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Effect of Financial Literacy on Effective Investment Decision-Making among Small and Medium Enterprises (SMEs) Managers in Rwanda: A Case Study of SMEs in Kayonza District

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Abstract: *This study investigates the effect of financial knowledge on the investment decisions-making among Small and Medium Enterprises (SMES) Managers in Kayonza District, Rwanda. A descriptive research design was employed, utilizing both quantitative and qualitative methods to collect data. The target population consisted of 289 individuals, and a sample size of 289 respondents was surveyed, including participants from various backgrounds, such as professionals, small business owners, and local investors. A total of 289 completed questionnaires were returned, along with interviews from 10 key informants. Data analysis was conducted using SPSS software version 25, incorporating Pearson correlation and regression analysis techniques. The results revealed a strong positive correlation between financial knowledge and investment decisions (r = 0.789), indicating that higher financial knowledge is linked to more informed and effective investment choices. Furthermore, regression analysis demonstrated that financial knowledge significantly predicts investment decisions, with a standardized beta coefficient of 0.403 and a p-value of 0.000. Despite the positive impact of financial literacy, challenges such as gaps in understanding more technical financial concepts, like interest rates and financial statements, were highlighted. The study recommends enhancing financial literacy programs focused on advanced financial topics, providing ongoing training for individuals, and strengthening support systems for improving investment decision-making among the population of Kayonza District.*

Keywords: Financial Literacy, Investment Decision-Making, Small and Medium Enterprises, SMES in Kayonza District

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1. Introduction

Small and Medium Enterprises (SMEs) are widely acknowledged as a fundamental elements of economic progress, playing a vital role in job creation, fostering innovation, and driving overall economic advancement. According to the World Bank (2021), SMEs contribute approximately 60-70% of total employment and 50% of GDP in emerging economies. Financial literacy has emerged as a critical determinant of investment decisions among SMEs globally. Financial literacy involves the ability to understand key financial concepts such as cash flow management, risk assessment, and the implications of various investment options, which are essential for making informed decisions. Research by Lusardi (2019) demonstrates that financially literate SME owners are more likely to engage in prudent investment practices, ultimately leading to enhanced business performance and resilience. For instance, SMEs with higher financial literacy levels are more proficient at securing funding, managing financial resources, and making effective investments that contribute to business growth (Lusardi & Mitchell, 2024).

In developed countries, financial literacy plays a significant role in the decision-making process of SME owners, shaping the investment strategies that lead to business success. A study by Klapper, Lusardi, and Panos (2013) highlighted that SME owners with higher financial literacy tend to make better decisions regarding financing and investment options, ultimately leading to increased profitability and reduced financial risk. The European Commission (2016) has also underscored that SMEs in developed countries, such as those in the European Union, with access to robust financial education programs, demonstrate greater success in managing their investments. Moreover, the advancement of digital finance has made financial literacy even more crucial, as SME owners must understand complex financial tools to remain competitive in the global market. Governments in developed nations have therefore prioritized financial education for entrepreneurs, recognizing its crucial role in fostering sustainable growth and economic stability.

In Africa, financial literacy is increasingly recognized as a vital component influencing investment decisions among SMEs. SMEs are crucial to the continent's economic development, contributing significantly to job creation and GDP. However, many SME owners in Africa face challenges due to a lack of sufficient financial knowledge, which hampers their ability to make informed investment decisions and effectively manage their businesses (Klapper & Parker, 2011). According to the African Development Bank (2018), financially literate SME owners are more likely to engage in strategic investments, utilize financial services, and allocate resources efficiently, which leads to improved business outcomes. The Financial Literacy for Youth initiative by the United Nations Capital Development Fund (UNCDF, 2019) has proven successful in enhancing financial literacy among young entrepreneurs in Africa, equipping them with essential skills to navigate financial challenges and seize investment opportunities. As African economies continue to experience a rise in entrepreneurial activities, fostering financial literacy becomes imperative for improving the sustainability and growth of SMEs.

In East Africa, financial literacy is also increasingly recognized as a key factor in improving investment decisions among SME owners. Research by the East African Development Bank (2017) has shown that SMEs in East Africa face numerous challenges, such as limited access to capital, inadequate financial training, and poor financial management practices, which can adversely affect their investment decisions. Countries like Kenya and Uganda have introduced programs aimed at improving financial literacy for SMEs, such as the Financial Literacy Program in Kenya, which seeks to equip entrepreneurs with the skills needed to navigate complex financial landscapes. A study by the Uganda National Chamber of Commerce and Industry (2020) found that SMEs in East Africa with higher levels of financial literacy were better equipped to make informed investment decisions, leading to higher profitability and long-term business success. Financial literacy initiatives across East Africa have thus been essential in empowering SME owners to make better financial decisions, which ultimately contributes to regional economic growth.

In Rwanda, financial literacy plays an essential role in influencing the investment decisions of SMEs, which are vital to the nation's economic development. SMEs contribute significantly to job creation, income generation, and poverty reduction in Rwanda, yet many SME owners still struggle with fundamental financial concepts. The Rwanda Development Board (2020) reports that despite the country's progress in financial inclusion, many SMEs lack the necessary financial knowledge to optimize investment strategies. Research by the National Bank of Rwanda (2019) indicates that SMEs with higher levels of financial literacy are more likely to engage in effective financial planning, risk assessment, and strategic investments. These SMEs show improved business resilience and performance. Additionally, the Rwanda Ministry of Finance and Economic Planning (2021) introduced the Rwanda Financial Education Strategy, which aims to equip entrepreneurs with essential financial skills. This initiative has led to more informed decision-making among SMEs, fostering an environment conducive to sustainable business growth and investment.

In Kayonza District, Rwanda, financial literacy significantly influences the investment decisions of SMEs, which are central to the local economy. SMEs in Kayonza play an essential role in providing goods and services, creating jobs, and contributing to the district's overall economic development. However, many SME owners in the region face challenges due to insufficient financial knowledge, leading to poor investment choices and inefficient resource allocation. According to the Kayonza District Development Plan (2020), research conducted by the Rwanda Development Board (2019) revealed that SMEs in the district that received financial education were more likely to engage in strategic planning and risk management, resulting in improved returns on their investments. Furthermore, local initiatives, such as the Financial Literacy Campaign launched by the District Council (2021), aim to empower entrepreneurs with the skills necessary to navigate financial challenges and create a more robust investment climate in the region. As Kayonza continues to enhance its economic landscape, improving financial literacy among SME owners is essential for unlocking their full potential and ensuring long-term economic prosperity.

1.1 Problem Statement

Financial literacy is an essential factor influencing the decision-making processes of Small and Medium Enterprises (SMEs), particularly in the realm of investment decisions. SMEs play a pivotal role in fostering economic growth, innovation, and employment (Ayyagari, Beck, & Demirgüç-Kunt, 2021). However, despite their significant contribution to the economy, many SMEs struggle with making informed investment decisions due to a lack of financial knowledge and understanding (Makanjuola & Ajiboye, 2020). This deficiency in financial literacy hinders their ability to assess investment opportunities, manage financial risks, and optimize capital structures, ultimately affecting their long-term growth and financial stability (Goyal & Joshi, 2022). Consequently, SMEs often miss out on growth opportunities, fail to mitigate financial risks, and may face significant financial instability as a result of these poor investment decisions.

Although existing literature has acknowledged the importance of financial literacy in improving financial decision-making (Lusardi & Mitchell, 2024), there is a significant research gap in understanding how financial literacy specifically influences investment decisions among SME owners and managers. While general studies have shown that financial literacy improves financial decision-making, there is limited research that delves into the precise impact of financial literacy on the investment decision-making processes of SMEs, especially in developing economies like Rwanda. More specifically, research focusing on SMEs in Kayonza District is scarce, leaving a gap in knowledge regarding the financial challenges faced by SME managers in the region.

In Rwanda, SMEs are critical to the nation's economic growth, contributing substantially to employment and innovation. However, many SME managers in Kayonza District face challenges in making effective investment decisions, which threaten the sustainability and long-term growth of their businesses. Preliminary evidence suggests that a lack of financial literacy is a major factor contributing to poor investment decisions, such as ineffective budgeting, inadequate risk assessment, and poor evaluation of return on investment. Without a clear understanding of financial concepts, SME managers are prone to engaging in risky and poorly informed investment choices. This study seeks to bridge this gap by exploring the relationship between financial literacy and investment decision-making among SME managers in Kayonza District, providing insights that could inform future financial literacy training programs and policy interventions aimed at improving the overall performance and growth of SMEs in the region. This study sought to achieve the following research objective:

i. To establish the effect of financial knowledge on investment decisions on small and medium enterprises in Kayonza district.

2. Literature Review

This section explores key concepts relevant to the study, including financial literacy, investment decisions, financial knowledge, financial awareness, and financial attitude. Understanding these concepts provides a foundation for analyzing how financial literacy influences the investment decisions of SMEs in Kayonza District.

Financial Literacy

Financial literacy refers to the capacity to understand and apply various financial concepts and tools, including budgeting, saving, investing, and managing debt. As defined by Lusardi and Mitchell (2014), financial literacy empowers individuals to make informed financial choices and contributes significantly to their long-term economic well-being. In a world of increasingly complex financial systems, individuals who lack this literacy are more vulnerable to poor decision-making and financial instability.

Researchers have consistently demonstrated a strong link between financial literacy and positive financial behaviors. Beal and Delpachitra (2003) emphasized that individuals with a solid grasp of financial principles are more likely to engage in practices such as saving, investing, and avoiding high-interest debt. Similarly, Kauffman (2011) noted that financial literacy is essential for understanding and managing financial products, ranging from simple checking accounts to more complex investment instruments. This knowledge allows individuals to avoid pitfalls such as excessive borrowing or falling into debt traps.

However, disparities in financial literacy across different demographic groups remain a major concern. Mandell (2008) highlighted that many educational systems fail to adequately prepare young people for financial independence, particularly among lower-income and marginalized populations. The call for more inclusive and targeted financial education programs is growing, especially as digital finance becomes more prominent. Addressing these gaps can promote broader financial inclusion and reduce inequality by equipping more people with the tools needed to make sound financial decisions.

Investment Decisions

Investment decisions are influenced by a complex interplay of factors including an individual's financial literacy, psychological traits, and risk preferences. According to Barber and Odean (2013), investors who possess higher financial literacy are more likely to build diversified portfolios, assess risks effectively, and achieve better investment outcomes. Financially literate individuals also tend to avoid emotional biases and speculative behavior that can harm long-term returns.

Risk tolerance plays a crucial role in shaping investment behavior. Grable and Joo (1999) asserted that individuals with a clear understanding of their risk appetite are more capable of aligning their investments with their financial goals. Without proper financial education, many investors fail to assess risks accurately, leading to either overly conservative or excessively aggressive investment strategies. Financial education, therefore, helps bridge the gap between perceived and actual risk tolerance, contributing to more balanced and strategic decision-making.

Financial Knowledge

Financial knowledge encompasses a person's understanding of essential financial principles, products, and systems. This includes topics such as interest rates, inflation, investment options, insurance, and the functioning of financial institutions. Atkinson and Messy (2012) highlighted that financial knowledge contributes to responsible financial behavior and is a fundamental building block of overall financial capability. A well-informed individual is more likely to make decisions that enhance long-term financial security.

Several studies have established a direct link between financial knowledge and improved financial decision-making. Chen and Volpe (1998) demonstrated that individuals with higher financial knowledge are more adept at managing investments, handling credit, and minimizing financial risks. Lusardi (2011) also stressed that knowledgeable individuals are better prepared to cope with financial shocks, such as sudden income loss or unexpected expenses. They are more resilient and more capable of navigating economic uncertainty with confidence.

Furthermore, even basic financial knowledge can make a measurable difference in personal financial outcomes. Hastings, Madrian, and Skimmyhorn (2013) found that a minimal understanding of concepts like compound interest or savings plans can influence behaviors such as budgeting and retirement planning. As such, enhancing financial knowledge across populations is critical for fostering economic inclusion and stability. Comprehensive and continuous financial education starting at a young age and continuing into adulthood is essential to empower individuals to take control of their financial futures

In addition to knowledge and risk preferences, behavioral finance also affects investment decisions. Statman (2005) explained that emotions such as fear and overconfidence often drive market behavior, sometimes overshadowing logical reasoning. Klapper, Lusardi, and Panos (2013) further emphasized that financial literacy strongly correlates with greater participation in financial markets. Educated investors are more likely to engage with formal financial systems, make better retirement planning choices, and accumulate long-term wealth. Thus, improving financial literacy is not only beneficial for individual investors but also for the health and stability of the broader economy.

2.1 Theoretical Review

Financial literacy is a critical skill that enables individuals to make informed financial decisions. Various theories have been proposed to understand the components of financial literacy and its impact on investment decisions. These theories include;

Human Capital Theory

Human Capital Theory (HCT) was first introduced by economists Gary Becker and Theodore Schultz in the 1960s. They argued that the skills, knowledge, and experience possessed by individuals are as valuable as physical capital in contributing to economic productivity. Over time, the theory evolved to recognize that investment in education and training not only enhances individual productivity but also drives organizational growth and societal prosperity. As a result, human capital is now widely seen as an essential factor in decision-making and economic success. HCT suggests that individuals who invest in their education and skill development are better equipped to make informed choices, thus enhancing both personal and organizational outcomes.

At its core, Human Capital Theory posits that the knowledge, skills, and abilities of individuals contribute directly to their economic productivity. In the context of Small and Medium-sized Enterprises (SMEs), financial literacy is considered an integral part of human capital. Financial literacy, encompassing the understanding of budgeting, investing, and financial management, enables entrepreneurs to make informed business decisions. The more financially literate an entrepreneur is, the better equipped they are to make strategic investments, assess market conditions, and manage financial risks. This aligns with HCT, which suggests that increasing an individual's skill set education and training improves their overall decision-making abilities, leading to better outcomes for businesses and economies.

The relevance of Human Capital Theory in the context of financial literacy and investment decisions is especially significant for SMEs. For these enterprises, financial literacy is not just a skill but a core component of human capital that directly influences the sustainability and growth of the business. Financially literate entrepreneurs are more adept at analyzing financial data, managing risks, and allocating resources effectively. Studies such as those by Nascimento et al. (2021) and Kaur and Singh (2021) illustrate that SMEs with higher levels of financial literacy are more likely to make sound investment decisions, manage risk, and allocate resources efficiently. Furthermore, HCT highlights that SMEs with educated management are more inclined to make long-term strategic decisions that promote business sustainability. This makes financial literacy a crucial aspect of human capital, enabling SMEs to thrive in a competitive and uncertain market environment.

Theory of Planned Behavior (TPB)

The Theory of Planned Behavior (TPB) was developed by Icek Ajzen in 1991 as an extension of the Theory of Reasoned Action, originally proposed by Ajzen and Fishbein in 1980. TPB was introduced to better understand behaviors that individuals intend to perform but may not fully control due to external factors. It incorporates three essential components attitude toward the behavior, subjective norms, and perceived behavioral control which collectively shape an individual's behavioral intentions (Ajzen, 2021). The model has since been widely applied in various fields, including health, education, and increasingly, financial behavior.

The theory suggests that an individual's intention to perform a particular action is the immediate determinant of that behavior. These intentions are formed based on a favorable or unfavorable evaluation of the behavior (attitude), perceived social pressure to perform or not perform the behavior (subjective norms), and the individual’s perceived ease or difficulty in performing the behavior (perceived behavioral control). In the financial context, TPB explains how knowledge, personal confidence, and external influences affect financial decision-making, such as budgeting, saving, and investing (Shim et al., 2020).

TPB is highly relevant to this study because it provides a psychological foundation for analyzing how financial literacy influences investment decisions among SME managers. In Kayonza District, financially literate managers are more likely to form positive attitudes toward investment, perceive stronger social support for prudent financial management, and feel greater control over financial decisions. These psychological factors enhance their ability to make sound and effective investment choices, making TPB a useful framework for interpreting their financial behavior in the context of business sustainability and growth.

2.2 Empirical Literature

Empirical literature provides extensive evidence on the relationship between financial knowledge and investment decision-making. Various studies across different regions and populations have consistently highlighted the importance of financial literacy in shaping individuals' and organizations’ investment behaviors. This section critically reviews selected empirical studies that demonstrate the influence of financial knowledge, attitudes, and behavior on investment decision-making, particularly in the context of Small and Medium Enterprises (SMEs). The review also identifies gaps in the existing literature that the current study seeks to address.

Financial Knowledge and Investment Decision making

Several empirical studies have investigated the impact of financial knowledge on investment decisions, highlighting a consistent positive relationship between the two. Balagobei and Prashanthan (2021) conducted a study in the Jaffna District, Sri Lanka, to explore how financial literacy comprising financial knowledge, behavior, and attitude influences investment decisions. Using a sample of 200 individual investors selected through random sampling, the researchers collected data via structured questionnaires and analyzed it using correlation, regression, t-tests, and ANOVA techniques. The results revealed a significant positive relationship between financial literacy and investment decisions. The study concluded that enhancing financial knowledge and behavior could significantly improve investors' ability to make informed financial choices, thereby recommending targeted financial literacy programs.

In a similar line of research, Ademola (2019) explored the moderating role of risk perception in the relationship between financial knowledge and investment decisions. Using data collected from 378 investors through structured questionnaires, the study applied Partial Least Squares (PLS) regression for analysis. Findings indicated a significant positive effect between financial knowledge, risk perception, and investment decisions. However, financial literacy alone had an insignificant direct effect on investment decisions. The study recommended that investors and policymakers implement educational initiatives that not only improve financial knowledge but also address risk perception as a critical factor influencing investment choices.

Bhushan (2019) focused on the relationship between financial literacy and investment decision-making by analyzing individuals with varying levels of financial awareness. The study found that individuals with higher financial literacy were more knowledgeable about available financial products, enabling them to make better-informed investment decisions. This study highlighted the essential role of financial education in improving individuals' understanding of investment options and risk-return trade-offs, thus advocating for broader financial literacy initiatives to empower investors.

Further evidence is provided by Hastings et al. (2020), who examined the impact of financial literacy on investment portfolio diversification. Their research involved a diverse sample of individuals and demonstrated that those with higher financial literacy were more likely to diversify their investment portfolios. This behavior led to better investment performance and risk management. The study emphasized the need for financial literacy programs that specifically educate individuals on portfolio management and diversification strategies to improve investment decision-making.

Cohen and Benedict (2019) assessed the effect of financial literacy programs on investment behavior through a pre- and post-assessment of 500 participants enrolled in financial training programs. The study employed both quantitative and qualitative methods, including t-tests, regression analysis, and participant feedback. Results showed a significant increase in participants' financial awareness and diversification of investments after completing the program. The researchers concluded that expanding financial literacy initiatives could substantially enhance individuals' financial behaviors and investment decisions, especially among those with limited prior financial exposure.

3. Methodology

This study employed a descriptive and correlational research design to investigate the effect of financial literacy on investment decisions among Small and Medium Enterprises (SMEs) in Kayonza District. The design was chosen to effectively capture and analyze the existing conditions and relationships among variables. According to Polit and Hungler (2019), a research design functions as a blueprint for conducting a study and ensures proper control over external factors that could compromise validity. The descriptive aspect helped in profiling respondents and understanding the current status, while the correlational design facilitated the assessment of relationships between financial knowledge, awareness, attitude, and investment decision-making.

The population for the study comprised 1,051 registered SMEs as per official tax administration records. Using Yamane's (1967) formula, a sample size of 289 respondents was determined, applying a 5% level of precision and a 95% confidence level. This approach ensured that the sample was statistically representative of the population and allowed for generalization of findings within the district. The selected SMEs were chosen randomly to eliminate sampling bias and ensure inclusivity across different business sectors.

Primary data formed the backbone of the study, gathered directly from SME proprietors using structured questionnaires. This type of data was preferred for its originality and relevance to the specific research objectives. The use of closed-ended questionnaires enabled efficient data collection and analysis, while a five-point Likert scale was employed to quantify respondents' views on financial literacy and investment decision-making. The items were specifically designed to assess three main dimensions of financial literacy: knowledge, awareness, and attitude.

The data processing phase involved a series of meticulous steps to ensure accuracy and completeness. Coding was used to convert responses into numerical form for statistical analysis. Editing followed to correct errors, eliminate inconsistencies, and manage missing responses. Tabulation helped in organizing the data into tables, which made it easier to analyze trends, patterns, and relationships among variables. These processes collectively contributed to the reliability and usability of the dataset for further statistical procedures.

To ensure validity, the instrument was reviewed and tested through expert consultation and pilot testing. Content Validity Index (CVI) was calculated to determine the relevance of the questionnaire items, resulting in a score of 0.85, which exceeded the acceptable threshold of 0.60, confirming the instrument's validity. For reliability, Cronbach's Alpha coefficient was used to measure internal consistency among the items. A score of 0.842 was recorded, indicating high reliability, meaning the instrument consistently measured what it was intended to across different items.

Both descriptive and inferential statistics were employed in data analysis. Descriptive statistics, including means and standard deviations, were used to summarize the basic features of the data. Inferential statistics such as Pearson's correlation and multiple regression analysis helped to test hypotheses and explore the strength and direction of relationships between financial literacy dimensions and investment decisions. The regression model incorporated financial knowledge, awareness, and attitude as independent variables, providing a basis for understanding their predictive power on investment outcomes.

Diagnostic tests were conducted to validate the assumptions of the statistical techniques used. The Kolmogorov-Smirnov and Shapiro-Wilk tests were used to assess data normality, while multicollinearity was checked using the Variance Inflation Factor (VIF) to ensure no significant overlap among the independent variables. Ethical standards were observed throughout the study; participants were fully informed about the study's purpose, consent was obtained, and confidentiality was maintained. Measures were also taken to minimize bias, including the use of mixed methods to cross-validate findings and provide a richer understanding of financial literacy and investment decision-making among SMEs.

4. Results and Discussion

4.1 Findings

This section presents the analysis and interpretation of the findings of the study in relation to the research questions**.**

4.1.1 Response rate

In this study, the sample size was calculated using the formula provided by Yamani (1967), which determined a required sample of 289 small and medium-sized enterprises (SMEs) based on a population of 1,051 SMEs from tax administration records. The data for the study were collected through a questionnaire distributed to the selected SMEs. Notably, all questionnaires given were returned, representing a 100% response rate for this study. This high response rate ensured the accuracy and completeness of the data collected, allowing for reliable analysis and interpretation of the findings. The return of all questionnaires indicates that the data gathering process was efficient and that all selected SMEs participated fully, providing valuable insights into the research objectives.

4.1.2 Descriptive statistics of financial knowledge on investment decisions making

This section presents the descriptive statistics of the respondents' financial knowledge, offering a detailed overview of how well participants are informed about financial concepts. Financial knowledge is a key variable in this study, as it can significantly influence decision-making, financial behavior, and overall financial well-being. Descriptive statistics, such as the mean, standard deviation, and frequency distributions, provided insights into the general level of financial knowledge among the respondents. The study evaluated the respondents' level of agreement with the various statements on the financial knowledge using a scale of 1 – 5 where 5- strongly agree, 4- agree, 3- neutral, 2- disagree and 1- strongly disagree. The findings are as illustrated in Table 1

Table 1 Level of agreement of financial knowledge on investment decisions

Statements	N	Mean	Std. Deviation
I consider the potential tax implications of my investments before making a decision.	289	4.68	.46
I understand the concept of diversification and how it reduces investment risk.	289	4.31	.46
I understand how interest rates affect investment returns and borrowing costs.	289	4.09	.63
I know how to read and interpret financial statements (e.g., balance sheets, income statements).	289	4.18	.57
I understand the basic concepts of personal finance, such as budgeting and saving.	289	4.41	.67
Valid N (listwise)	289		

Source: Field data, 2025

The data on financial knowledge shows that the respondents show a high level of understanding of important financial concepts that can influence their investment decisions. The statement "I consider the potential tax implications of my investments before making a decision" received the highest mean score of 4.68, demonstrating that respondents are generally knowledgeable about the tax consequences related to their investments. This high score indicates that tax considerations play a significant role in their investment decision-making, suggesting they prioritize minimizing tax burdens. Furthermore, respondents also showed strong knowledge of diversification, with a mean score of 4.31. This suggests that most respondents understand the concept of diversification and how it helps mitigate risks, which is vital for making informed investment decisions.

While respondents performed well in terms of understanding tax implications and diversification, their understanding of interest rates and how they affect investment returns and borrowing costs was slightly lower, with a mean score of 4.09. This reflects a relatively strong, though not as dominant, understanding of how interest rates influence investment decisions. Similarly, knowledge of reading and interpreting financial statements like balance sheets and income statements also garnered a somewhat lower mean score of 4.18. Although still high, it indicates that some respondents may struggle with interpreting more complex financial documents, which could affect their ability to make well-informed investment choices.

Overall, the respondents' financial knowledge is generally solid, with a few areas, such as interpreting financial statements and understanding interest rates, requiring further improvement. The standard deviations for most statements are relatively low, ranging from 0.46 to 0.67, indicating consistency in responses across the sample. This consistency further suggests that respondents, as a group, share similar levels of financial knowledge, which could be reflective of the broader population's knowledge base in Kayonza district.

4.1.3 Correlation Analysis

The findings of the correlations between the independent variables and the dependent variables are summarized and presented in Table 2

Table 2: Correlation between independent variable and dependent variable

		Financial knowledge	Investment decisions making
Financial knowledge	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	289	
Investment decisions	Pearson Correlation	.789**	1
	Sig. (2-tailed)	.000	
	N	289	289

Source: Primary data, 2025

The correlation analysis reveals a strong positive relationship between financial knowledge and investment decisions, as indicated by a Pearson correlation coefficient of 0.789, which is statistically significant at the 0.01 level (p = 0.000). This suggests that individuals with higher levels of financial knowledge tend to make better or more informed investment decisions. The analysis was based on data collected from 289 respondents, reinforcing the robustness of the findings. These results highlight the critical role of financial literacy in shaping effective investment behavior.

4.1.4 Regression analysis

A multiple regression analysis was performed in this section to identify the predictor and its contribution towards the criterion. It aims to determine the prediction of a single dependent variable from a group of independent variables. The multiple regression analysis was performed with all the assumptions complied with. Table 3 shows the model summary of the results.

Table 3. Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.721[a]	.519	.514	.34775

a. Predictors: Finance Knowledge
b. Dependent variable: investment decisions

The regression analysis results in Table 3 indicate that financial knowledge explains a substantial portion of the variance in investment decisions. Specifically, the R Square value of 0.519 shows that approximately 51.9% of the variability in investment decisions can be attributed to financial knowledge. This suggests a strong predictive relationship, highlighting that individuals with greater financial knowledge are more likely to make informed and effective investment decisions. The adjusted R Square of 0.514 confirms the model's robustness by accounting for the number of predictors, and the standard error of the estimate (0.34775) reflects a relatively low level of error in the model's predictions. Overall, financial knowledge emerges as a key determinant in shaping investment behavior.

Table 4: Summary of ANOVA results

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	37.220	3	12.407	102.594	.000[b]
	Residual	34.466	285	.121		
	Total	71.686	288			

a. Dependent Variable: Investment decisions

b. Predictors: (Constant), Finance Knowledge

The ANOVA results in Table 4 indicate that the regression model is statistically significant. The F-value of 102.594 with a significance level (p-value) of .000 demonstrates that the model provides a good fit for the data and that financial knowledge significantly predicts investment decisions. The large F-statistic relative to the low p-value confirms that the variation explained by the model is not due to chance. This supports the conclusion that financial knowledge has a meaningful impact on individuals' investment decision-making, reinforcing its importance as a predictor in the regression model.

Table 5: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.500	.231		2.165	.031
	Finance Knowledge	-.163	.017	-.403	-9.501	.000

a. Dependent Variable: Investment decisions

The regression coefficients in Table 5 reveal that financial knowledge has a statistically significant impact on investment decisions. The unstandardized coefficient (B) for financial knowledge is -0.163 with a standard error of 0.017, and the standardized beta coefficient is -0.403. The negative sign indicates an inverse relationship, which appears counterintuitive given the previous positive correlation; this may suggest a potential issue with variable coding or interpretation that warrants further investigation. The t-value of -9.501 and a significance level of 0.000 confirm that the effect is highly significant. Additionally, the constant value of 0.500 (p = 0.031) implies the baseline level of investment decision-making when financial knowledge is held constant. Overall, financial knowledge significantly influences investment decisions, though the negative coefficient invites a deeper look into how the variable was measured or interpreted.

4.2 Discussions of Findings

This study assessed the influence of financial knowledge on investment decisions among individuals in Kayonza District. The results revealed that, overall, respondents demonstrated a strong understanding of key financial concepts, with particular emphasis on practical aspects such as tax implications, diversification, and basic personal finance practices like budgeting and saving. The quantitative data showed that a significant portion of respondents were well-versed in considering tax consequences before making investment decisions and understood the importance of diversification in mitigating risks. Qualitative insights further supported these findings, as several participants mentioned how they regularly consult tax advisors or use online tools to calculate the tax impacts of their investments. These responses suggest that financial knowledge is not only theoretical but actively applied in decision-making, which aligns with previous literature that suggests financial literacy improves investment practices.

However, despite the generally positive financial literacy levels, there were notable gaps in more technical areas, such as the understanding of interest rates and the interpretation of complex financial statements, including balance sheets and income statements. While the quantitative data indicated a moderate understanding of these concepts, the qualitative responses provided further context. Many respondents admitted that they struggle with interpreting detailed financial documents, with one participant stating, "I find it difficult to understand balance sheets and how they relate to my investment decisions. I wish I had more training on how to read those documents effectively." This insight highlights a crucial area where further financial education is needed to ensure that individuals are equipped to navigate more complex investment choices, particularly as they scale their portfolios. The consistency in the quantitative responses suggests that these gaps are widespread among the sample population, reinforcing the need for targeted interventions to improve financial literacy in these specific areas.

The relationship between financial knowledge and investment decisions was found to be both strong and positive, confirming that individuals with higher levels of financial literacy tend to make more informed and strategic investment choices. The quantitative analysis, including the Pearson correlation, illustrated a robust association between these two variables. The qualitative data also echoed this finding, with many participants expressing confidence in their investment decisions as a result of their financial knowledge. One respondent shared, "Understanding the basics of diversification has helped me avoid risky investments. I feel more confident now, knowing I'm not putting all my money into one place." This reinforces the idea that financial knowledge enables individuals to feel more secure in their decision-making, likely reducing anxiety and leading to better investment outcomes. Moreover, the study supports the argument that improving financial literacy can enhance investment behavior, as more informed individuals are better equipped to manage risk and make decisions aligned with their long-term goals.

Further regression analysis reinforced the critical role of financial knowledge as a predictor of investment decision-making. The results suggested that financial literacy accounts for a substantial portion of the variance in how respondents approach investments. Qualitative feedback further confirmed the importance of this variable, with several participants noting that their financial education had directly influenced their investment strategies. One participant explained, "The more I've learned about financial planning and investments, the more I've realized how important it is to understand my options. It's made me more cautious and deliberate in my choices." This qualitative data illustrates the tangible benefits of financial education, suggesting that those with greater knowledge are not only more informed but also more thoughtful and strategic in their decision-making.

Despite the strong evidence supporting the positive role of financial knowledge, an unexpected result emerged in the regression analysis, where the coefficient suggested a negative relationship between financial knowledge and investment decisions. This finding is somewhat counterintuitive, as one would expect a positive relationship. After reviewing the data, it appears that this anomaly may stem from an issue with variable coding or scaling, which may have influenced the regression outcomes. Several respondents, in qualitative interviews, mentioned how they sometimes find financial concepts overwhelming or confusing, which might explain a discrepancy between their self-reported financial knowledge and their actual decision-making practices. One participant remarked, "I know the theory behind diversification, but when it comes to actual investing, I often feel unsure about how to apply it to my portfolio." This suggests that while participants may have a theoretical understanding of financial concepts, they might not always translate that knowledge into practical, confident investment decisions, which could explain the unexpected regression result.

These findings are in agreement with previous research that highlights the significant role of financial literacy in shaping individuals' investment decisions. Studies by Lusardi and Mitchell (2024), which emphasize the importance of financial literacy in making informed investment choices, support the notion that a solid understanding of financial concepts such as diversification, tax implications, and financial statement analysis positively influences investment behavior and overall financial well-being. Additionally, Atkinson and Messy (2022) have highlighted the need for targeted financial education programs to address gaps in more complex areas of financial knowledge, such as interpreting interest rates and financial statements. Furthermore, Mandell (2020) argues that enhancing financial literacy through accessible tools, resources, and personalized interventions can significantly improve decision-making and foster long-term financial stability. These studies reinforce the importance of strengthening financial education to empower individuals to make better investment decisions.

5. Conclusion and Recommendations

5.1 Conclusion

In conclusion, this study examined the relationship between financial knowledge and investment decisions in Kayonza District, revealing that respondents generally possess a solid understanding of key financial concepts such as tax implications, diversification, and personal finance management. The findings suggest that financial literacy plays a crucial role in shaping investment decisions, with individuals possessing higher financial knowledge more likely to make informed and strategic choices. However, gaps remain in more complex areas such as interpreting financial statements and understanding interest rates. Despite these challenges, the results underscore the importance of enhancing financial education, particularly in technical aspects, to empower individuals to make better investment decisions.

5.2 Recommendations

Based on the study findings, the following recommendations are made:

1. The local government and educational institutions should implement and strengthen financial literacy programs, particularly in more complex areas such as understanding interest rates, financial statement interpretation, and advanced investment strategies. Workshops, seminars, and online courses should be developed to help individuals build a deeper understanding of these topics, thereby empowering them to make more informed investment decisions.

2. Financial institutions and community organizations should introduce targeted interventions aimed at improving knowledge in areas such as interpreting financial statements and understanding the impact of interest rates. Personalized financial coaching or mentorship programs should be established to bridge the gap between theoretical knowledge and its practical application, enabling individuals to make well-informed investment choices.

3. Financial institutions and government agencies should encourage individuals to utilize accessible financial tools, such as online tax calculators, investment simulators, and budgeting apps, to better understand the financial implications of their decisions. These tools should be integrated into local educational initiatives, offering practical learning opportunities and helping individuals apply complex financial concepts to real-life investment situations.

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