Journal of Finance and Accounting



Effect of Financial Literacy on Investment Decisions of Small Medium Enterprises in Rwanda: A Case of Coffee Shops in the City of Kigali

Francine Uwineza

ISSN: 2616-4965

Email: info@stratfordjournals.org ISSN: 2616-4965



Effect of Financial Literacy on Investment Decisions of Small Medium Enterprises in Rwanda: A Case of Coffee Shops in the City of Kigali

Francine Uwineza Master of Business Administration in Accounting and Finance, University of Kigali, Rwanda

How to cite this article: 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. Vol 8(5) pp. 40-57 https://doi.org/10.53819/81018102t2391

Abstract

Financial literacy encompasses the possession of awareness, knowledge, attitudes, and skills essential for effective money management. It plays a pivotal role in fostering financial development and driving economic growth within a country. With these considerations in mind, it becomes imperative to evaluate the financial knowledge of the younger generation, particularly undergraduate students, who are envisioned as the future investors and catalysts for economic transformation. This research aimed to assess the impact of financial literacy on investment decisions among Small and Medium Enterprises. The study population comprises 120 coffee shop managers and owners, was selected through random sampling. The first objective was to assess the effect of financial awareness on investment decisions among coffee shops in the City of Kigali. The Second objective was to assess the effect of financial knowledge on Investment Decisions among Coffee shops in the City of Kigali. The third objective was to assess the effect of financial skills on investment decisions among Coffee shops in the City of Kigali. The fourth objective was to assess the effect of financial attitude on investment decisions among Coffee shops in the City of Kigali. The study adopted Inferential statistics Analysis design in order to interpret data. Therefore, both quantitative (questionnaire) and qualitative (interview) research techniques were used by the researcher in order to collect data (information) related to the objectives of the study and for data analysis. The findings showed that the coefficient of correlation (R-value)=0.678. This indicates that there is a moderate and positive relationship between the financial literacy and investment decisions among coffee owners and/or managers in the city of Kigali. Findings revealed that the financial awareness had a positive coefficient of the estimate which was significant (β = 0.212, p<0.05) at 5% level of significance. Furthermore, financial knowledge had a positive coefficient of the estimate which was significant (β =0.243, p<0.05). Also, skills had a positive coefficient of the estimate which was significant (β = 0.232, p<0.05). Moreover, financial attitude had a positive coefficient of the estimate which was significant (β =0.313, p<0.05). Coffee shop owners should invest in ongoing financial education and training to enhance their financial knowledge and skills. This can include courses, workshops, and access to financial experts to ensure they stay updated with industry trends. Coffee shop owners should seek guidance on ROI calculation methods and tools to make more informed growth decisions. Improving the ability to assess the return on investment (ROI) for various business expansion strategies is crucial.

Key words: Financial Literacy, Small and Medium Enterprise, Financial Awareness, Financial Knowledge, Financial Skills, Financial Attitude, and Investment Decisions.

Volume 8||Issue 5||Page 40-57 ||April||2024|

Email: info@stratfordjournals.org ISSN: 2616-4965



1. Introduction

In the current area of globalization and rapid technological advancements, the Small and Medium Enterprises (SMEs) sector plays a pivotal role in the economic landscape of countries worldwide (Faizah, 2019). Rwanda, like many other nations, recognizes the significance of SMEs in fostering economic growth, generating employment opportunities, and ensuring equitable income distribution (Wulansari & Anwar, 2022). Consequently, the government of Rwanda places a strong emphasis on the development and expansion of SMEs as a cornerstone of its sustainable economic development objectives.

Financial literacy encompasses an individual's comprehension and familiarity with financial concepts, spanning investment strategies, financial management, financial planning, and the ability to make sound decisions concerning money and assets. For SMEs, a high level of financial literacy equips them with the capacity to grasp investment concepts, comprehend the associated risks, and evaluate the potential returns tied to various investment instruments (García, 2020). By doing so, coffee shop owners can enhance their investment decision-making processes and potentially yield more lucrative outcomes.

Financial literacy also encompasses a multifaceted domain that necessitates awareness, profound grasp of knowledge, skill sets, attitudes, and practical experience. This comprehension extends to fundamental objectives such as ensuring a firm's viability, maximizing profitability, optimizing sales figures, securing a specific market share, mitigating staff turnovers, mitigating internal conflicts, and amassing wealth (Jacobs, 2015). In the realm of business decision-making, rationality is pivotal, predicated upon the availability of pertinent information. Thus, it becomes indispensable for both business managers and individuals to possess a reasonable degree of familiarity with the accessible information to facilitate sound judgments and choices. Financial literacy, as defined by Basu (2015), denotes the capacity to comprehend and apply financial principles essential for making well-informed decisions that reverberate through financial products, ultimately influencing an individual's financial well-being. It encapsulates the ability to exercise discernment and take effective action in matters pertaining to finance (Worthington, 2015).

Financial awareness is an individual's awareness and consciousness of financial matters. It encompasses an understanding of the importance of financial practices such as budgeting, saving, and investing (Lusardi & Mitchell, 2011). This awareness varies across countries, often influenced by cultural and educational factors. For instance, countries like Japan and Germany have strong traditions of financial awareness, which are ingrained in their educational systems and cultural practices that encourage savings and responsible financial behavior (Bernheim, Garrett, & Maki, 2001). In contrast, emerging economies may exhibit lower levels of financial awareness due to limited access to financial education (Klapper, Lusardi, & Panos, 2015).

Financial knowledge, on the other hand, encompasses an individual's understanding of financial concepts and principles. This includes knowledge of interest rates, inflation, investment strategies, and the workings of financial markets (Lusardi & Tufano, 2015). In countries with advanced financial education systems, such as Australia and the United States, there tends to be a higher level of financial knowledge among the population (Hastings & Mitchell, 2011). However, even in these countries, disparities in financial knowledge can exist based on factors like socioeconomic status and educational attainment (Hastings & Tejeda-Ashton, 2018).

Financial skills refer to an individual's ability to apply financial knowledge effectively in practical situations. These skills include budget management, investment decision-making, and the avoidance of financial pitfalls (Collins & O'Rourke, 2015). Countries like Switzerland and

Volume 8||Issue 5||Page 40-57 ||April||2024|

Email: info@stratfordjournals.org ISSN: 2616-4965



Singapore are renowned for their strong financial skills, largely due to their robust financial services sectors and a cultural emphasis on prudent financial management (Demirgüç-Kunt & Klapper, 2015). Conversely, in some developing countries, limited access to financial services can hinder the development of financial skills among individuals (Beck et al., 2017).

Financial attitude encompasses an individual's beliefs, values, and attitudes regarding money and financial decision-making (Furnham, 2015). Cultural and societal factors play a significant role in shaping financial attitudes. For example, in countries like Sweden and Norway, there is a strong societal emphasis on financial equality and responsible consumption, contributing to positive financial attitudes (Norton et al., 2015). In contrast, countries with high levels of consumerism may exhibit attitudes that prioritize spending over savings and investment (Olsen & Tudvad, 2016).

Furthermore, in the midst of global challenges and intensifying competition, particularly within the coffee shop industry (Ayodya, 2020; Widyastyti, 2023), it is imperative for young and dynamic coffee shop owners to possess the requisite knowledge and skills for prudent financial management. Financial literacy emerges as a critical determinant in aiding coffee shop owners in making astute and sustainable investment decisions (Nirwana, 2023; Saputra et al., 2023). Numerous studies underscore the critical role of financial literacy in the success and sustainability of Small and Medium Enterprises (SMEs). Bosma and Harding (2016) contend that a significant number of SMEs meet their demise due to a dearth of financial literacy and inadequate business acumen. This deficiency in financial literacy is identified as a significant hindrance to entrepreneurial endeavors (Drexler et al., 2014). It impairs entrepreneurs' ability to make informed decisions concerning the intricate financial landscape they confront. This, in turn, has repercussions for the financial knowledge and stability of their enterprises. The ramifications extend to stifling innovation and competitiveness, as well as impeding access to diverse financing sources, potentially culminating in SME failures (Kotzè & Smit, 2018).

Financial literacy bears substantial implications for financial behavior. As highlighted by previous research, individuals with limited financial literacy often grapple with debt-related issues (Lusardi & Peter, 2019). Moreover, they are less inclined to engage in stock market participation (Rooij et al., 2017), make informed choices regarding mutual funds with lower fees, accumulate and manage wealth effectively, and plan for retirement (Lusardi & Mitchell, 2016). The significance of bolstering financial literacy has gained increasing attention, given its potential to enhance financial decision-making, thus facilitating improved life event planning and management, such as education, housing acquisition, and retirement (Mahdzan & Tabiani, 2015). As the concern regarding the levels of financial literacy in society continues to mount, addressing this issue becomes increasingly pivotal for individual financial well-being and the overall economic landscape (Fox et al., 2015).

The central aim of this research is to investigate the impact of financial literacy on investment decisions within the SME sector in Rwanda. By delving into the factors that underpin investment choices, this study aspires to furnish valuable insights to the SME sector, governmental authorities, and other stakeholders. These insights are anticipated to facilitate the formulation of targeted financial literacy programs and educational initiatives, thereby nurturing the growth and sustainability of SMEs in Rwanda.

Problem statement

Financial literacy holds a pivotal role in the decision-making procedures of small and medium-sized enterprises (SMEs), especially regarding their investment choices. SMEs operate in a fiercely competitive market, where the effectiveness of investment choices significantly impacts profitability, sustainability, and overall success. However, SMEs often face challenges https://doi.org/10.53819/81018102t2391

Volume 8||Issue 5||Page 40-57 ||April||2024|

Email: info@stratfordjournals.org ISSN: 2616-4965



in financial management due to resource constraints and limited access to financial information, potentially leading to suboptimal investment decisions. Research by Bhushan (2014) highlights the link between financial literacy and informed investment decisions.

In the context of the coffee shop industry in Kigali, Rwanda, a critical challenge lies in the limited financial literacy levels among coffee shop owners and employees. Many individuals within this sector lack a comprehensive understanding of financial concepts, effective financial management skills, and the ability to make informed financial decisions. This deficiency significantly hampers their capacity to navigate the complexities of financial planning, budgeting, and investment evaluation.

The consequences of inadequate financial literacy among coffee shop stakeholders are multifold and directly impact investment decisions and the growth of Small and Medium Enterprises (SMEs) in the industry. Firstly, it results in suboptimal investment choices, leading to inefficient resource allocation and missed growth opportunities. Secondly, it exposes coffee shops to financial risks, making them vulnerable to instability and potential closure. Thirdly, it constrains the growth potential of SMEs, limiting their ability to expand, create jobs, and contribute to the local economy.

Furthermore, limited financial literacy hinders coffee shops' access to financing, hindering their ability to invest in business development projects and remain competitive in a dynamic market. In light of these issues and potential consequences, addressing the financial literacy gap among coffee shop owners and employees in Kigali is imperative. This research seeks to comprehensively explore the extent of the financial literacy gap, its profound impact on investment decisions, and propose strategies to enhance financial literacy within the coffee shop industry in Rwanda.

Research objectives

The general objective of this study is to establish the effect of financial literacy on investment decisions in SMEs in Rwanda. Specifically, the study aimed to:

- To assess the effect of financial awareness on investment decisions among Coffee shops in the City of Kigali
- To establish the effect of financial knowledge on investment decisions among Coffee shops in the City of Kigali
- To analyze the effect of financial skills on investment decisions among Coffee shops in the City of Kigali
- To examine the effect of financial attitude on investment decisions among Coffee shops in the City of Kigali.

Research Hypotheses

H01: Financial awareness has no significant influence on investment decisions.

H02: Financial knowledge has no significant influence on investment decisions.

H03: Financial skills have no significant influence on investment decisions.

H04: Financial attitude has no significant influence on investment decisions.

2. Literature Review

Financial Awareness and Investment Decisions

Bhattacharjee and Singh (2017) assessed the impact of financial literacy on investment behavior in Himachal Pradesh, India. The study employed a robust methodology involving 516 respondents from various job sectors in Himachal Pradesh, India. They used a combination of multi-stage and purposive sampling techniques to collect data. The study assessed financial literacy across dimensions of financial attitude, behavior, skills, knowledge, and awareness using a 5-Likert scale. The findings highlighted a clear link between financial awareness and investment decisions, with individuals exhibiting higher financial awareness levels more likely

Volume 8||Issue 5||Page 40-57 ||April||2024|

Email: info@stratfordjournals.org ISSN: 2616-4965



to make informed investment choices. This study underscores the significance of financial awareness in shaping investment behavior and recommends the promotion of financial education programs to enhance financial literacy.

Bhushan (2019) examined the crucial relationship between financial literacy and investment decisions. The methodology involved analyzing data from individuals with varying levels of financial literacy, with a focus on the impact of financial literacy on financial product awareness and investment choices. The findings revealed that individuals with high financial literacy levels exhibited greater financial awareness of various financial products, leading to more informed investment decisions. This study highlights the pivotal role of financial literacy in understanding investment-related concepts and recommends the promotion of financial literacy initiatives to improve investment decision-making.

Lusardi (2015) examined the effectiveness of financial education programs in influencing savings behavior and, indirectly, investment choices. The study reviewed various financial education initiatives and their impact on savings and investment.

The findings yielded mixed evidence regarding the effectiveness of financial education programs in shaping savings and investment behavior. This research raises important questions about the overall effectiveness of financial education programs and recommends further research to develop more effective strategies in this regard.

Atkinson and Messy (2016) the link between financial literacy and investment decisions. They analyzed data from 290 investors and investigated the influence of work experience in banking, educational qualifications, and finance-related training on investment choices. The findings showed that financial literacy, when enhanced by qualifications and training, correlated with greater ease in making investment decisions. Individuals with banking experience and higher educational degrees displayed a higher confidence level in making investment choices. This study emphasizes the importance of qualifications and training in finance-related matters and recommends tailoring financial education programs to specific qualifications and experiences.

Hastings *et al.* (2020) examined the influence of financial Literacy and Investment Portfolio Diversification. Their methodology involved analyzing data from a diverse sample of individuals to explore the relationship between financial literacy and investment portfolio diversification. The findings indicated that individuals with higher financial literacy scores were more likely to diversify their investment portfolios and make informed investment choices, ultimately leading to improved investment outcomes. This study underscores the positive influence of financial literacy on investment portfolio diversification and recommends the promotion of financial literacy programs emphasizing portfolio diversification strategies.

Van Rooij *et al.* (2016) explored the influence of financial literacy on risk perception and investment choices. The target population for this research comprised a diverse group of individuals with varying levels of financial literacy. The research employed a survey-based approach to collect data from a large sample of individuals, with a sample size of 1,500 respondents. The data collection instrument included a structured questionnaire that assessed financial literacy, risk perception, and investment behavior. Financial literacy was measured using a set of questions designed to evaluate participants' understanding of financial concepts. Data analysis in this study involved both descriptive and inferential statistical techniques. Descriptive statistics were used to summarize the characteristics of the study participants, while inferential statistics, such as regression analysis, were utilized to examine the relationship between financial literacy, risk perception, and investment decisions. The findings revealed that individuals with higher financial literacy displayed a more accurate perception of investment risks, leading to more cautious and informed investment decisions. As a

Volume 8||Issue 5||Page 40-57 ||April||2024|

Email: info@stratfordjournals.org ISSN: 2616-4965



recommendation, based on the study's findings, it is suggested to promote financial literacy programs that enhance risk perception skills, particularly targeting individuals with lower levels of financial literacy.

Lynch and Netemeyer (2016) investigated the connection between financial knowledge and investment success, specifically focusing on investment returns and the occurrence of financial distress. The study population included a broad spectrum of investors. The research involved a substantial sample size of 2,000 participants, who were tracked over several years. Data collection instruments included surveys and financial assessments to gauge participants' financial knowledge and investment outcomes. Financial knowledge was assessed through a series of questions related to financial concepts and investment strategies. Data analysis in this study was comprehensive, encompassing both descriptive statistics to summarize participant characteristics and longitudinal data analysis techniques. The longitudinal analysis allowed the researchers to examine how changes in financial knowledge over time influenced investment outcomes. The study findings demonstrated a strong association between a better understanding of financial concepts and investment success, characterized by higher returns and lower instances of financial distress. The recommendation drawn from this research is to advocate for broader financial education initiatives that encompass diverse financial concepts and investment strategies, ultimately contributing to improved investment outcomes.

Cohen and Benedict (2019) examined the effect of financial literacy programs on investment behavior. The target population consisted of individuals interested in improving their financial knowledge and investment skills. The study employed a participant sample size of 500 individuals who voluntarily enrolled in financial literacy programs. Data collection instruments included pre- and post-program surveys to assess participants' financial awareness and investment behavior before and after program participation. These surveys included questions related to financial knowledge, investment choices, and attitudes towards investments. Data analysis in this research involved both quantitative and qualitative methods. Quantitatively, statistical techniques such as t-tests and regression analysis were employed to compare preand post-program data and evaluate the impact of the financial literacy programs on participants' financial awareness and investment decisions. Qualitatively, participant feedback and testimonials were collected to gain insights into the qualitative aspects of the program's effectiveness. The study's findings indicated that participation in financial literacy programs significantly improved participants' financial awareness, leading to more diversified and informed investment decisions. Consequently, the recommendation stemming from this research is to promote and expand financial literacy programs to reach a wider audience, facilitating improved investment decision-making.

Financial Knowledge and Investment Decisions

Eniola and Entebang (2016) concluded that individuals can achieve maximum utility from the effective application of financial knowledge, enabling them to meet their financial obligations through wise resource planning and utilization. Greenspan further argues that financial knowledge enhances the ability to create budgets, save for the future, and make crucial investment decisions.

Robb and Sharpe (2015) conducted an Internet-based survey, sampling a significant number of undergraduate and graduate students, to investigate the role of financial knowledge in students' credit card behavior. Their study revealed that financial knowledge played a major role in influencing credit card decisions, although not entirely as expected. Additionally, they found that there was no significant difference in the level of financial knowledge among students with and without credit card balances. Surprisingly, students with high levels of financial knowledge tended to maintain higher credit card balances without investing, highlighting the complex relationship between financial knowledge and investment decisions.

Email: info@stratfordjournals.org ISSN: 2616-4965



Van Rooij *et al.* (2016) aimed to determine whether individuals with financial knowledge were more likely to invest in the stock market based on Dutch household surveys. They categorized financial knowledge into two dimensions: basic knowledge, including understanding concepts like inflation's impact, discounting, real versus nominal values, and interest rate calculations, and advanced financial knowledge, related to financial instruments differentiation (stocks and bonds), portfolio risk diversification, and the relationship between stock prices and interest rates. Their findings indicated that while basic knowledge outperformed advanced understanding, both were far from perfect. Consequently, they concluded that increasing financial knowledge is crucial for making informed financing decisions, particularly in determining what to save and invest.

Potrich *et al.* (2016) investigated the significance of financial literacy among consumers in the United States. Financial literacy was categorized into basic literacy, comprising knowledge of interest rates, the impact of inflation, and risk diversification, and advanced literacy, encompassing understanding of asset pricing, risk-return relationships, and the workings of various financial instruments. Lusardi (2015) argued that financial knowledge beyond elementary concepts is essential for making competent decisions regarding saving and investment.

Financial Skills and Investment Decisions

Kumari (2020) indicated that the relationship between financial skills and investment decision-making is crucial, as individuals with strong financial skills are generally better equipped to make informed and effective investment decisions. Financial skills encompass a range of knowledge and abilities related to managing money, understanding financial markets, analyzing investment opportunities, and evaluating risk. Financial Literacy: Strong financial skills, including literacy in areas such as budgeting, saving, and understanding financial concepts, provide a foundation for making informed investment decisions. Financially literate individuals are better able to understand the risks and potential returns associated with various investment options.

Barber and Odean (2016) elucidated that investment decision-making requires the ability to assess and manage risk. Financially skilled individuals can evaluate investment opportunities, analyze potential risks, and make more informed decisions based on their understanding of risk-return trade-offs. Remund (2017) indicated that financial skills enable individuals to conduct a thorough analysis of investment opportunities. This includes assessing factors such as financial statements, market trends, valuation metrics, and other relevant information. Analytical skills help investors make more informed investment decisions.(Bodie, Kane, & Marcus, 2016), Financially skilled individuals understand the importance of diversification and asset allocation in investment portfolios. They can effectively allocate their investments across different asset classes, such as stocks, bonds, real estate, and commodities, to manage risk and optimize returns.

Financial Attitude and Investment Decision

Mahmoud *et al.* (2021) investigated influence of financial attitudes among individuals working in the service industry whose origin is in the United Arab Emirates. A convenient sample of four hundred and twelve participants was surveyed as the researcher lacked a formal sampling frame. Responses from a five-point Liker scale of importance adopted by Chen and (Ibrahim & Alqaydi, 2015) measured personal financial attitude. The results of the study showed an improvement in personal financial attitude tended to reduce dependence on the use of credit cards. This study's use of convenience sampling technique, however, increased the chance of non-representation bias thus hindering the application of these results in general cases. Together this study was faced with several limitations for example the specification and forms of the linear regression model used. The usage of the dummy independent variable contravened

Email: info@stratfordjournals.org ISSN: 2616-4965



the linearity assumption. According to Gutter and Copur (2016), this could have been resolved using a logistic regression model. In Singapore, the Money Sense Financial Education Steering Committee of 2005 conducted a first-time survey on financial literacy to find out whether the Singapore population had information on common financial products and services and how effective they are in managing finances for investment. The result of the study showed Singaporeans have healthy financial attitudes, as a measure of financial literacy, toward money matters, financial planning, and more importantly management in investment decisions. Moreover, this committee found that Singaporeans saved some of their earnings and monitored their spending.

Theoretical review

The theoretical review section of this study delves into key theoretical frameworks that underpin the research on financial literacy and its impact on investment decisions, particularly in the context of coffee shops within the SME sector. These theories provide a solid foundation for understanding the intricate relationship between financial literacy and investment choices.

Financial Literacy Theory

According to Engelbrecht (2018), financial literacy theory refers to the body of knowledge and understanding that individuals possess about financial concepts, tools, and skills necessary to make informed decisions regarding their personal finances. It encompasses various aspects such as budgeting, saving, investing, debt management, and understanding financial products and services. Financial literacy theory emphasizes the importance of educating individuals to improve their financial decision-making abilities and overall financial well-being. Knowledge and Understanding of Financial Literacy Theory emphasizes the acquisition of knowledge and understanding of financial principles, concepts, and practices. This includes basic financial literacy topics such as budgeting, banking, credit, taxes, investing, and retirement planning. Skills and Competencies: Financial literacy theory also emphasizes the development of skills and competencies necessary for effective financial management. This includes skills such as budgeting, goal setting, financial planning, risk assessment, and evaluating financial options.

Behavioral aspects of financial literacy theory recognize the influence of behavioral factors on financial decision-making (Meyer, 2017). It highlights the importance of understanding cognitive biases, emotions, and the role of psychology in shaping financial behaviors. Access to Information and Resources: Financial Literacy Theory acknowledges the significance of providing individuals with access to reliable and relevant financial information, tools, and resources. This includes promoting financial education initiatives, improving access to financial services, and enhancing transparency in financial markets.

The Socioeconomic Context of Financial Literacy Theory acknowledges the role of socioeconomic factors in shaping financial literacy levels. It recognizes that individuals from different backgrounds may have varied levels of financial knowledge and access to resources, and therefore, efforts should be made to address these gaps (Stephens *et al.*, 2016).

The Financial Literacy Theory is highly relevant to the study of how financial literacy impacts investment decisions in small and medium-sized enterprises (SMEs), specifically coffee shops in Rwanda. This theory emphasizes the importance of individuals acquiring knowledge and understanding of financial principles, as well as the development of skills and competencies for effective financial management. It also recognizes the influence of behavioral factors, such as cognitive biases and emotions, in shaping financial behaviors. Additionally, the theory underscores the significance of providing access to reliable financial information and resources, as well as considering the socioeconomic context in which individuals operate. In the context of the study, this theory serves as a framework to explore how financial literacy,

Email: info@stratfordjournals.org ISSN: 2616-4965



encompassing knowledge, skills, behaviors, access, and socioeconomic factors, influences the investment decisions of coffee shop owners and employees in Rwanda's SME sector.

Theory of Planned Behavior

The main proponent of the theory of planned behavior (TPB) is Sutton (2016), who proposed it mainly for individual behaviors that can be changed. Since behavior can either be predictive or deliberate, TPB theory predicts the latter. TPB argues that human behavior can be categorized into behavioral beliefs, normative beliefs, and control beliefs. Behavioral beliefs are concerned with the likely consequences of individual behavior; normative beliefs are concerned with other people's expectations of our behavior; and a control belief stipulates that they are impediments to behavioral performance. Always, coffee shop employees are ready to undertake an action that may be triggered by their attitudes, skills, knowledge, and awareness. Although the theory is more skewed towards management, it's appropriate for the current study since it seeks to examine the influence of financial skills, financial awareness, financial attitudes, and knowledge on investment decisions among coffee shops.

The Theory of Planned Behavior (TPB), as proposed by Sutton (2016), is particularly relevant to the current study, even though it was originally designed for individual behaviors that can be intentionally changed. TPB centers on the prediction of deliberate behaviors and suggests that human behavior can be categorized into three main components: behavioral beliefs, normative beliefs, and control beliefs. Behavioral beliefs pertain to the perceived consequences of individual behavior, normative beliefs involve the expectations of others regarding our behavior, and control beliefs consider the factors that may impede or facilitate the performance of a behavior.

In the context of coffee shop employees, this theory implies that their actions are influenced by a combination of their attitudes, skills, knowledge, and awareness. While TPB is often associated with management studies, it remains appropriate for the current study as it seeks to investigate how financial skills, financial awareness, financial attitudes, and financial knowledge collectively impact investment decisions within the coffee shop industry. Therefore, TPB provides a valuable framework for understanding the intentions and behaviors of coffee shop owners and employees in the realm of financial decision-making.

Theory of Human Capital

The Human Capital Theory is an economic concept that suggests individuals make investment decisions based on their human capital, which includes their knowledge, skills, attitude, awareness, and other attributes that contribute to their earning potential (Nafukho *et al.*, 2017). In the context of financial literacy and investment decisions, the theory posits that individuals with higher levels of financial literacy are more likely to make informed investment choices (Lusardi & Mitchell, 2017). According to the Capital Theory, individuals with greater financial literacy have greater financial literacy. This theory suggests that financial literacy enhances an individual's knowledge and skills, allowing them to make more informed investment decisions. According to this view, financial literacy acts as a form of human capital, better equipped to understand and evaluate investment opportunities. They can assess risks, weigh potential returns, and make informed decisions th*et al*ign with their financial goals. This theory implies that financial literacy enhances an individual's human capital, leading to better investment decisions and potentially sophisticated returns.

The Theory of Human Capital, relevant to this study, posits that individuals make investment decisions based on their human capital, including knowledge, skills, attitude, awareness, and attributes affecting their earning potential. In the context of financial literacy and coffee shop investment choices, the theory suggests that higher financial literacy levels lead to more

Email: info@stratfordjournals.org ISSN: 2616-4965



informed decisions. Financial literacy enhances human capital by improving knowledge and skills, enabling risk assessment, return evaluation, and alignment with financial goals. This theory underscores financial literacy's importance as a form of human capital, promoting better investment decisions and potentially improved financial outcomes in the coffee shop industry's context, where sound financial choices are vital for sustainability and growth.

Investment Decision Theory

The Theory of Investment Decisions as propounded by Markowitz (2018) is a fundamental concept in finance that guides individuals and organizations when making critical choices about how to allocate their financial resources among various investment opportunities (Appadoo *et al.*, 2008). One key element in this theory is the consideration of the risk-return trade-off. Investors typically assess the potential return on an investment in relation to the level of risk associated with it. This principle is widely recognized in finance and is often referred to as one of the core tenets of investment decision-making (Markowitz, 2020). It suggests that investors may be willing to accept higher levels of risk for the prospect of earning greater returns or, conversely, may prioritize lower-risk investments to preserve capital.

Another central component of the Theory of Investment Decisions is the recognition of the time value of money. This concept acknowledges that money's value changes over time due to factors like inflation and interest rates. To address this, investment decisions involve discounting future cash flows to their present value. This allows investors to compare investment options on an equal footing, considering the time-based erosion of value (Brealey *et al.*, 2015). Investment appraisal techniques are essential tools in this theory. Techniques such as Net Present Value (NPV), Internal Rate of Return (IRR), Payback Period, and others enable investors to evaluate and compare investment opportunities. NPV, for instance, calculates the present value of expected future cash flows, helping assess the profitability and feasibility of an investment project (Copeland *et al.*, 2004).

Diversification is a risk management strategy central to the Theory of Investment Decisions. It recognizes that spreading investments across different asset classes, industries, or geographic regions can reduce portfolio risk. This concept, famously advocated by Markowitz (2017) in his Modern Portfolio Theory, is based on the idea that uncorrelated or negatively correlated assets can offset losses and enhance overall portfolio performance.

Behavioral factors play a vital role in investment decisions, as acknowledged in this theory. Cognitive biases, such as risk aversion, overconfidence, and loss aversion, can influence investors' choices (Kahneman & Tversky, 2018). The interplay between rational analysis and behavioral biases is a subject of ongoing research in finance and behavioral economics. Finally, the Theory of Investment Decisions considers the impact of economic and market conditions. Factors such as macroeconomic trends, interest rates, inflation, and geopolitical events can affect investment attractiveness. Understanding the broader economic context is essential for making informed investment decisions (Shiller, 2019).

Relevant to the current study, the Theory of Investment Decisions is highly relevant to the current study, which investigates the impact of financial literacy on investment decisions in the context of coffee shops. This theory provides a framework for understanding how coffee shop owners and managers make choices about allocating their financial resources among various investment opportunities. It encompasses key elements such as assessing risk-return trade-offs, considering the time value of money, and employing investment appraisal techniques like NPV and IRR. Additionally, the study acknowledges the role of behavioral factors and external economic conditions in shaping investment decisions, aligning with the principles of the Theory of Investment Decisions.

Volume 8||Issue 5||Page 40-57 ||April||2024|

Email: info@stratfordjournals.org ISSN: 2616-4965



3. Research methodology

The study adopted Inferential statistics Analysis design in order to interpret data. Therefore, both quantitative (questionnaire) and qualitative (interview) research techniques were used by the researcher in order to collect data (information) related to the objectives of the study and for data analysis..

A total of 120 coffee shops owners and managers was taken as the target population. In each coffee shop, two participants, including management and owners, were included in the study. The sample size was 120 people. The reason is because the population is small; therefore, take the entire population as a sample size.

Both primary and secondary data sources were utilized, with primary data collected through questionnaires and key informant interviews. Secondary data were obtained through a documentary review process.

The research instruments were tested for validity and reliability. Questionnaires, as a primary data collection method, were designed to align with the research objectives, utilizing a mix of close-ended and open-ended questions, primarily based on a Likert scale. Documentary review supplemented the primary data collection process, enhancing the depth of information acquired. For reliability, the Cronbach's alpha values for various variables were calculated, all surpassing the acceptable threshold of 0.7, indicating strong internal consistency. Editing, coding, and tabulation processes were employed to ensure data quality, consistency, and organization.

Data analysis involved Statistical Package for Social Science (SPSS V 21.0) for quantitative analysis. Inferential statistics, including Pearson correlation analysis and multiple regression analysis, were conducted to establish relationships between financial literacy and investment decisions in SMEs in Rwanda. Ethical considerations were a priority, ensuring confidentiality by avoiding the disclosure of respondents' identities and maintaining strict confidentiality of sensitive information throughout the study.

4. Findings

This chapter delves into the study's findings and provide their interpretation, drawing from the analysis of the data gathered through questionnaires. The study scrutinizes the influence of each financial literacy practices on investment decisions in SMEs in Rwanda, employing correlation analysis to unveil the associations. Additionally, regression analysis is leveraged to elucidate both the individual and collective impacts of these financial literacy practices on investment decisions in SMEs in Rwanda.

Correlation analysis Results

The correlation matrix presented below provides valuable insights into the complex interrelationships among Investment Decisions, Financial awareness, Financial Knowledge, Financial skills, and Financial attitude. This matrix quantifies both the strength and direction of the connections between these crucial variables, offering a clearer understanding of their interconnected nature.

Table 1: Correlation Analysis Matrix

Variables		Investment	Financial	Financial	Financial	Financial
		Decisions	awareness	Knowledge	skills	attitude
Investment	Correlation	1				.011
Decisions	Sig. (2-	.00				.003
	tailed)					
	N	120				.002
Financial	Correlation	.318**	1			.011
awareness	Sig. (2-	.003				
	tailed)					
	N	120	120			
Financial	Correlation	.464**	0.523*	1		
Knowledge	Sig. (2-	.002	.016			
S	tailed)					
	N	120	120	120		
Financial	Correlation	.422**	0.531**	0.754**	1	
skills	Sig. (2-	.002	.014	.000		
	tailed)					
	N	120	120	120	120	
Financial	Correlation	.367**	.267**	.321**	.232**	1
attitude						
	Sig. (2-	.011	.321	021	022	
	tailed)				~	
	N	120	120	120	120	120

^{**} Significance at 0.05 level (2-tailed)

Table 1 indicates there the Pearson correlation coefficient (r) between investment decisions and financial awareness is r = 0.318 and the associated significance, Sign. (2-tailed) is 0.003. This demonstrates that there is a moderate positive and statistically significant correlation (Sign. <0.05) between financial awareness and investment decisions at the 0.05 level of significance. This implies that as financial awareness increases, investment decisions tend to become more favorable or active.

Furthermore, there was a moderate positive (r=0.464) and statistically significant (Sign.0.05) correlation between financial knowledge and investment decisions at the 0.05 level of significance. This implies that as financial knowledge increases, investment decisions tend to improve or become more informed. Financial Skills and investment decisions also exhibit a moderate positive (r=0.422) and statistically significant (sign. = 0.002) correlation at the 0.05 level of significance. This implies that as individuals' financial skills improve, their investment decisions tend to become more favorable or informed. Moreover, the correlation between financial attitude and investment decisions is moderate and positive (0.367) and statistically significant (Sign.0.011) at the 0.05 level of significance. This implies that as individuals' financial attitude becomes more positive or favorable, their investment decisions tend to improve.

Regression model

Regression statistics analysis had to be done for statistical tests to determine whether there is enough evidence to accept or reject the null hypothesis.

Email: info@stratfordjournals.org ISSN: 2616-4965



Table 2: Regression Model Summary

Model	R	R-Square	Adjusted R-Square	Standard. Error of estimate
1	.678ª	.472	.453	.202

- a. **Predictors:** Financial awareness, financial knowledge, financial skills and financial attitude
- b. **Dependent variables:** Investment decisions

Table 2 shows that the coefficient of correlation (R-value)=0.678. This indicates that there is a moderate and positive relationship between the financial literacy and investment decisions among coffee owners and/or managers in the city of Kigali. This implies that higher financial literacy is associated with higher investment decisions. Therefore, as coffee shop owners and managers become more financially literate, they are more likely to make larger or more frequent investment decisions. Furthermore, the adjusted coefficient of determination (adjusted R-Square) is 0.453. This implies that approximately 45.3% of the variance in the investment decisions made by coffee shop owners and/or managers is attributed to their level of financial literacy. The remaining 54.7% of the variance in investment decisions is not explained by financial literacy in this model. This unexplained variance might be due to other factors or variables that were not included in the analysis. These could include factors like economic conditions, market trends, personal preferences, or other external influences that also affect investment decisions.

Table 3: Regression Model Coefficients

Model			ndardized fficients	Standardized coefficients	t	Sign.
		β	Std. error	Beta	•	
1	Constant	0.562	0.1388	.231	4.049	.020
	Financial awareness	0.212	0.157	.367	1.350	.011
	Financial knowledge	0.243	0.2321	.357	1.047	.003
	Financial skills	0.232	0.121	.204	1.917	.002
	Financial attitude	0.313	0.212	.248	1.476	.011

- a. **Predictor(s):** (Constant), financial awareness, financial knowledge, financial skills and financial attitude
- b. **Dependent variables:** Investment decisions

Source: Field data, 2023

Hypotheses Texting

Hypothesis one (Ho1) stated that financial awareness has no significant influence on investment decisions. Findings revealed that the financial awareness had a positive coefficient of the estimate which was significant (β = 0.212, p<0.05) at 5% level of significance. The null hypothesis was rejected and concluded that financial awareness had a positive significant influence on investment decisions. This suggested that for each one-unit increase in financial awareness, there was up 0.212 units change in investment decisions.

Hypothesis two (H_02) stated that financial knowledge has no significant influence on investment decisions. Findings revealed that financial knowledge had a positive coefficient of the estimate which was significant (β =0.243, p< 0.05). The null hypothesis was rejected and concluded financial knowledge had a positive significant influence on investment decisions. This suggested that that for each one-unit increase in financial knowledge, the predicted value of investment decisions increased by 0.243 units.



Hypothesis three (H₀3) stated that financial skills have no significant influence on investment decisions. Findings revealed that financial skills had a positive coefficient of the estimate which was significant (β = 0.232, p<0.05). The null hypothesis was rejected and concluded financial skills had a positive significant influence on investment decisions. This suggested that that for each one-unit increase in financial skills, the predicted value of investment decisions increased by 0.232 units.

Hypothesis four (H_04) stated that financial attitude has no significant influence on investment decisions. Findings revealed that financial attitude had a positive coefficient of the estimate which was significant (β =0.313, p<0.05). The null hypothesis was rejected and concluded financial attitude had a positive significant influence on investment decisions. This suggested that that for each one-unit increase in financial skills, the predicted value of investment decisions increased by 0.313 units.

Table 4: Analysis of Variance

Model	Source of	Sum of	Mean	Df	F	Sign.
	Variances	squares	Squares			
1	Regression	260.147	5	52.029	4.835	.012 (a)
	Residual	1,237.435	115	10.760		
	Total	1,497.582	120			

- a. **Predictor(s):** (Constant), financial awareness, financial knowledge, financial skills and financial attitude
- b. **Dependent variables:** Investment decisions

Table 4 presents the results of the Analysis of Variance (ANOVA) for the regression model to determine whether the regression model as a whole is statistically significant and whether the predictor variables collectively have a significant impact on the dependent variable. From the results, the F-statistic was calculated as 4.835, and the p-value associated with the F-statistic is p-value = 0.012. This indicates that the regression model is fit in explaining the variations in the dependent variable (investment decisions) at the 5% level of significance. This implies that the selected predictors, namely financial awareness, financial knowledge, financial skills, and financial attitude, are the true predictors of investment decisions and collectively have a significant impact on investment decisions among coffee shop owners in the City of Kigali.

5. Conclusion

The study concluded that coffee shop owners prioritize staying informed about financial matters, actively monitor market conditions, and are aware of potential financial risks and opportunities in the industry. This heightened financial awareness positively influences their investment decisions, underlining the significance of keeping abreast of financial trends. The study reveals that coffee shop owners have a deep understanding of financial concepts, can interpret financial statements with ease, and possess familiarity with various investment strategies. This robust financial knowledge equips them to make well-informed investment choices aligned with their coffee shop's financial goals. Coffee shop owners exhibit proficiency in several financial skills, including budget management, financial analysis, and negotiation of financial agreements. However, there is room for improvement in areas such as ROI assessment, risk management, and the utilization of financial software and tools. Coffee shop owners maintain a positive financial mindset, viewing financial challenges as opportunities for growth and improvement. They are motivated to make well-informed financial decisions and are willing to take calculated financial risks. However, recognizing financial planning and investment strategies as integral to long-term sustainability requires attention. Financial awareness, knowledge, skills, and attitude collectively contribute significantly to the quality and effectiveness of investment choices. Coffee shop owners who prioritize staying informed



about financial matters, possess strong financial knowledge, skills, and a positive financial mindset, tend to make more informed, strategic, and favorable investment decisions. These insights emphasize the importance of continuous learning and capacity-building to enhance financial skills and foster a positive financial attitude among coffee shop owners. Ultimately, these factors play a pivotal role in ensuring the long-term sustainability and profitability of coffee shop businesses.

6. Recommendations

Based on the findings and conclusions of the study, several recommendations can be provided to enhance the cooperative's performance and optimize the contribution of microfinance services:

- Coffee shop owners should invest in ongoing financial education and training to enhance their financial knowledge and skills.
- Coffee shop owners should seek guidance on ROI calculation methods and tools to make more informed growth decisions.
- Coffee shop owners should consider investing in user-friendly financial software and tools.
- Coffee shop owners should actively seek ways to maintain a constructive outlook, even when faced with economic uncertainties, as this mindset can influence their investment decisions.
- Continual discussions with fellow coffee shop owners about financial topics and investment strategies can be valuable.
- Coffee shop owners should recognize the importance of strategic financial planning and investment strategies as integral to long-term sustainability and profitability.

Acknowledgements

The realization of this study was made possible by the support and assistance of many people First of all I would like to thank my Lord Jesus who gave me this opportunity to study master's program at the University of Kigali.

I want to express my gratitude, particularly to my supervisor Dr. Tarus Thomas not only for supervising this work but also and most importantly for providing effective and relevant advice an invaluable atmosphere that enabled me to work confidently and successfully, I will always encouraging guidance and intellectual capacity basing on many readings, which will surely always guide me in my further academic endeavours, I am grateful for your very careful and critical reading of my work, as your invaluable comments suggestions and encouragement. I thank all, lecturers, and staff for organizing, lecturing, accompanying, and making the learning environment so wonderful. Great thanks to Rutongo Mines Ltd for financial, spiritual, and moral support to the completion of my studies, and deep gratitude to my dearest friends and classmates for their cooperation. Special thanks to all people who, in one way or another. And I would like to thank the staff various SMEs in my survey who have willingly shared their precious time during the process of answering the questionnaire.

To you all, I owe you much but can give you nothing; I just say God bless you

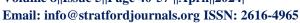


References

- Ader, H. J., Mellenbergh, G., & Hand, D. (2015). Advising on research methods. Johannes van Kessel. Amsterdam: Springer.
- Appadoo, S., Bhatt, S. K., & Bector, C. (2008). Application of possibility theory to investment decisions. *Fuzzy Optimization and Decision Making*, 7, 35-57.
- Atkinson, A., & Messy, F.-A. (2015). Measuring financial literacy: Results of the OECD/International Network on Financial Education (INFE) pilot study. Organisation for Economic Co-operation and Development.
- Barber, B. M., & Odean, T. (2013). The behavior of individual investors. *In Handbook of the Economics of Finance* (Vol. 2, pp. 1533-1570). Elsevier.
- Beck, T., Demirgüç-Kunt, A., & Honohan, P. (2015). Access to financial services: Measurement, impact, and policies. *World Bank Research Observer*, 22(2), 119-145.
- Basu, A. (2005). Financial literacy: Necessary but not sufficient. *Economic and Political Weekly*, 40(52), 5409-5410.
- Berg, L. (2009). Quantitative research methods for behavioral sciences (5th ed.). New York: Pearson.
- Bernheim, B. D., Garrett, D. M., & Maki, D. M. (2015). Education and saving: The long-term effects of high school financial curriculum mandates. *Journal of Public Economics*, 80(3), 435-465.
- Bhattacharjee, J., & Singh, R. (2017). Awareness about equity investment among retail investors: A kaleidoscopic view. *Qualitative Research in Financial Markets*, 9(4), 310-324.
- Bhushan, P. (2014). Relationship between financial literacy and investment behavior of salaried individuals. *Journal of Business Management & Social Sciences Research* (*JBM&SSR*), 3(5), 82-87.
- Bodie, Z., Kane, A., & Marcus, A. (2014). Investments-Global edition. McGraw Hill Education.
- Collins, J. M., & O'Rourke, C. M. (2015). Financial education and counseling—Still holding promise. *Journal of Consumer Affairs*, 44(3), 483-498.
- Copeland, T. E., Weston, J. F., & Shastri, K. (2004). Financial theory and corporate policy. Pearson Education.
- Cooper, D. R., & Schindler, P. S. (2015). Business research methods. McGraw-Hill Education.
- Demirgüç-Kunt, A., & Klapper, L. (2015). Financial inclusion in Africa: An overview (Policy Research Working Paper No. 6088). World Bank Publications.
- Drexler, A., Fischer, G., & Schoar, A. (2014). Keeping it simple: Financial literacy and rules of thumb. *American Economic Journal: Applied Economics*, 6(2), 1-31.
- Du, N., & Budescu, D. V. (2015). The effects of imprecise probabilities and outcomes in evaluating investment options. *Management Science*, 51(12), 1791-1803.
- Engelbrecht, L. (2015). The scope of financial literacy education: A poverty alleviation tool in social work? *Social Work/Maatskaplike Werk*, 44(3), 247-256.
- Eniola, A. A., & Entebang, H. (2016). Financial literacy and SME firm performance. International Journal of Research Studies in Management, 5(1), 31-43.



- Faizah, G. A. (2019). Financial literacy and its consequences: Evidence from Russia during the financial crisis. *Journal of Banking & Finance*, 37(10), 3904-3923.
- Fox, J., Bartholomae, S., & Lee, J. (2015). Building the case for financial education. *Journal of Consumer Affairs*, 39(1), 195-214.
- Furnham, A. (1984). Many sides of the coin: The psychology of money usage. *Personality and Individual Differences*, 5(5), 501-509.
- García, A. (2020). Financial literacy: Do people know the ABCs of finance? Measuring and promoting financial literacy. Oxford University Press.
- Gutter, M., & Copur, Z. (2015). Financial behaviors and financial well-being of college students: Evidence from a national survey. *Journal of Family and Economic Issues*, 32(4), 699-714.
- Hastings, J. S., & Mitchell, O. S. (2015). How financial literacy and impatience shape retirement wealth and investment behaviors. *Journal of Pension Economics & Finance*, 10(4), 637-662.
- Ibrahim, M. E., & Alqaydi, F. R. (2015). Financial literacy, personal financial attitude, and forms of personal debt among residents of the UAE. *International Journal of Economics and Finance*, 5(7), 126-138.
- Jacobs, B. W. (2001). Financial Literacy: Skills and consumer behavior. *Online Journal of Issues in Nursing*, 6(2), 12-19.
- Klapper, L., Lusardi, A., & Panos, G. A. (2015). Financial literacy and its consequences: Evidence from Russia during the financial crisis. *Journal of Banking & Finance*, 37(10), 3904-3923.
- Kotzè, J., & Smit, B. (2008). The role of financial literacy in the development of entrepreneurial competencies among students in the South African context. *South African Journal of Economic and Management Sciences*, 11(3), 325-341.
- Kumari, D. (2020). The Impact of Financial Literacy on Investment Decisions: With Special Reference to Undergraduates in Western Province, Sri Lanka. *Asian Journal of Contemporary Education*, 4(2), 110-126.
- Lusardi, A. (2015). Financial literacy: An essential tool for informed consumer choice? *Journal of Pension Economics & Finance*, 14(3), 332-347.
- Lusardi, A. (2015). Financial literacy: Do people know the ABCs of finance? *Public Understanding of Science*, 24(3), 260-271.
- Lusardi, A., & Mitchell, O. S. (2014). The economic importance of financial literacy: Theory and evidence. American Economic Journal: *Journal of Economic Literature*, 52(1), 5-44.
- Lusardi, A., Mitchell, O. S., & Curto, V. (2015). Financial literacy among the young. *Journal of Consumer Affairs*, 44(2), 358-380.
- Lusardi, A., & Mitchell, O. S. (2017). Financial literacy and retirement preparedness: Evidence and implications for financial education: The problems are serious, and remedies are not simple. *Business Economics*, 42(1), 35-44.
- Mahmoud, A. B., Hack-Polay, D., Reisel, W. D., Fuxman, L., Grigoriou, N., Mohr, I., & Aizouk, R. (2021). Who's more vulnerable? A generational investigation of COVID-19 perceptions' effect on Organizational Citizenship Behaviors in the MENA region: Job insecurity, burnout and job satisfaction as mediators. *BMC Public Health*, 21, 1-17.





- Meyer, M. (2017). Is financial literacy a determinant of health? *The Patient-Patient-Centered Outcomes Research*, 10(4), 381-387.
- Nafukho, F. M., Hairston, N., & Brooks, K. (2014). Human capital theory: Implications for human resource development. *Human Resource Development International*, 17(4), 545-551.
- Olsen, J. E., & Tudvad, P. (2016). Attitudes and consumption. *Handbook of Research on Consumerism in Business and Marketing: Concepts and Practices*, 2(5), 1-35.
- Potrich, A. C. G., Vieira, K. M., & Mendes-Da-Silva, W. (2016). Development of a financial literacy model for university students. *Management Research Review*, 39(3), 356-376.
- Remund, D. L. (2010). Financial literacy explicated: The case for a clearer definition in an increasingly complex economy. *Journal of Consumer Affairs*, 44(2), 276-295.
- Robb, C. A., & Sharpe, D. L. (2015). Effect of personal financial knowledge on college students' credit card behavior. *Journal of Financial Counseling and Planning*, 26(1), 15-30.
- Shiller, R. J. (2015). Irrational exuberance. Princeton University Press.
- Stephens, N. M., Hamedani, M. G., & Destin, M. (2014). Closing the social-class achievement gap: A difference-education intervention improves first-generation students' academic performance and all students' college transition. *Psychological Science*, 25(4), 943-953.
- Sutton, S. (2014). Predicting and explaining intentions and behavior: How well are we doing? *Journal of Applied Social Psychology*, 28(15), 1317-1338.
- Van Rooij, M., Lusardi, A., & Alessie, R. (2011). Financial literacy and stock market participation. *Journal of Financial Economics*, 101(2), 449-472.
- Van Rooij, M. C., Lusardi, A., & Alessie, R. J. (2012). Financial literacy, retirement planning and household wealth. *The Economic Journal*, 122(560), 449-478.
- Wulansari, G., & Anwar, L. (2018). Financial literacy, information, and demand elasticity: Survey and experimental evidence from Mexico. *Journal of Public Economics*, 92(10-11), 2071-2103.
- Worthington, A. C. (2015). The impact of financial education on students' personal financial skills. *Financial Services Review*, 24(4), 269-280.