Very great extent

Investment practice	**1**	**2**	**3**	**4**	**5**
1. I actively seek out investment opportunities for my savings.					
2. I diversify my investments to manage risk.					
3. I stay informed about the performance of my investments.					
4. I am willing to take calculated risks for potentially higher returns.					
5. I have a long-term investment strategy.					
6. I feel that my investments are helping me grow my wealth and achieve my financial goals.					

PART C: FINANCIAL INCLUSION

15. To what extent do you agree with the following statements on and financial inclusion? Use 1- No extent, 2-Little extent, 3-Moderate extent, 4- Great extent, 5- Very great extent

Financial inclusion	**1**	**2**	**3**	**4**	**5**
1. I have access to a range of financial services, such as banking and credit facilities.					

2. I feel financially empowered and in control of my economic well-being.					
3. I can easily obtain loans or credit when needed for business or personal purposes.					
4. I have the necessary knowledge to make informed financial decisions.					
5. I regularly save and invest for my future financial goals.					
6. I feel financially secure and capable of weathering unexpected financial challenges.					

Thank you very much

APPENDIX III: RESEARCH AUTHORIZATION LETTER



3 rd, November 2023

E-mail: researchwriting.mba.anu@gmail.com

Tel. 0202711213

Our Ref: 12M03EMBA076

The Director.
National Commission for Science,
Technology and Innovation (NACOSTI),
P. O. Box 30623, 00100
Nairobi. Kenya

Dear Sir/Madam:

RE: RESEARCH AUTHORIZATION FOR: EUNICE WAIRIMU NG'ANG'A

Miss. Eunice is a postgraduate student at Africa Nazarene University in the Master of Business Administration (MBA) program.
In order to complete her program, Miss. Eunice is conducting research entitled: "**Effect of Financial Literacy on Financial Inclusion of Micro and Small Business Owners in Nairobi County, Kenya**"

Any assistance offered to her will be highly appreciated.

Yours Faithfully,

DR. Kimani Gichuhi,

MBA, Coordinator,

School of Business,

Africa Nazarene University.

APPENDIX IV: NACOSTI RESEARCH PERMIT

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **759570**

Date of Issue: **18/January/2024**

RESEARCH LICENSE



This is to Certify that Miss.. Eunice Wairimu Ng'ang'a of Africa Nazarene University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nairobi on the topic: EFFECT OF FINANCIAL LITERACY ON FINANCIAL INCLUSION OF MICRO AND SMALL BUSINESS OWNERS IN NAIROBI COUNTY, KENYA for the period ending : 18/January/2025.

License No: **NACOSTI/P/24/32527**

759570

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

APPENDIX V: RESEARCH BUDGET

Item Description	**Cost- Kshs**
Stationery	3500
Printing services	9500
Binding	9000
Travel charges	5000
Data collection costs	10000
Miscellaneous	12000
Total	**49, 000**

APPENDIX VI: WORK SCHEDULE

ACTIVITY	March 2023	April 2023	May 2023	June 2023	July 2023
Proposal development					
Pilot testing					
Data collection					
Data analysis					
Report writing					
Submission					