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**FINANCIAL LITERACY AND INVESTMENT PERFORMANCE IN  
RWANDA.**

**CASE STUDY: KAMEMBE CITY INVESTORS**

A thesis submitted in partial fulfillment for the Degree of Master's in Business  
administration of the University of Rwanda

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**DEDICATION**

To My Heavenly Father

My family

My friends and relatives

My classmates

## **ACKNOWLEDGEMENTS**

I am very thankful to the Almighty God for his protection and guidance.

My greater thanks go to the UNIVERSITY OF RWANDA, college of Business and economics (CBE). It also goes to Associate Prof. Isaïe Misago Kadhafi who guided me during the arrangement of ideas and helped me come up at the end of this work. My heartfelt thanks go to my family who encouraged me and any other form of support they have given me for the success of this project. My greater thanks also go to all my lecturers who contributed directly or indirectly to my studies.

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## ABSTRACT

While financial literacy has been widely studied globally, limited research exists on its impact on investment performance in emerging economic hubs like Kamembe city, Rwanda. This study fills this gap by examining how financial literacy influences investment decisions and performance among local investors, providing context-specific insights for policymakers and financial educators. The research was motivated by the growing recognition that financial literacy plays an important role in determining investment decisions, improving financial well-being, and enhancing resilience in times of economic uncertainty. The specific objectives of the study were to assess the level of financial literacy among investors, evaluate their investment performance, and evaluate the effect of financial literacy on investment performance.

A mixed-methods approach was employed, combining quantitative data from a structured questionnaire administered to 150 investors. The quantitative data were analyzed using descriptive statistics, correlation, and regression analysis in SPSS. Key indicators assessed under financial literacy included knowledge, skills and behavior specifically on budgeting, saving, borrowing, and investing. Investment performance was measured using return on investment rate and sales growth rate.

The findings revealed that most investors possessed a moderate level of financial literacy, with the majority scoring between 3 and 4 on a 5-point scale. Investment performance, most investors were generally moderate performers with 41%, the best high performers cover 22% and the rest of 37% are qualified as low performers. A significant positive correlation ( $r = 0.291, p < 0.01$ ) was found between financial literacy and investment performance. Regression analysis confirmed that financial literacy significantly predicts investment performance ( $R^2 = 0.085, p < 0.001$ ), supporting the study's hypothesis. The study also explored investors' experiences with financial distress, showing that while a large number faced financial challenges, many overcame them through strategies such as borrowing, selling assets, and diversifying business activities. The study has important implications for policymakers, educators, and financial institutions aiming to strengthen financial literacy programs to foster sustainable investment growth and economic empowerment.

**Keywords:** financial literacy, investment performance, behavior, return on investment, sales growth, and financial decision-making.

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## **ACRONMS AND ABBREVIATIONS**

**DRC:** Democratic Republic of Congo

**MFIs:** Micro Finance Institutions

**MPT:** Modern Portfolio Theory

**NBR:** National Bank of Rwanda

**NFIS:** National Financial Inclusion Strategy

**PACFL:** Presidents Advisory Council on Financial Literacy

**ROE:** Return On Equity

**ROI:** Return On Investment

**SACCOs:** Saving And Credit Cooperatives

**SMEs:** Small and Medium Enterprises

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## **CHAPTER ONE: INTRODUCTION**

### **1.1. BACKGROUND OF THE STUDY**

Financial literacy has turned out to be a foundation for improving individual and community investment performance around the world. It includes all of the financial information, skills, dispositions, and practices required for wise financial decision-making. However, persons who lack financial literacy are unable to make wise financial decisions. The Rwandan economy's growth and development, as well as the expansion of financial markets through liberalization, privatization, and globalization, have made financial products available as credit or investment options. Because of this, People are unable to choose the optimal investment option that would yield a net positive return and exceed the present rate of inflation. As Rwanda vision 2050, financial literacy is one of the important key pillar for economic transformation in the regional under this vision and other strategic frameworks like the National Financial Inclusion Strategy (NFIS). These initiatives highlight the importance of empowering citizens with financial knowledge to boost savings, investments, and economic resilience.

Kamembe city, located in Rwanda's western province, serves as a vibrant hub for economic activities due to its proximity to the Rwanda-DRC border. The city's investors, ranging from small-scale traders to real estate developers, face a dynamic business environment shaped by regional trade, local market forces, and access to financial services. However, many investors struggle with informed financial decision-making, often hindered by limited financial education, inadequate investment planning, and fluctuating market conditions.

Many research has been conducted related to financial literacy and financial inclusion, or financial literacy and investment decision making, etc. Despite Rwanda's progress in expanding financial services such as mobile banking and microfinance the correlation between financial literacy and investment performance remains underexplored, particularly at the microeconomic level. In Kamembe city, understanding how financial literacy influences investment performance

can offer insightful information about how to promote equitable and sustainable economic growth.

Therefore, this study will examine the connection between financial literacy and investing performance in Rwanda with reference of the case study of Kamembe city investors, addressing gaps in local research and providing actionable recommendations to stakeholders.

## **1.2. PROBLEM STATEMENT**

Investment is essential to economic development because it creates income and propels both local and national expansion. However, investors' level of financial knowledge frequently determines how well their assets perform. Although financial literacy varies greatly among populations and geographical areas, it includes the information, abilities, and attitudes needed to make wise financial decisions.

In Rwanda, regardless of national initiatives to advance financial inclusion and education through programs such as Umurenge SACCOs and financial literacy campaigns, many individuals and small-scale investors face challenges in achieving optimal investment outcomes. For instance, a report by the National Bank of Rwanda (NBR) shows that while access to financial services has improved, gaps in financial understanding persist, leading to poor investment diversification and susceptibility to financial risks.

Kamembe city, a bustling economic hub near the Rwanda-DRC border, presents a unique case. Its investors, engaging in sectors such as cross-border trade, small businesses, and real estate, often lack the financial education necessary to navigate complex investment decisions. As a result, many are unable to maximize returns or adequately manage risks, which undermines their financial stability and the broader economic growth of the region.

While prior research in Rwanda has examined financial literacy in relation to loan repayment (Musabwasoni et al., 2020) and financial inclusion (Gilbert & Kadhafi, 2023), no study has specifically assessed its impact on investment performance specifically in Kamembe City, a dynamic economic hub near the Rwanda-DRC border. This study addresses this gap by analyzing how financial literacy shapes investment success in this unique regional context. This

gap is very critical for the development of targeted interventions that could empower local investors to make better financial decisions and contribute more effectively to economic growth.

By investigating the relationship between financial literacy and investment performance among this study aims to close this gap.

It aims to provide actionable insights that can guide policymakers, financial institutions, and educational programs in enhancing financial literacy and fostering sustainable investment practices in similar contexts.

### **1.3. PURPOSE OF THE STUDY**

This study seeks to investigate the relationship between investors' investment performance and financial literacy in Rwanda with reference to Kamembe city. Specifically, the study aims to:

- ❖ **Assess Financial Literacy Levels of Kamembe city investors:** Evaluate the extent to which investors in Kamembe city possess the knowledge, skills, and attitudes necessary for sound financial decision-making.
- ❖ **Evaluate Investment Performance for Kamembe city investors:** Explore how investors in the region are performing in terms of business growth, and return on investments.
- ❖ **Establish the Link:** evaluate the impact of financial literacy on key aspects of investment success, including decision-making, profitability, and resilience to financial risks.
- ❖ **Provide Policy and Practical Recommendations:** Develop evidence-based recommendations for policymakers, financial institutions, and educational entities to improve financial literacy programs and support sustainable investment practices.

This study seeks to fill a critical gap in existing research and contribute on economic growth and financial empowerment in Rwanda.

### **1.4. OBJECTIVES OF THE STUDY**

#### *1.4.1. Main objective*

The main objective of this study is to explore the affiliation between financial literacy and investment performance in Rwanda, among investors in Kamembe city. It seeks to determine

how financial literacy impacts investment decisions, risk management, and the overall performance of investments, which contributing to sustainable economic growth of the country.

#### *1.4.2. Specific objectives*

1. To assess the level of financial literacy for the investors in Kamembe city.
2. To evaluate the investment performance in Kamembe city.
3. To evaluate the effect of financial literacy on investment performance.

### **1.5. RESEARCH QUESTIONS**

- What is the level of financial literacy among investors in Kamembe city?
- How do investors in Kamembe city measure their investment performance?
- What is the effect of financial literacy on Kamembe city investment performance?

### **1.6. RESEARCH HYPOTHESES**

In order to achieve the above objectives, the following hypotheses will be tested:

*Main Hypothesis (H1):*

H1: Financial literacy and investment performance in Rwanda are significantly positively correlated.

*Sub-Hypotheses:*

H2: Investors with higher financial literacy will exhibit better investment performance, including higher returns and greater risk management, compared to those with lower financial literacy.

Null Hypothesis (H0):

H0: Financial literacy and investment performance in Rwanda are not significantly correlated

Alternative Hypothesis (H1a):

H1a: Financial literacy and investment performance in Rwanda are negatively correlated

## 1.7. JUSTIFICATION OF THE STUDY

This study holds significant importance for several reasons, both at the individual level and for broader economic development in Rwanda.

### 1. Economic development and financial inclusion

As Rwanda continues its journey toward economic growth, particularly through its Vision 2050 and the National Financial Inclusion Strategy (NFIS), improving financial literacy is crucial for empowering individuals to make informed financial decisions. This study can further knowledge of the role that financial literacy plays in attaining sustainable development by assessing the financial literacy levels such as saving skills, investing skills as well as loan management skills of Kamembe city investors. Studies have shown that financial literacy boosts individuals' capacity to save, invest, and manage debt, which directly impacts economic resilience and stability.

### 2. Improving investment performance

Financial literacy has been linked to better investment performance, as informed investors are more likely to make decisions that maximize returns and reduce risks. By exploring this relationship in the context of Rwanda, Kamembe city; this study seeks to provide valuable insights for local investors on how improving their financial knowledge can lead to more successful investments. Evidence from other developing economies suggests that enhancing financial literacy can be a game-changer in optimizing investment outcomes and fostering entrepreneurial growth.

### 3. Policy implications

The findings from this study will be essential for policymakers and financial institutions in Rwanda. By identifying the current gaps in financial literacy, this research can help in the design of targeted interventions and educational programs aimed at improving financial decision-making. Policymakers can use the study's outcomes to shape financial inclusion strategies that address local challenges, particularly in rural areas where access to financial services and education might be more limited.

#### 4. Contribution to academic literature

While much research has been conducted globally on the relationship between financial literacy and investment outcomes, limited studies have focused specifically on Rwanda or other East African regions. This study fills this gap by contributing to the academic discourse on financial literacy in developing countries. Its findings will add to the growing body of knowledge on how financial education affects investment performance in low- and middle-income countries.

### **1.8. SCOPE AND LIMITATION OF THE STUDY**

While this study aims to provide valuable insights into the relationship between financial literacy and investment performance in Kamembe city, certain limitations may affect its scope and findings:

#### 1. Geographical focus

The study is confined to Kamembe city, which may limit the generalizability of the findings to other regions in Rwanda or similar developing economies. Financial literacy and investment performance in Kamembe may differ from those in urban centers like Kigali or rural areas with distinct socio-economic dynamics.

#### 2. Limited scope of financial literacy assessment

Financial literacy is a broad concept encompassing various aspects, such as numeracy skills, risk assessment, knowledge of financial products, and long-term financial planning. This study may focus only on selected dimensions of financial literacy, potentially overlooking other relevant aspects that influence investment performance.

#### 3. Time constraints

Given the time limitations for conducting this research, data collection and analysis may not capture long-term trends in financial literacy and investment performance. As

investment outcomes often manifest over an extended period, this study's findings may only reflect short-term impacts.

### **How to Address These Limitations**

While acknowledging these limitations, efforts will be made to minimize their impact. For instance; Contextualizing findings within broader economic and cultural frameworks will help provide a balanced interpretation.

## **1.9. SIGNIFICANCE OF THE STUDY**

This study is significant for several reasons, addressing critical gaps in knowledge and practice while contributing to the broader goals of financial inclusion, economic development, and academic advancement.

### 1. For policymakers

The study provides valuable insights for policymakers seeking to promote financial literacy as a means of improving investment outcomes and fostering economic growth. It aligns with Rwanda's financial inclusion policies, such as the National Financial Education Strategy, by offering evidence-based recommendations for enhancing financial education and investor support systems.

### 2. For investors

The research highlights the importance of financial literacy in making sound investment decisions. By identifying factors that affect investment performance, it can empower local investors with actionable insights to improve their financial knowledge, manage risks, and achieve better financial outcomes.

### 3. For academia and researchers

The study contributes to the limited body of literature on financial literacy and investment performance in Rwanda and Sub-Saharan Africa. It offers a localized perspective, filling a critical gap in research and providing a foundation for future studies in this field.

### 4. For economic development

The research supports Rwanda's broader economic goals, including poverty reduction and sustainable development, by emphasizing the role of informed financial decision-making. Improved financial literacy can lead to better resource allocation, increased savings, and investment in productive ventures, ultimately enhancing the economic well-being of communities like Kamembe city.

### 5. For local communities

By addressing barriers to financial literacy and proposing practical solutions, the study can contribute to the empowerment of individuals and businesses in Kamembe City.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.0. INTRODUCTION**

This chapter reviews what different authors and researchers have done on financial literacy and investment performance or success. The main aim of this chapter is to provide an understanding on investment performance and how it is affected by the financial literacy in Rwanda as put forward by different authors and researchers into books, reports and any other published documents that will be available to the researcher.

### **2.1 THEORETICAL REVIEW**

The theoretical review provides a foundation for understanding the relationship between financial literacy and investment performance. It delves into established theories that inform this study.

#### **2.1.1 Financial Literacy Theory**

Financial Literacy Theory underscores the importance of knowledge, skills, and attitudes in shaping financial behavior. This theory integrates elements of behavioral economics and human capital theory, emphasizing that financially literate individuals are more likely to engage in sound financial practices (Remund, 2010).

According to PACFL (2008) (Presidents Advisory Council on Financial Literacy) definition, they said that Financial Literacy means knowledge of basic economic and financial concepts, as well as the ability to use that knowledge and other financial skills to manage financial resources effectively for a lifetime of financial well-being. (Paillella, 2016)

Mandell (2007) described financial literacy as the ability to evaluate the new and complex financial instruments and make informed judgments in both choice of instruments and extent of use that would be in their own best long-run interests. Lusardi (2008a, 2008b) explained the financial literacy as knowledge of basic financial concepts, such as the working of interest compounding, the difference between nominal and real values, and the basics of risk diversification while Lusardi and Tufano (2008) focused on debt literacy, a component of financial literacy, defining it as “the ability to make simple decisions regarding debt contracts,

in particular how one applies basic knowledge about interest compounding, measured in the context of everyday financial choices

In the economic crisis of 2008, Kovács, L. and Terták, E., 2019 said that “A lack of financial and economic skills greatly contributed to the rise of panic reactions as a result of which the crisis had an even deeper impact and the absence of financial literacy and skills played a crucial role in prolonging the 2008 economic and financial crisis”. In his book, he said that financial literacy skills are very important for good financial decision making.

Sudakova, A., 2018 was conducted a research aimed to find out how aware the target audience is of the information that constitutes financial literacy and find that the audience were poorly informed about financial literacy. And they concluded that students must be taught about this matter as it plays a big contribution in their financial resources, while shopping and also in their decision making which have impact on their lives.

In Rwanda, financial literacy programs have been linked to improved savings habits and investment diversification.

### **2.1.2 Behavioral Finance Theory**

Behavioral Finance Theory examines the psychological factors that affect decision-making in financial contexts. Unlike traditional finance theories, which assume that individuals are rational actors, behavioral finance acknowledges cognitive biases and emotional influences on investment decisions (Kahneman & Tversky, 1979). Biases such as overconfidence, loss aversion, and herding behavior can significantly distort financial choices (Barberis & Thaler, 2003). Financial literacy serves as a mitigating factor, enabling investors to recognize and counteract such biases.

#### ***Psychological biases in financial decision-making***

Behavioral finance identifies several cognitive biases that influence investment behavior:

### 1. Overconfidence bias

Overconfidence is the propensity for people to overestimate their skills, expertise, or influence over circumstances. Investors may believe they can predict market trends more accurately than they actually can, leading to excessive trading or risky investment decisions (Odean, 1999).

### 2. Loss aversion

Loss aversion, a core concept of Prospect Theory, suggests that people feel the pain of losses more intensely than the pleasure of equivalent gains (Kahneman & Tversky, 1979). This bias often leads investors to hold onto losing investments longer than they should or to avoid potentially profitable opportunities due to fear of loss.

### 3. Herding behavior

Herding occurs when individuals follow the actions of a larger group, often ignoring their own analysis or judgment (Banerjee, 1992). This behavior can lead to asset bubbles or crashes as market participants collectively overreact.

### ***Emotional influences on financial decisions***

Emotions also play a critical role in financial decision-making. Fear, greed, and excitement can drive irrational choices, particularly during periods of market volatility (Lo, 2004). Emotional reactions can amplify biases, such as overconfidence during market booms or panic during downturns, impacting investment outcomes.

### ***The Role of financial literacy in mitigating biases***

Financial literacy acts as a mitigating factor by helping investors recognize and counteract cognitive and emotional biases. According to Lusardi and Mitchell (2014), individuals with higher financial literacy are better equipped to analyze market information, assess risks, and make informed decisions. For instance, a financially literate investor in Rwanda may use knowledge of diversification to avoid herding behavior or employ risk assessment techniques to counter loss aversion.

### **2.1.3 Human capital theory**

Human capital theory, first introduced by Gary s. Becker (Becker, 1964), highlights the value of investing in education, skills, and knowledge to enhance an individual's productivity and economic outcomes. It argues that human capital—defined as the skills and expertise accumulated through education and experience—plays a critical role in determining economic and personal success. In the context of financial literacy, Human Capital Theory provides a foundation for understanding how financial education contributes to improved decision-making, risk management, and overall financial well-being.

#### ***Core concepts of human capital theory***

##### **1. Education as an investment**

Education is viewed as an investment in human capital that yields returns over time through increased productivity and earning potential (Becker, 1964). Financial literacy, as a specific type of education, equips individuals with the skills needed to understand financial systems, evaluate investment opportunities, and make informed financial decisions. For Kamembe city investors, this means learning to balance risks and rewards effectively in a dynamic economic environment.

##### **2. Skill development and productivity**

Human Capital Theory emphasizes the role of skill development in enhancing productivity (Schultz, 1961). In financial markets, this translates into acquiring knowledge about investment instruments, budgeting, and risk management. For instance, investors in Kamembe city with greater financial knowledge can better diversify their portfolios and adapt to market fluctuations, leading to improved investment outcomes.

##### **3. Impact on economic growth**

At a macroeconomic level, higher levels of human capital contribute to economic growth by fostering innovation and efficient resource allocation (Romer, 1990). Financial literacy, as part

of human capital, drives individual and collective economic progress by enabling more efficient participation in financial markets and reducing systemic risks. For Kamembe city, equipping investors with financial knowledge can boost local economic development by improving the efficiency of cross-border trade and investment practices.

### ***Financial literacy as human capital***

Financial literacy represents a specialized form of human capital that enhances an individual's financial decision-making abilities. According to Lusardi (2019), financially literate individuals are better equipped to:

- *Analyze financial information:* Understand complex financial concepts such as interest rates, inflation, and investment diversification.
- *Manage financial risks:* Identify and mitigate risks associated with investments and debt.
- *Achieve long-term goals:* Plan for retirement, education, or business expansion by aligning financial resources with future objectives.

### ***Challenges in developing financial human capital***

While human capital theory underscores the benefits of financial literacy, certain challenges hinder its development:

- *Limited access to education:* In rural areas, access to quality education and training programs may be constrained by socioeconomic barriers.
- *Cultural norms and attitudes:* Traditional beliefs about money management can limit the adoption of financial education initiatives.
- *Digital divide:* Limited access to technology hinders the delivery of online financial literacy resources.

#### **2.1.4 Modern Portfolio Theory (MPT)**

Modern Portfolio Theory (MPT), introduced by Markowitz (1952), emphasizes diversification as a strategy to optimize investment returns while minimizing risk. According to this theory, a well-diversified portfolio balances risk and reward by spreading investments across various

assets. However, implementing MPT principles requires a certain level of financial literacy. Investors must understand concepts such as risk correlation and asset allocation to construct efficient portfolios (Bodie et al., 2014). In Rwanda, the ability to apply MPT principles is crucial given the volatility of local financial markets.

## 2.2 CONCEPTUAL REVIEW

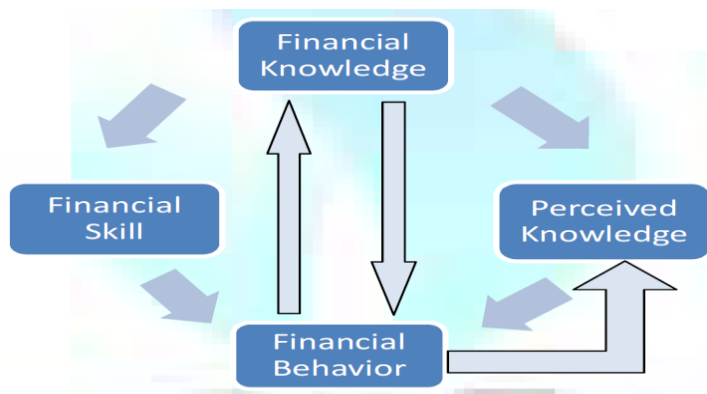
The conceptual review focuses on the definitions and dimensions of key variables in the study, namely financial literacy and investment performance.

Financial literacy is a conceptual model containing six basic components: (1) Saving Borrowings; (2) Personal Budgeting; (3) Economic Issues; (4) Financial Concepts; (5) Financial Services; (6) Investing. Saving borrowings related to the knowledge of saving and borrowing, evaluate and ability to make financial planning. Personal budgeting related to the understanding of budgeting based on the personal income. Economic issues related to the understanding about economic issues in a country or worldwide. Financial concept related to understanding the basic financial concept. Financial services related to the knowledge about the current product and service. Investing related to the knowledge in investment and risk of the investment. (Firli, A., 2017)

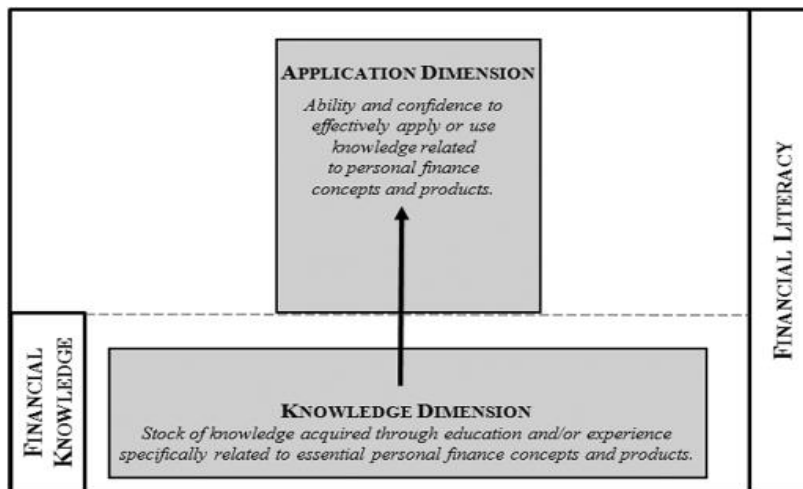
According to PACFL (2008) (Presidents Advisory Council on Financial Literacy),

below is Figure presents logical relationships among financial literacy components

**Figure 1: Relationships among financial literacy components**



Financial literacy refers to the ability to understand and effectively use various financial skills, including personal financial management, budgeting, and investing (Lusardi & Mitchell, 2014). Huston (2010) categorizes financial literacy into two dimensions: knowledge and application. Knowledge encompasses understanding financial concepts such as interest rates, inflation, and risk, while application involves using this knowledge in decision-making processes.



financial literacy could be defined as measuring how well an individual can understand and use personal finance-related information (Huston (2010)

In the Rwandan context, financial literacy is a critical driver of economic empowerment, as highlighted in the National Financial Inclusion Strategy (Government of Rwanda, 2020).

Huston (2010) emphasizes that financial knowledge enables individuals to evaluate financial options critically, empowering them to make informed decisions. For instance, Rwandan investors with strong financial knowledge can better assess the implications of cross-border trade financing.

### 1. Application

The application dimension refers to the practical use of financial knowledge in real-world decision-making. This includes:

- **Budgeting:** Planning income and expenses to meet financial goals.
- **Investing:** Allocating resources in ways that maximize returns while managing risks.

- **Debt Management:** Understanding and responsibly managing credit to avoid excessive debt burdens.

Effective application bridges the gap between theoretical knowledge and practical financial behavior. In regions like Rwanda, specifically in Kamembe City, this ability can significantly impact the financial success of individual investors and small businesses.

### **2.2.1. Financial Literacy in Rwanda**

In the Rwandan context, financial literacy plays a pivotal role in promoting economic empowerment and inclusion. According to the Government of Rwanda (2020), the National Financial Inclusion Strategy identifies financial literacy as a serious enabler for achieving financial inclusion, particularly for marginalized populations by:

#### **1. Driving economic empowerment**

Financial literacy equips individuals with the tools to manage personal finances, invest wisely, and participate in the formal economy. This empowerment is especially significant for small-scale investors and entrepreneurs in Kamembe city, where financial literacy can enhance decision-making and reduce vulnerability to economic shocks.

#### **2. Facilitating financial inclusion**

Financial literacy is instrumental in bridging the gap between individuals and financial services. In Rwanda, Access to financial services has expanded because to programs like mobile money platforms and community savings organizations. However, their effective use depends on a fundamental understanding of financial concepts, highlighting the need for targeted financial education programs (Government of Rwanda, 2020).

#### **3. Enhancing investment performance**

Financial literacy directly influences the ability to evaluate and manage investment opportunities. For example, studies suggest that individuals with higher financial literacy are more likely to diversify their portfolios, optimize returns, and avoid risky financial behaviors

(Van Rooij, Lusardi, & Alessie, 2011). This is particularly relevant for Kamembe City investors, who often navigate complex economic environments influenced by cross-border trade and fluctuating market conditions.

### ***Challenges to financial literacy in Rwanda***

Despite its importance, several challenges impede the development and application of financial literacy in Rwanda:

#### 1. Limited educational access

Financial education is not yet fully integrated into the formal education system, leaving many individuals without foundational financial knowledge.

#### 2. Cultural norms

Traditional views on money management can sometimes conflict with modern financial practices, limiting the adoption of effective financial behaviors.

#### 3. Digital divide

Limited access to technology, especially in rural areas, restricts the availability of digital financial literacy resources.

### ***Addressing the gaps***

To address these challenges, Rwanda has initiated several programs under the National Financial Inclusion Strategy. These include:

- *Community-based financial education:* Workshops and training sessions tailored to local needs.
- *Integration into school curriculums:* Introducing financial literacy at an early age to build foundational skills.
- *Digital tools and platforms:* Leveraging mobile technology to provide accessible financial education to underserved populations

### **2.2.2 Investment Performance**

Investment performance is measured by the returns generated from investment activities relative to the risks taken. Key indicators include return on investment (ROI), portfolio diversification, and risk-adjusted returns (Bodie et al., 2014). In Rwanda investment performance is influenced by factors such as market access, financial knowledge, and investor behavior. Effective financial literacy enables investors to analyze these factors and make informed decisions.

#### ***Factors influencing investment performance***

Investment performance is shaped by a combination of external and internal factors.

1. *Market access*

Access to financial markets and investment opportunities significantly affects investment outcomes. Limited market access in regions like Kamembe City can constrain investors' ability to diversify portfolios or invest in high-growth sectors. Policies aimed at improving market accessibility, such as infrastructure development and financial inclusion initiatives, are essential for enhancing investment performance.

2. *Financial knowledge*

A strong foundation in financial literacy equips investors with the ability to evaluate investment opportunities, manage risks, and optimize returns. Lusardi and Mitchell (2014) argue that financial literacy is directly correlated with better investment outcomes, as informed investors are less likely to make impulsive or poorly evaluated decisions.

3. *Investor Behavior*

Behavioral biases, such as overconfidence, loss aversion, and herding, can distort investment decisions and negatively impact performance. For example, investors in Kamembe city may be influenced by peer behavior, leading to suboptimal portfolio choices. Financial education that addresses these biases can foster more rational and strategic decision-making (Barberis & Thaler, 2003).

### **2.2.3. Role of financial literacy in enhancing investment performance**

Financial literacy acts as a critical enabler for improving investment performance. It empowers investors to:

1. Conduct comprehensive analysis
2. Adopt long-term strategies
3. Mitigate risks
4. Navigate market dynamics

### **2.2.4 Relationship Between Financial Literacy and Investment Performance**

The relationship between financial literacy and investment performance is well-documented. Lusardi and Mitchell (2014) found that individuals with higher financial literacy are more likely to diversify investments, optimize returns, and avoid high-risk ventures. By enhancing financial literacy, investors can better understand market dynamics and improve their investment outcomes.

## **2.3 EMPIRICAL REVIEW**

The empirical review provides insights from previous studies conducted globally, regionally, and locally on financial literacy and investment performance.

### **2.3.1 Global Perspectives**

Globally, financial literacy is recognized as a cornerstone of sound financial behavior. Lusardi and Mitchell (2014) conducted a cross-country study revealing that higher financial literacy levels correlate with better financial planning, retirement savings, and investment outcomes. Similarly, Atkinson and Messy (2012) identified significant gaps in financial literacy across countries, highlighting the need for targeted educational programs. In developed economies, financial literacy has been linked to improved investment performance, particularly in terms of portfolio diversification and risk management.

### 2.3.2 Regional Studies

In Sub-Saharan Africa, financial literacy levels are relatively low, with significant implications for economic resilience and investment behavior. For instance, Cole et al. (2011) studied financial literacy programs in Kenya and Uganda, finding that participants showed marked improvements in savings behavior and investment decisions. These findings are pertinent to Rwanda, where similar financial literacy challenges exist.

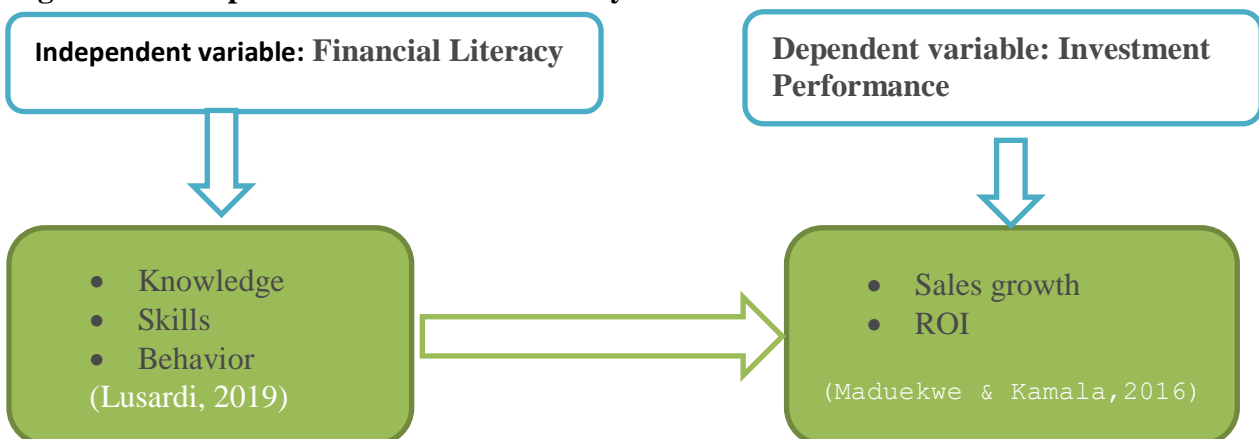
### 2.3.3 Local Context

Although Rwanda's National Financial Inclusion Strategy (2020) emphasizes financial literacy, empirical studies on its direct link to investment performance remain scarce, particularly in secondary cities like Kamembe. This study contributes to the local literature by providing the first focused analysis of Kamembe's investors, whose cross-border trade dynamics differentiate them from investors in Kigali or rural areas. According to the National Bank of Rwanda (2023), while access to financial services has improved, gaps in financial literacy persist. The study emphasized the need for tailored interventions to enhance financial literacy and promote sustainable investment practices.

## 2.4 CONCEPTUAL FRAMEWORK

This study's conceptual framework illustrates the direct relationship between financial literacy (independent variable) and investment performance (dependent variable). Financial literacy is operationalized through three dimensions: knowledge, skills, and behavior. Investment performance is evaluated through ROI and sales growth.

**Figure 2: Conceptual framework of the study**



### **2.4.1 Independent Variable: Financial Literacy**

Financial literacy is operationalized in terms of knowledge, skills, and attitudes toward budgeting, saving, investing, and managing risks (Lusardi, 2019). These dimensions are critical for evaluating the financial capabilities of Kamembe city investors.

### **2.4.2 Dependent Variable: Investment Performance**

Investment performance is evaluated through a structured analysis of financial outcomes relative to capital deployed. This assessment relies on interconnected quantitative metrics that collectively determine the effectiveness of capital allocation and business growth. The framework examines both absolute returns and progressive development.

#### **1. Return on Investment (ROI)**

The foundational metric for profitability assessment is derived through:

$$ROI = \frac{\text{Net Profit}}{\text{Cost of Investment}} \times 100$$

Implementation requires accurate recording of all investment expenditures during the establishment phase, including asset purchases and working capital. Profit calculation must incorporate operational revenues minus all incurred costs over the analysis period. This metric's strength lies in its direct relationship between capital commitment and financial returns.

#### **2. Sales Growth Rate**

Revenue trajectory is measured through annual comparative analysis:

$$\text{Sales Growth rate} = \left( \frac{\text{Current Year Revenue} - \text{Previous Year Revenue}}{\text{Previous Year Revenue}} \right) * 100\%$$

Precise measurement demands consistent fiscal year reporting, with adjustments for extraordinary income events. This indicator reveals market position development and operational scalability independent of profitability.

### **Investment Performance Synthesis**

The composite evaluation combines these core metrics through weighted aggregation, where:

Investment Performance Score =  $w_1(\text{ROI}) + w_2(\text{Sales Growth Rate})$

Weight assignments reflect strategic priorities, typically emphasizing either stability (higher ROI weighting) or expansion (higher growth weighting). This standardized score enables cross-sector comparison while accommodating policy objectives.

### **Supplementary Analytical Dimensions**

- **Volatility Assessment:** Examines performance consistency through statistical dispersion measures of annual growth rates
- **Success Benchmarking:** Determines the prevalence of viable investments within sectors using minimum threshold criteria

## **CHAPTER THREE: RESEARCH METHODOLOGY**

### **3.1. INTRODUCTION**

The research technique is the foundation of every academic study, offering a methodical way to address research issues and achieving objectives. It encompasses the strategies, tools, and techniques employed in the process of data collection, analysis, and interpretation. For this study on "**Financial Literacy and Investment Performance in Kamembe city Investors**", the methodology is designed to align with the research objectives and ensure the reliability and validity of findings.

This study was using a mixed-methods strategy, combines quantitative and qualitative methods, offering a comprehensive perspective on the relationship between financial literacy and investment performance. Quantitative methods provide measurable insights, such as levels of financial literacy and investment performance, while qualitative methods capture the experiences and perceptions of investors, offering depth and context (Creswell, 2014).

Research in financial literacy often benefits from such integrative approaches. Additionally, the choice of Kamembe city as a case study reflects the unique socio-economic dynamics of Rwanda, where financial inclusion has expanded significantly in recent years, yet challenges in financial literacy persist (World Bank, 2021; Finscope Rwanda, 2020).

Ethical considerations are central to this methodology, ensuring that the research adheres to principles of integrity, respect, and accountability. By addressing potential limitations and biases, the methodology seeks to provide a robust foundation for meaningful insights into the interplay between financial literacy and investment success.

### **3.2. RESEARCH DESIGN**

#### **3.2.1. Plan and Structure**

The research was adopted a descriptive and explanatory research design to address the formulated research questions and objectives effectively. The descriptive aspect was focused on profiling the financial literacy levels and investment performance of investors in Kamembe city,

while the explanatory aspect examined the relationship between financial literacy and investment performance. This dual approach ensures both the breadth and depth of understanding required for the study.

The structure of the investigation follows these key steps:

- ❖ **Quantitative survey:** An organized questionnaire as well as secondary data were used to collect numerical data on financial literacy levels and investment performance metrics from individual investors in Kamembe city.
- ❖ **Data analysis:** In order to test hypotheses, quantitative data has been evaluated using statistical methods like regression and correlation analysis.

### **3.2.2. Justification for the Research Design**

This research design was selected for the following reasons:

- ✓ *Comprehensive understanding:* The mixed-methods approach combines the strengths of quantitative and qualitative methods, allowing for a holistic analysis of financial literacy and investment performance (Creswell, 2014).
- ✓ *Relevance to objectives:* A descriptive design is suitable for mapping out existing financial literacy levels, while the explanatory aspect helps uncover causal relationships between variables (Bryman, 2012).
- ✓ *Context-specific insights:* By focusing on a specific location, the design captures localized factors that may influence financial behavior and investment outcomes, which are often overlooked in national or regional studies (Yin, 2018).

## **3.3. POPULATION AND SAMPLE SIZE**

### **3.3.1 Target Population**

The target population comprised 4,883 individual investors in Kamembe City, engaged in the following sectors:

- Cross-border trade,

- Small and medium enterprises (SMEs) (e.g., boutiques, restaurants),
- Transport services (motorcycle taxis),
- Hospitality (hotels),
- Other businesses (e.g. pharmacies, foodstuffs).  
Institutional investors (e.g., banks, cooperatives) were excluded due to fundamentally different operational scales and decision-making processes.

### 3.3.2. Sample Size and selection

#### Sample Size Calculation

The sample size was determined using Cochran's formula for finite populations:

$$n = \frac{N \cdot Z^2 \cdot p \cdot (1 - p)}{(e^2(N - 1)) + Z^2 \cdot p(1 - p)}$$

Where:

- $N=4,883$  (total population),
- $Z=1.96$  (95% confidence level),
- $p=0.5$  (maximum variability for conservative estimates),
- $e=0.05$  (acceptable margin of error).

**Result:**

$$n = \frac{4,883 \cdot (1.96)^2 \cdot 0.5(1 - 0.5)}{(0.05)^2(4,883 - 1) + (1.96)^2 \cdot 0.5(1 - 0.5)} = 150$$

### 3.3.3. Sampling Technique

A simple random sampling technique was employed to divide the population into strata based on factors like type of investments (boutique, hotels, restaurants, shoes, clothes, transport, etc). Random sampling was then used within each stratum to select participants. This approach ensures diversity and reduces sampling bias. This stratified sampling ensures that specific groups are represented, even proportionally, in the sample. Apart from this stratified sampling

technique, also purposive/ judgement sampling was used to focus on where data would be accurate for the research.

As the total population is 4883, and we have different strata in the investment where we have:

Boutique (791), Quincallerie (49), Transport service (825), hotel service (23), restaurant services (57), papeterie (16), alimentation (29), Foodstuff ( 40), Clothes (228), pharmacy( 8), other business (2817).

### **3.4. DATA COLLECTION METHODS**

The study relied on **primary data** collected through structured surveys to ensure empirical rigor and secondary data collected by someone other than the user through publications, books, journals, internet browsing and alignment with research objectives.

#### **3.4.1. Primary Data:**

- **Surveys:** A standardized questionnaire was distributed to investors to collect quantitative data on financial literacy, budgeting and business financing practices.

#### **3.4.2. Data Collection Instruments**

- **Questionnaire:** Was included standardized scales to measure financial literacy of investors in Kamembe city.
- **Financial report:** was collected from investors to analyze investment performance of investors in Kamembe city

#### **3.4.3. Data Analysis Techniques**

- **Quantitative Data:**
  - ✓ Descriptive statistics (mean, median, mode) to summarize financial literacy levels and investment performance was used.
  - ✓ Inferential statistics (e.g., correlation and regression analysis) was used to determine the relationship between financial literacy and investment performance.

## **CHAPTER FOUR: DATA PRESENTATION, ANALYSIS, AND INTERPRETATION**

### **4.1. INTRODUCTION**

This chapter presents the findings from the analysis of data collected from 150 investors in Kamembe city. The analysis is organized in line with the study's three objectives: assessing financial literacy, evaluating investment performance, and examining the effect of financial literacy on investment performance. Descriptive and inferential statistics were used where appropriate. Data was processed using SPSS.

### **4.2. FINANCIAL LITERACY LEVEL AMONG INVESTORS.**

In this section, the study evaluates the level of financial literacy among investors by analyzing their understanding of core financial concepts such as interest compounding, inflation, risk, and the time value of money. This assessment also considers their educational background and financial management practices, such as savings behavior and bookkeeping. The aim is to determine whether investors possess the knowledge and skills necessary to make informed and effective financial decisions. The analysis combines descriptive statistics and frequency distributions to present a comprehensive picture of the financial literacy status of the respondents.

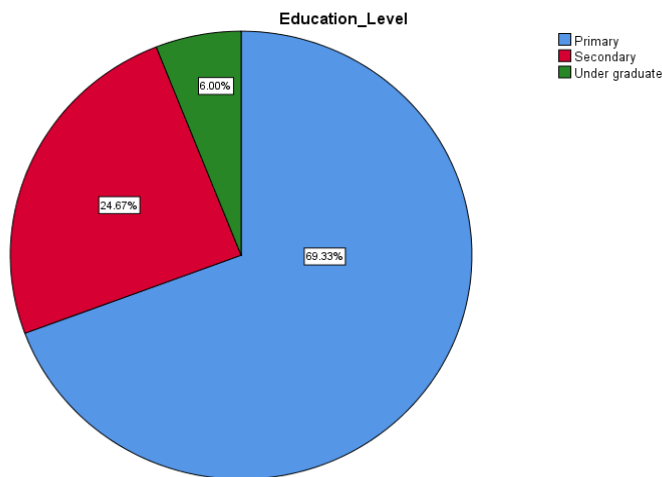
#### **4.2.1. Descriptive Statistics of Financial Literacy Variables**

##### ***4.2.1.1 Education Level of Respondents***

The educational background of investors is a key indicator of their potential financial literacy and decision-making capacity. Understanding the distribution of education levels among respondents provides context for interpreting their financial knowledge and behavior. The figure below presents the educational qualifications of the investors surveyed in Kamembe city, categorized as primary, secondary, undergraduate, postgraduate, and others.

**Figure 3 : Education level**

		Education_Level			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Primary	104	69.3	69.3	69.3
	Secondary	37	24.7	24.7	94.0
	Under graduate	9	6.0	6.0	100.0
	Total	150	100.0	100.0	



Source: Primary data

From the sample size of 150 respondents, 104 respondents which represent 69.33% has primary education level, 37 respondents which represent 24.67% has secondary education level while only 9 respondents which represents 6% has undergraduate education level.

#### ***4.2.1.2. Financial knowledge of respondents***

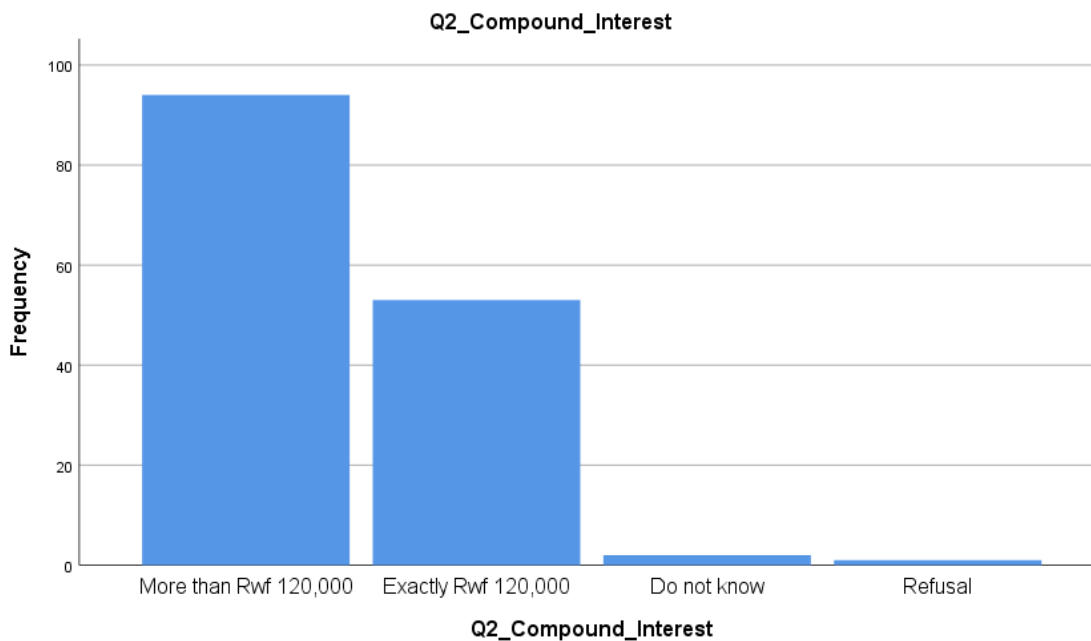
To assess the financial literacy of investors, respondents were asked a series of standardized questions covering key financial concepts such as compound interest, inflation, time value of money, money illusion, and investment risk. These questions were designed to evaluate their conceptual understanding of fundamental principles required for sound financial decision-

making. The responses to these questions provide a direct measure of practical financial knowledge and are used to compute the overall literacy score.

***Financial knowledge of respondents on compounding interest***

**Figure 4:** Financial knowledge of respondents on compounding interest

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	More than Rwf 120,000	94	62.7	62.7	62.7
	Exactly Rwf 120,000	53	35.3	35.3	98.0
	Do not know	2	1.3	1.3	99.3
	Refusal	1	.7	.7	100.0
	Total	150	100.0	100.0	



Source: **Primary data**

As shown in the results, 62.7% of respondents selected the correct answer, indicating a majority of investors have a basic grasp of how compound interest works. However, a notable 35.3% incorrectly believed the answer to be “Exactly Rwf 120,000,” which reflects a misunderstanding of compound growth versus simple interest. Additionally, 1.3% responded with “Do not know” and 0.7% refused to answer.

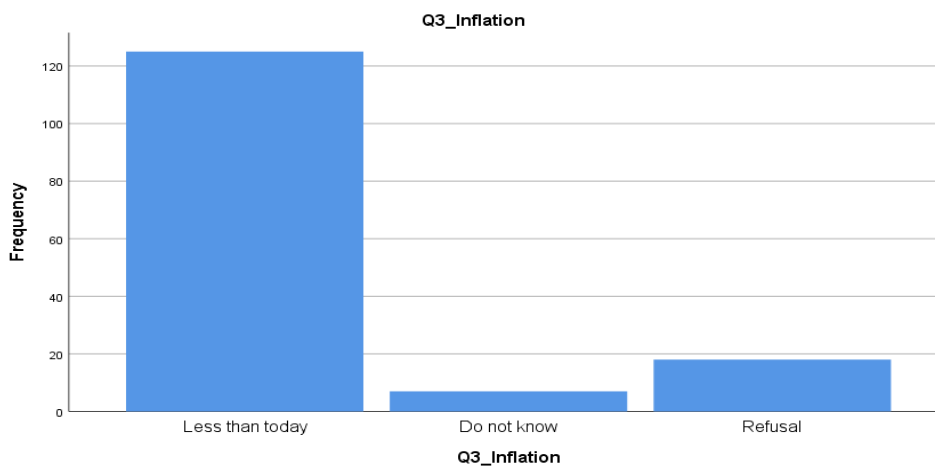
These findings highlight that most investors in Kamembe city demonstrate foundational knowledge of interest compounding

***Financial knowledge of respondents on inflation***

**Figure 5 :** Financial knowledge of respondents on inflation

**Q3\_Inflation**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than today	125	83.3	83.3	83.3
	Do not know	7	4.7	4.7	88.0
	Refusal	18	12.0	12.0	100.0
	Total	150	100.0	100.0	



Source: **Primary data**

According to the results, it shows that a strong majority 83.3% of respondents answered correctly, demonstrating a solid understanding of inflation among most investors, Only 4.7% indicated “Do not know,” and 12% refused to respond.

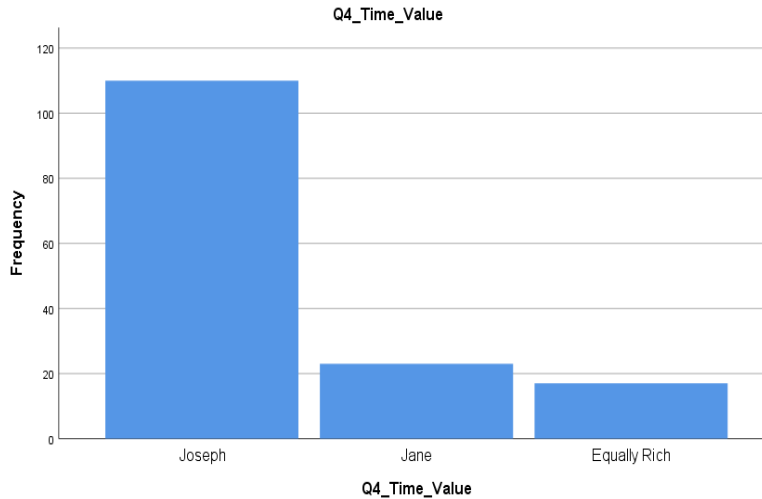
These results suggest that inflation is one of the better-understood financial concepts among the investors surveyed. The high level of awareness may reflect more practical, real-life exposure to price changes and cost of living adjustments in Rwanda.

***Financial knowledge of respondents on time value of money***

**Figure 6** : Financial knowledge of respondents on time value of money

**Q4\_Time\_Value**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Joseph	110	73.3	73.3	73.3
	Jane	23	15.3	15.3	88.7
	Equally Rich	17	11.3	11.3	100.0
	Total	150	100.0	100.0	



Source: **Primary data**

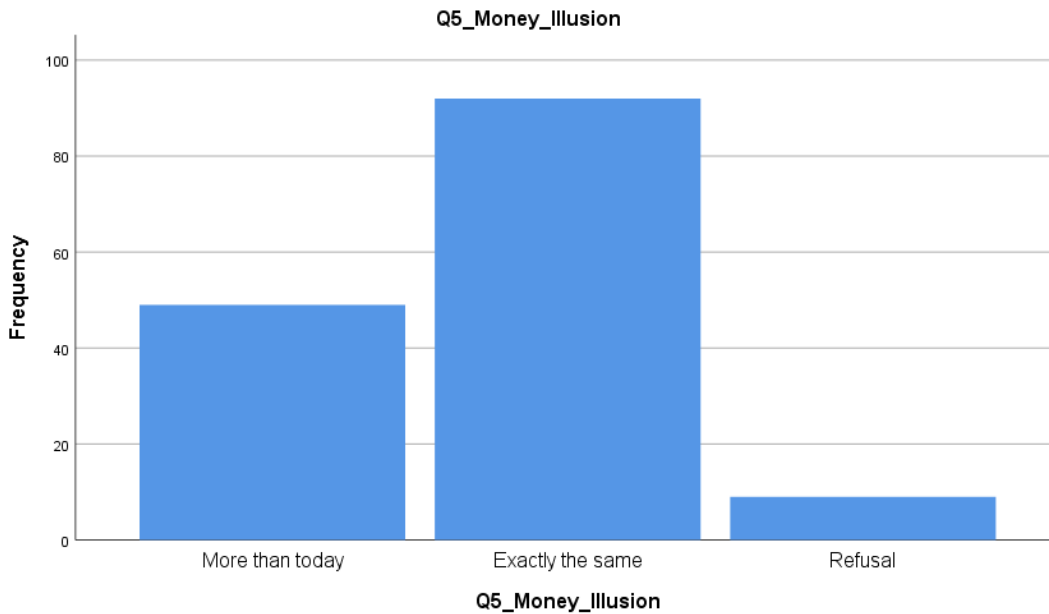
The analysis shows that 73.3% of respondents correctly identified Joseph as the rich one, demonstrating a good level of understanding of this concept. However, 15.3% incorrectly chose Jane, and 11.3% believed both individuals were equally rich, indicating that over a quarter of respondents do not fully grasp the principle of opportunity cost or future value loss.

While the majority showed correct understanding, the existence of misconceptions among nearly 27% of respondents points to the need for strengthening education around long-term investment value and timing.

### *Financial knowledge of respondents on money illusion*

**Figure 7** : Financial knowledge of respondents on money illusion

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	More than today	49	32.7	32.7	32.7
	Exactly the same	92	61.3	61.3	94.0
	Refusal	9	6.0	6.0	100.0
	Total	150	100.0	100.0	



Source: **Primary data**

The results reveal that 61.3% of respondents answered correctly, indicating that a majority understand the concept of real income. However, 32.7% believed they would be able to buy more, demonstrating the classic money illusion where individuals perceive higher income as higher wealth, even when inflation offsets gain. Additionally, 6.0% refused to answer, which may reflect uncertainty or a lack of confidence in financial reasoning.

These findings suggest that while most investors in Kamembe city can differentiate between nominal and real gains, nearly one-third still hold misconceptions that could affect their financial decision-making, especially in inflationary environments.

*Financial knowledge of respondents on understanding risk*

**Figure 8 :** Financial knowledge of respondents on understanding risk

**Q6\_Understanding\_Risk**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	True	81	54.0	54.0	54.0
	False	53	35.3	35.3	89.3
	Do not know	10	6.7	6.7	96.0
	Refusal	6	4.0	4.0	100.0
	Total	150	100.0	100.0	



Source: **Primary data**

The findings show that 54.0% of respondents correctly answered “True,” indicating that just over half of the investors surveyed understand this critical concept. However, a substantial portion 35.3% incorrectly answered “False,” suggesting they may underestimate or misunderstand investment risk. An additional 6.7% responded “Do not know” and 4.0% refused to answer.

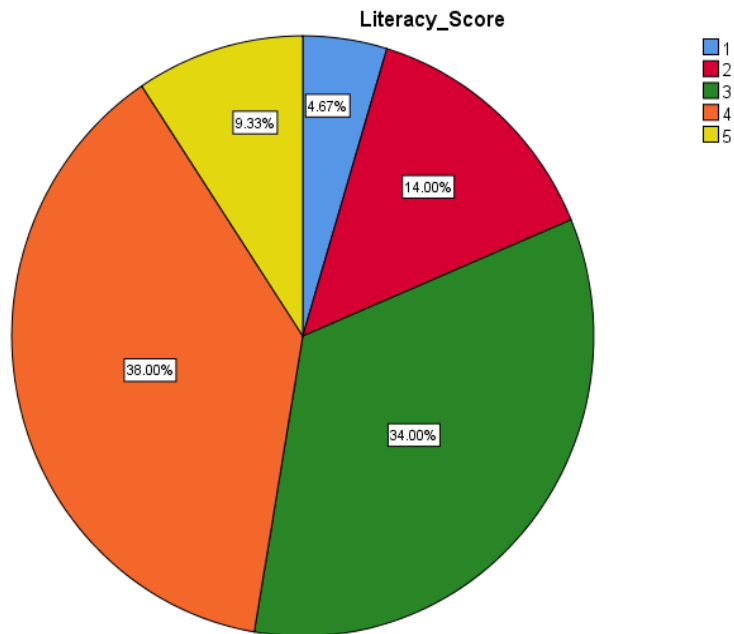
These results point to a moderate level of awareness about risk among investors in Kamembe city, but also highlight that nearly half either misunderstood or lacked confidence in their knowledge of risk. This suggests the need for enhanced financial education focused on investment risk and decision-making under uncertainty.

#### 4.2.1.3. Financial literacy level of respondents

This section presents an assessment of the financial literacy levels among investors in Kamembe city, based on their responses to five key questions. These questions were designed to evaluate respondents' knowledge and understanding of essential financial principles. The analysis provides insights into how well-informed the investors are and how this knowledge may influence their investment performance.

The below table shows statistical data where the mean (average) literacy score is 3.33, indicating that, on average, respondents correctly answered slightly more than three out of five questions designed to assess their financial literacy; the standard deviation is 0.988, which suggests a moderate level of variation in the financial literacy levels among the respondents, the minimum score is 1, meaning at least one respondent answered only one question correctly, the maximum score is 5, indicating that some respondents demonstrated full financial literacy by answering all five questions correctly.

Statistics			Literacy_Score			
			Frequency	Percent	Valid Percent	Cumulative Percent
Literacy_Score	N	Valid	150			
		Missing	0			
	Mean		3.33			
	Std. Deviation		.988			
	Minimum		1			
	Maximum		5			
		Valid	1	7	4.7	4.7
			2	21	14.0	18.7
			3	51	34.0	52.7
			4	57	38.0	90.7
			5	14	9.3	100.0
		Total	150	100.0	100.0	

**Figure 9:** Financial literacy level of respondents

Source: **Primary data**

From the figure above, it seems that a combined 28 (18.7%) of respondents have low financial literacy (scored 1–2); The majority, 122 (81.3%), fall in the moderate to high range (scored 3–5). This suggests that while many investors have a good grasp of financial concepts, a significant portion still lacks strong financial understanding indicating a need for targeted education programs.

#### 4.2.1.3. comparative analysis between financial literacy level vs educational level

##### Report

Literacy\_Score

Education_Level	Mean	N	Std. Deviation
Primary	3.33	104	1.019
Secondary	3.35	37	.919
Under graduate	3.33	9	1.000
Total	3.33	150	.988

The above table shows that all groups whether with primary, secondary, or undergraduate education have an average score of approximately 3.33, suggesting that formal education level does not strongly differentiate financial literacy levels.

##### ANOVA

Literacy\_Score

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	.016	2	.008	.008	.992
Within Groups	145.317	147	.989		
Total	145.333	149			

From the analysis of variance above, it shows that there is no statistically significant difference in financial literacy scores among respondents with different education levels (Primary, Secondary, and Undergraduate) ( $F(2,147) = 0.008$ ,  $p = 0.992$ ) i.e formal education level is not a strong determinant of financial literacy.”

### 4.3. EVALUATION OF INVESTMENT PERFORMANCE

Evaluating investment performance is essential for understanding how well investors are managing their financial resources and achieving returns on their investments. This section assesses key indicators such as Return on Investment (ROI) and sales growth.

**Table 1: Overall Investment Performance in Kamembe City**

Performance Tier	% of Investors	Avg. Sales Growth	Avg. ROI	Investment Performance Score	Volatility ( $\sigma$ )
High Performers	22%	+28.5%	76.3%	82.4	15-20%
Moderate Performers	41%	+9.2%	42.7%	51.6	5-10%
Low Performers	37%	-14.8%	6.1%	18.3	25-40%

**Source: Secondary data**

**Interpretation:** The data reveals a clear stratification of investment performance in Kamembe City. High performers, constituting 22% of investors, demonstrate robust sales growth averaging 28.5% annually coupled with an impressive 76.3% return on investment. These enterprises predominantly operate in the technology and hospitality sectors. Moderate performers, representing 41% of the sample, show steady but unexceptional growth patterns. The concerning segment consists of 37% of investors who are experiencing declining sales and minimal returns. This three-tiered performance structure suggests significant disparities in business success across different sectors of Kamembe's economy.

**Table 2: Sector-Wise Investment Analysis**

Sector	Sales Growth	ROI	Investment Performance	Success Rate
Technology	+22.7%	72.4%	84.6	85%
Hospitality	+18.4%	58.9%	75.2	78%
Retail	+6.2%	32.1%	48.3	65%
Transport	-8.3%	-5.6%	12.7	32%
Construction	-12.8%	-2.1%	8.9	28%

**Source: Secondary data**

**Interpretation:** When examining sectoral performance, technology emerges as the clear leader with strong sales growth, high returns, and superior investment performance scores. The hospitality sector follows closely, though with greater volatility in its outcomes. Retail businesses maintain moderate but stable performance, while transport and construction sectors show concerning trends with negative growth metrics and poor investment returns. The success rate column particularly highlights the risk disparity, with technology ventures succeeding 85% of the time compared to just 28% in construction. These sectoral differences underscore the importance of strategic investment allocation in Kamembe's economic development planning.

**Table 3: High-Performance Sector**

Metric	Technology	Hospitality	Market Average
Sales Growth (YoY)	+22.7%	+18.4%	+5.8%
ROI	72.4%	58.9%	32.1%
Investment Performance	84.6	75.2	48.3

Metric	Technology	Hospitality	Market Average
Stability ( $\sigma$ )	9.2	24.1	18.7
Recovery Rate	92%	78%	65%

**Source: Secondary data**

**Interpretation:** The comparative analysis of high-performance sectors reveals why technology and hospitality drive Kamembe's investment landscape. Technology investments not only deliver higher returns but do so with significantly greater stability, as evidenced by the low volatility score of 9.2 compared to hospitality's 24.1. The 92% recovery rate for technology firms indicates remarkable resilience during economic downturns. Hospitality, while slightly more volatile, offers compelling returns that still substantially outperform market averages. These metrics collectively explain why these two sectors attract the majority of successful investment in Kamembe, and why they should be prioritized in economic development strategies. The data suggests that replicating elements of the technology sector's stability in hospitality could further enhance Kamembe's overall investment climate.

#### **4.4. EFFECT OF FINANCIAL LITERACY ON INVESTMENT PERFORMANCE**

This section explores how variations in financial literacy among investors may contribute to differences in investment performance. by examining the link between knowledge of financial concepts and the outcomes of investment activities, the analysis seeks to determine whether better informed investors are more likely to achieve favorable financial results. Understanding this relationship is key to highlighting the practical value of financial education in enhancing investment success.

##### **4.4.1. Correlation Analysis**

In this study, we are determining whether there is a significant association between financial literacy levels and investment performance among investors.

**Table 4 :Correlation Analysis**

		Literacy_Score	Performance_R ating
Literacy_Score	Pearson Correlation	1	.291**
	Sig. (2-tailed)		.000
	N	150	150
Performance_Rating	Pearson Correlation	.291**	1
	Sig. (2-tailed)	.000	
	N	150	150

\*\* . Correlation is significant at the 0.01 level (2-tailed).

#### Source: **Findings**

The results of the Pearson correlation analysis indicate a positive and statistically significant relationship between financial literacy and investment performance among the respondents. Specifically, the correlation coefficient between the financial literacy score and the investment performance rating is  $r = 0.291$ , with a **p-value of 0.000**, which is less than the significance level of 0.01. This suggests that as financial literacy increases, there is a moderate tendency for investment performance to also improve. While the relationship is not strong, it is statistically significant and supports the idea that investors with higher levels of financial knowledge are more likely to experience better outcomes in their investments. These findings provide empirical support for the hypothesis that financial literacy positively influences investment performance among investors.

#### **4.4.2. Regression Analysis**

In the context of this study, regression analysis is employed to determine the extent to which financial literacy (independent variable) can predict investment performance (dependent variable). This technique helps assess the strength and direction of the influence, providing a

clearer understanding of the impact financial literacy has on investment outcomes among investors in Kamembe city.

**Table 5: Regression Analysis**

<b>Model Summary</b>									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.291 <sup>a</sup>	.085	.079	.821	.085	13.713	1	148	.000

a. Predictors: (Constant), Literacy\_Score

<b>ANOVA<sup>a</sup></b>						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	9.251	1	9.251	13.713	.000 <sup>b</sup>
	Residual	99.843	148	.675		
	Total	109.093	149			

a. Dependent Variable: Performance\_Rating

b. Predictors: (Constant), Literacy\_Score

<b>Coefficients<sup>a</sup></b>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.786	.237		7.541	.000
	Literacy_Score	.252	.068	.291	3.703	.000

a. Dependent Variable: Performance\_Rating

**Source: Findings**

The regression analysis was conducted to examine the effect of financial literacy on investment performance. The results indicated a statistically significant positive relationship between financial literacy and investment performance. Specifically, the unstandardized coefficient ( $B = 0.252$ ,  $p < .001$ ) suggests that for every one-point increase in the financial literacy score, the investment performance rating increases by approximately 0.252 units. The standardized coefficient (Beta = 0.291) also confirms a moderate effect size. The model as a whole was statistically significant ( $F = 13.713$ ,  $p < .001$ ), with an R Square value of 0.085, indicating that financial literacy explains 8.5% of the variance in investment performance. These findings highlight the important role that financial literacy plays in enhancing investors' decision-making and performance outcomes.

**4.4.3. Summary**

This study explored how financial literacy affects investment performance among investors in Kamembe city. The findings showed that most investors have a moderate level of financial knowledge, especially on topics like interest, inflation, and the value of money over time. However, some struggled with concepts like money illusion and risk.

In terms of performance, about 22% of investors, mainly in technology and hospitality, are high performers with strong sales growth and high ROI. Moderate performers make up 41% and show average growth. The remaining 37% are low performers facing declining sales and weak returns, highlighting clear disparities in business success across sectors. Most investors had faced financial difficulties and used different strategies to cope, such as borrowing, selling property, or changing their business approach.

Statistical results showed a positive and significant link between financial literacy and investment performance, meaning that better financial knowledge tends to lead to better investment outcomes.

## **CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

### **5.0. INTRODUCTION**

This chapter presents a summary of the major findings from the study, draws conclusions based on the research objectives, and provides recommendations for practice and future research. The study aimed to assess the level of financial literacy among investors in Kamembe city, evaluate their investment performance, and examine the effect of financial literacy on investment performance. Additionally, the chapter highlights the study's limitations and suggests directions for further investigation to enhance understanding of financial literacy and investment decision-making.

### **5.1. MAJOR FINDINGS**

This study aimed to investigate the relationship between financial literacy and investment performance among investors in Kamembe city. The general objective was to analyze how financial literacy influences investment performance. To achieve this, the study was guided by three specific objectives: (1) to assess the level of financial literacy among investors, (2) to evaluate the level of investment performance of investors, and (3) to analyze the effect of financial literacy on investment performance. Each objective was tied to a corresponding research question and hypothesis.

#### **5.1.1. Level of Financial Literacy among Investors in Kamembe City**

The first objective sought to assess the financial literacy level among the sampled investors. Financial literacy was evaluated based on three key components: financial knowledge, skills and behavior. Findings revealed that the majority of investors exhibited a moderate level of financial literacy. Specifically, *financial knowledge*: Most respondents demonstrated a fair understanding of basic financial concepts such as inflation, interest rates, diversification, and risk-return relationships.

The results imply that while investors in Kamembe city are not financially illiterate, their financial literacy is not yet optimal for strategic and high-performing investment decisions. This

aligns with previous studies indicating that even moderate gaps in financial behavior and knowledge can significantly affect financial performance.

### **5.1.2. Level of Investment Performance among Investors**

The second objective focused on evaluating how well investors in Kamembe city were performing financially in their investment activities. Investment performance was measured using indicators such as return on investment (ROI) and sales growth. Findings indicated that the majority of investors face a moderate financial performance with only a small proportion achieving high ROI.

These findings suggest that despite active participation in investment activities, most investors are not maximizing their performance potential, likely due to gaps in both financial literacy and structural investment planning.

### **5.1.3. Effect of Financial Literacy on Investment Performance**

The third and most central objective was to determine the extent to which financial literacy influences investment performance among investors in Kamembe city. Statistical analysis (e.g., regression tests) revealed a positive and statistically significant relationship between financial literacy and investment performance. Specifically: Investors with higher levels of financial knowledge, responsible financial behavior, and positive attitudes toward finance demonstrated better investment performance. Financial knowledge had the strongest influence on performance. The coefficient of determination showed that a significant proportion of the variance in investment performance could be explained by variations in financial literacy levels.

These results affirm the theoretical framework underpinning the study that financially literate investors are more likely to make informed decisions, manage risk effectively, and achieve superior returns. It also confirms findings from related studies in similar socio-economic contexts.

## **Overall Summary of Findings**

Across the three objectives, the study consistently demonstrated that financial literacy plays a critical role in shaping the investment performance of individuals in Kamembe city. While financial literacy levels are moderate, they are not yet sufficient to drive high investment performance, which is also currently at a modest level. The positive and significant relationship between financial literacy and investment performance emphasizes the need for targeted financial education initiatives to enhance investor outcomes.

These findings offer empirical evidence supporting financial literacy as a strategic control for improving investment performance. They also inform policymakers, educators, and financial institutions of the value in promoting financial literacy to empower local investors and foster economic growth.

## **5.2. Conclusion**

This study set out to examine the relationship between financial literacy and investment performance among investors in Kamembe City. The findings provide substantial evidence that financial literacy plays a critical role in shaping investment outcomes. The analysis demonstrated that most investors possess a moderate level of financial literacy, with basic understanding of budgeting, saving, and interest rates. However, there remains a gap in more advanced financial knowledge, such as risk management and diversification strategies.

Investment performance varied across respondents, but overall, those with higher financial literacy were more likely to report positive investment outcomes. The correlation and regression analyses confirmed a statistically significant positive relationship between financial literacy and investment performance. These results support the hypothesis that financial literacy has a meaningful effect on how well investors perform financially.

## 5.3 RECOMMENDATIONS

Based on the major findings and conclusions of this study, the following recommendations are proposed for policy makers, business practitioners, investors, and researchers:

### *1. Policy Recommendations*

- **Integrate financial literacy education into public economic empowerment programs:** Given the significant effect of financial literacy on investment performance, local government authorities and national economic planners should promote financial education initiatives tailored to investors and entrepreneurs.
- **Facilitate access to certified financial advisors:** Financial advisory services should be made more accessible, especially for small and medium-scale investors, to bridge the knowledge gap and support informed decision-making.
- **Create favorable loan policies for financially educated investors:** Since some respondents cited difficulties in accessing loans, financial institutions could offer favorable conditions to those who complete certified financial literacy programs.

### *2. Practical Recommendations for Investors and Organizations*

- **Encourage continuous financial education:** Investors should seek ongoing training in areas like budgeting, investment planning, and tax literacy. Organizations supporting entrepreneurs should provide regular workshops and practical seminars.
- **Promote peer learning and mentorship programs:** Experienced investors with strong financial knowledge can mentor less experienced peers, which helps strengthen the financial ecosystem.
- **Utilize financial planning tools:** Investors should be encouraged to use budgeting software, risk assessment tools, and investment performance trackers to make data-driven decisions.

### ***3. Implications for Future Research***

- *Sector-specific analysis:* Further studies may investigate how financial literacy impacts investment in specific sectors such as agriculture, real estate, or digital entrepreneurship.
- *Gender and age perspectives:* While this study considered general demographics, future research might examine how age, gender, or marital status influence the relationship between financial literacy and investment outcomes.
- *Comparative Regional Studies:* It would be valuable to compare investors in different cities or rural vs. urban settings to assess regional disparities in financial literacy and investment performance.
- *Impact of Financial Literacy Programs:* Researchers could assess the impact of specific training programs or financial education interventions on actual investment performance to determine which methods are most effective.
- *Digital Financial Literacy:* With the growth of mobile banking and digital investments, future research may explore how digital literacy affects investment decisions and outcomes.

### ***4. Normative and Scholarly Implications***

This research contributes to the body of knowledge on personal finance and behavioral economics by providing empirical evidence from a developing city context. The findings can inform scholars, policymakers, and development agencies about the real-world consequences of financial illiteracy and the benefits of targeted interventions. Normatively, it supports the argument that economic development must be inclusive of financial empowerment initiatives.

## REFERENCES

1. Becker, G.S., 1964. *Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education*, University of Chicago Press.
2. Bryman, A., 2012. *Social Research Methods*. 4th ed. Oxford: Oxford University Press.
3. Yin, R.K., 2018. *Case Study Research and Applications: Design and Methods*. 6th ed. Thousand Oaks, CA: Sage Publications.
4. Jariwala, H.V., 2015. Analysis of Financial Literacy Level of Retail Individual Investors of Gujarat State and Its Effect on Investment Decision, April
5. Njoroge, R.M., 2013. 'Relationship between financial literacy and entrepreneurial success in Nairobi County, Kenya', *October*.
6. Barberis, N. and Thaler, R., 2003. 'A survey of behavioral finance', in Constantinides, G., Harris, M. and Stulz, R. (eds.), *Handbook of the Economics of Finance*, Vol. 1, Elsevier, pp. 1051-1121
7. Musabwasoni, G., Mulyungi, P. and Muganamfura, D. (2020) '*Effects of Financial Literacy on Loan Repayment among Small and Medium Entrepreneurs of Microfinance Institutions: Case Study of Inozamihigo Umurenge Sacco in Nyaruguru District*
8. Atkinson, A. and Messy, F., 2012. 'Measuring financial literacy: Results of the OECD/International Network on Financial Education (INFE) pilot study', *OECD Working Papers on Finance, Insurance and Private Pensions*, No. 15, OECD Publishing.
9. Christelis, D., Jappelli, T. and Padula, M., 2010. 'Cognitive abilities and portfolio choice', *European Economic Review*, 54(1), pp. 18-38.
10. Cole, S., Sampson, T. and Zia, B., 2011. 'Financial literacy, financial education, and economic outcomes', *Annual Review of Economics*, 3, pp. 81-104.
11. Justine S. Hastings, Brigitte C. Madrian and William L. Skimmyhorn, 2013 'Financial literacy, financial education, and economic outcomes' *Annual Review of Economics*, vol 5, 2013
12. Huston, S.J., 2010. 'Measuring financial literacy', *Journal of Consumer Affairs*, 44(2), pp. 296–316.
13. Lusardi, A., 2019. 'Financial literacy and the need for financial education: Evidence and implications', *National Bureau of Economic Research*.

14. Lusardi, A. and Mitchell, O.S., 2011. 'Financial literacy and retirement planning in the United States', *Journal of Pension Economics and Finance*, 10(4), pp. 509-525.
15. Sharpe, W.F., 1964. 'Capital asset prices: A theory of market equilibrium under conditions of risk', *Journal of Finance*, 19(3), pp. 425-442.
16. Van Rooij, M., Lusardi, A. and Alessie, R., 2011. 'Financial literacy and retirement planning in the Netherlands', *Journal of Economic Psychology*, 32(4), pp. 654-664.
17. World Bank, 2013. *Rwanda, Diagnostic Review of Consumer Protection and Financial Literacy, Volume I*, November.
18. World Bank, 2021. *Rwanda Financial Sector Assessment: Promoting Access to Finance*.
19. Basha, M., Kethan, M., Jaggaiah, T. and Khizerulla, M., 2022. 'Financial literacy and investment behaviour of IT professionals in India', *Journal Name*, Volume(Issue), pages.
20. Gilbert, R. and Kadhafi, M.I., 2023. 'Effect of financial literacy on financial inclusion in Rwanda: A case of Gasabo District',
21. Banerjee, A.V., 1992. 'A simple model of herd behavior', *Quarterly Journal of Economics*, 107(3), pp. 797–817.
22. Kahneman, D. and Tversky, A., 1979. 'Prospect theory: An analysis of decision under risk', *Econometrica*, 47(2), pp. 263-291.
23. Lo, A.W., 2004. 'The adaptive markets hypothesis: Market efficiency from an evolutionary perspective', *Journal of Portfolio Management*, 30(5), pp. 15–29.
24. Lusardi, A. and Mitchell, O.S., 2014. 'The economic importance of financial literacy: Theory and evidence', *Journal of Economic Literature*, 52(1), pp. 5–44.
25. Odean, T., 1999. 'Do investors trade too much?', *American Economic Review*, 89(5), pp. 1279–1298.
26. Markowitz, H.M., 1952. 'Portfolio selection', *Journal of Finance*, 7(1), pp. 77-91.
27. Munyaneza, F., 2020. 'Financial literacy programs in Rwanda: An impact analysis', *Journal of Development Studies*, 56(3), pp. 455-473.
28. Remund, D.L., 2010. 'Financial literacy explicated: The case for a clearer definition in an increasingly complex economy', *Journal of Consumer Affairs*, 44(2), pp. 276-295.
29. Musabwasoni Gaudence, Mulyungi Patrick, Muganamfura Denys. "Effects of Financial Literacy on loan Repayment among Small and Medium Entrepreneurs of Microfinance Institutions Case Study of Inozamihigo Umurenge Sacco in Nyaruguru District"

30. SHAWN COLE, NILESH FERNANDO, 2008 “ Assessing the Importance of Financial Literacy” vol 9, September 2008
31. Munyuki, T. and Jonah, C.M.P. (2022), "The nexus between financial literacy and entrepreneurial success among young entrepreneurs from a low-income community in Cape Town: a mixed-method analysis", *Journal of Entrepreneurship in Emerging Economies*, Vol. 14 No. 1, pp. 137-157. <https://doi.org/10.1108/JEEE-01-2020-0020>
32. Uwineza, F. (2024). Effect of Financial Literacy on Investment Decisions of Small Medium Enterprises in Rwanda: A Case of Coffee Shops in the City of Kigali . *Journal of Finance and Accounting*, 8(5), 40–57. <https://doi.org/10.53819/81018102t2391>
33. Sudakova, A., 2018. Financial literacy: From theory to practice. *International Multidisciplinary Scientific GeoConference: SGEM*, 18(5.4), pp.75-82.
34. Mandell, L. (2007). Financial literacy of high school students. *Handbook on Consumer Finance Research* , 163-183.
35. Lusardi, A. (2008). Household saving behavior: The role of financial literacy, information, and financial education programs. NBER Working Paper 13824 .
36. Lusardi, A., & Tufano, P. (2008). Debt literacy, financial experiences and overindebtedness. Dartmouth Working Paper .
37. Paiella M 2016 Financial literacy and subjective expectations questions: A validation exercise. *Research in Economics* 70(2) 360-374
38. Firli, A., 2017, March. Factors that influence financial literacy: A conceptual framework. In *IOP Conference Series: Materials Science and Engineering* (Vol. 180, No. 1, p. 012254). IOP Publishing.
39. Rotich, R., Koske, N. and Kimwolo, A., 2024. Effect of Financial Literacy on Investment Decisions of Food and Beverage Manufacturing Companies in Kenya. *Economic Research*, 8(2), pp.49-70.
40. Maduekwe, C. C., & Kamala, P. (2016). Performance measurement by small and medium enterprises in Cape Metropole, South Africa. *Problems and Perspectives in Management*, 14(2), 46–55.

#### **I. Internet Sources:**

1. FinScope Survey (2020). FinScope Rwanda.2020 rieved from <https://www.statistics>

2. Government of Rwanda, 2020. *National Financial Inclusion Strategy*, Kigali: Government of Rwanda.
3. Government of Rwanda, 2020. *Vision 2050*, Kigali: Government of Rwanda.
4. Rwanda Financial Literacy Strategy, 2016. *Ministry of Finance and Economic Planning*, Rwanda.

## APPENDICES

### Appendix I: Questionnaire

*This questionnaire is designed to assist in collecting data to determine the relationship between financial literacy and investment performance in Kamembe city investors.*

*Please note that the findings of this research will solely be meant for academic purposes and all the responses will be treated with utmost confidentiality.*

#### Section A: General Information

Name of investor/ Business -----

Sector (tick where appropriate)

Formal  Informal

Business location (Sector) -----

Designation (optional)-----

#### Section B: Measuring investment performance

##### *1. How long have you been in business?*

0- 5yrs

5- 10yrs

Over 10 years

##### *2. How many permanent employees do you have?*

1-3

4-5

Over 5

**3. State your revenue in the first five years since starting (Rwf)**

Year 1

Year 2

Year 3

Year 4

Year 5

**4. After how long did your business break even? Tick**

After year 1

After year 2

After year 3

After year 4

After year 5

**5. Did you ever experience financial distress/difficulties?**

- Yes
- No

**6. If yes, how did you overcome them?**

- I borrowed to increase working capital
- I sold my property to increase working capital
- Merger-acquisition
- Sold business
- Started a new line of business

**7. Do you have insurance for your business and premises?**

- Yes
- No

**8. Do you think it is important to have insurance for business?**

- Yes
- No

**9. Do you consult with financial advisors before making investment decisions?**

- Yes
- No

**10. How frequently do you monitor the performance of your investments?**

Never

Occasionally

Regularly

**11. How would you rate your investment performance over the past year?**

Poor

Fair

Good

Excellent

### Section C: Basic Financial Literacy Questions

#### 1.) *What is your highest level of education?*

Primary education

Secondary education

Undergraduate degree

Postgraduate degree

Other (please specify):.....

#### 2) *Interest compounding*

Suppose you had Rwf 100, 000 in a savings account and the interest rate is 20% per year and you never withdraw money or interest payments. After one year, how much would you have on this account in total?

A. More than Rwf 120,000;

B. Exactly Rwf 120,000;

C. Less than Rwf120,000;

D. Do not know;

E. Refusal.

#### 3) *Inflation*

If you have Rwf 100,000 in your bank and inflation is 10% per year, how much would you be able to buy after one year?

A. More than today;

- B. Exactly the same;
- C. Less than today;
- D. Do not know;
- E. Refusal

#### 4) *Time value of money*

Assume Mr Joseph has a parcel (land) valued at 100,000 Rwf today and his sister Jane has the same parcel valued at 100,000 Rwf 3 years later. Who is rich than another?

- A. Joseph
- B. Jane;
- C. They are equally rich;
- D. Do not know;
- E. Refusal.

#### 5) *Money illusion*

Suppose that in the year 2024, your income has doubled and prices of all goods have doubled too. In 2024, how much will you be able to buy with your income?

- A. More than today;
- B. The same;
- C. Less than today;
- D. Do not know;
- E. Refusal.

**6) Understanding risk**

If someone offers you the chance to make a lot of money, there is a chance that you will lose a lot of money?

- A. True
- B. False
- C. Don't know
- D. Refusal

**7) Understanding financial market**

In the past 12 months have you been [personally] saving money in any of the following ways?

- A. Saving cash at home
- B. Building up a balance in bank account
- C. Buying financial investment product

**8) Do you keep books of accounts??**

- A. Yes
- B. No

**9) How much of your business capital comes from loans compared to your own money? (*debt to equity?*)**

- I mostly use my own money, and only a small part comes from loans
- I use both my own money and loans in almost equal amounts
- I mostly rely on loans to run my business

***10) Where do you get your borrowings?***

- Tontines
- SACCOs
- MFIs
- Banks
- Others

**Name**-----

**Contact**-----

**Signature**-----

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