

# Financial Literacy and Investment Decisions amongst Small Scale Tea Farmers in Bomet County, Kenya

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**Abstract:** Financial literacy is increasingly critical due to the growing complexity of the global economy, with its absence hindering individuals' ability to make sound investment decisions. This study examines how financial literacy impacts the investment decisions of small-scale tea farmers in Bomet County, Kenya, focusing on their knowledge of borrowing, budgeting, saving, and record-keeping. A descriptive survey design was employed, with data collected from small-scale tea farmers in Bomet Central Sub-County using simple random sampling. Data analysis was conducted using SPSS Version 22.0, incorporating both descriptive and inferential statistics. Reliability tests confirmed the questionnaire's validity, with Cronbach alpha values ranging from 0.713 to 0.882. Findings revealed that savings literacy significantly positively influenced investment decisions ( $\beta = 0.174$ ;  $p = 0.036$ ), while borrowing literacy ( $\beta = -0.022$ ;  $p = 0.805$ ), budgeting literacy ( $\beta = -0.055$ ;  $p = 0.501$ ), and record-keeping literacy ( $\beta = 0.041$ ;  $p = 0.647$ ) had no significant impact. The study concludes that improving savings literacy is essential for enhancing investment decisions among small-scale tea farmers. It recommends continuous financial literacy programs focusing on effective saving strategies, goal setting and the benefits of savings for future investments to improve financial planning.

**Keywords:** financial literacy, savings literacy, borrowing literacy, budgeting literacy, record-keeping, investment decisions.

## I. Introduction

The growth of the financial industry across the world is one of the key factors influencing a nation's economic progress that is constantly evolving dynamically. The development led to a wide variety of products and services, features and ease of access to services. Many experts argued that it needs a comprehensive understanding so that people can be successful and competitive in managing their finances (Ghasarma and Adam 2019).

The management of personal finance is one of the most fundamental competencies required by modern society because the choice of consumers from day to day will affect the financial security and standard of one's life. Many people are implementing investments decisions of their business based on self-taught personal financial management experience and frequent mistakes (Rohayati,Wahyono and Wulandari,2020).Financial literacy refers to the knowhow of managing, investing as well as spending money. Financial literacy is key to decision making process in matters of analysis, selection and investment in the best investment project. The knowledge helps to boost chances of success on personal investment decisions that looks on one's competitive advantage, investment risks, investment return, sources and cost of capital, financial inclusion and other financial market dynamics (King'ondu, 2020).

Financial literacy enhances individual's knowledge and understanding regarding the financial matters and it helps their decision making process relevant to personal finance. With the emergence of many new financial products worldwide, individuals may come across in issues relevant to their savings, borrowings, investment, and retirement planning. For the individuals who are not financially literate, it is very difficult to take effective decisions regarding the financial products by comparing the risk and the return. Hence for any individual a certain amount of financial literacy is needed (Walakumbura, 2021).Individuals may have different levels of savings based on the risk uptake and their risk appetites. Financial capability of an individual, health, preferences, individual perceptions, public policies, and available market opportunities plays a major role when defining the difference between actual and adequate level of savings. Most of the

households are in a situation where they cannot perform simple calculations due to lack of basic knowledge and most of their savings' methods are based on try and error method. Financial literacy seems to be an adequate area where every individual needs to cater towards. The investment literacy cannot be overemphasized since they directly affect people's standard of living. These choices include saving money for a child's education, retirement, personal aspirations, and a down payment on a house or car. (Walakumbura, 2021).

Germany, Canada, Denmark, Norway, Australia, Finland, Israel, the Netherlands, , Sweden, and the United Kingdom have the largest percentages of adult residents in each of these countries – at least 65 percent – who knowledge about finances. Nevertheless, financial literacy is among the lowest in South Asian nations. In these countries, less than 25% of adults possess financial literacy.(Klapper and Lusardi 2020).

There is a significant disparity in financial literacy rates between the world's main advanced and emerging economies. According to (Klapper et al 2020), the average adult financial literacy rate in the major advanced economies of the United States, Canada, France, Germany, Italy, Japan, and the United Kingdom is 55%. However, even within these nations, there is a huge variation in financial literacy, ranging from 37% in Italy to 68% percent in Canada. Based on the research result that was conducted in the framework of the National Strategy for Indonesian Financial Literacy, it showed that the literacy level of the Indonesian people to the financial products and services are still relatively low, amounting to 21.84% with the utility rate of 59.74% ( Khotiawan andLuthfiansyah2020).

In Kenya, improving financial literacy among small-scale farmers is crucial for sustainable agricultural development. Agriculture is the backbone of the economy, contributing about 33% to the GDP and employing over 60% of the population (KNBS, 2022). However, many smallholders farmers struggle with accessing financial services, managing credit, and making informed economic decisions due to limited financial literacy. This lack of understanding hinders their ability to increase productivity and improve livelihoods. Financial literacy enables farmers to access and manage credit more effectively, make informed investment decisions, manage agricultural risks, and improve financial inclusion (Mutua et al., 2019).

Despite the importance of financial literacy, government initiatives have not sufficiently targeted this area. Programs like the Agricultural Sector Development Support Programme (ASDSP) and the Kenya Agricultural Productivity and Agribusiness Project (KAPAP) focus more on increasing productivity than providing financial education (ASDSP, 2018). Non-governmental organizations (NGOs), such as the Agricultural Finance Corporation (AFC), have attempted to address this gap. The AFC offers tailored agricultural financing and claims to have improved farmers' financial literacy through its services, though its reach is often limited to specific regions (AFC, 2023). Other organizations, such as One Acre Fund and Farm Africa, have also integrated financial literacy training into their programs, teaching farmers about budgeting, saving, and investing (Kinyua and Onyango, 2020). However, these efforts remain insufficient to address the widespread need for financial education among farmers.

Several challenges impede the expansion of financial literacy programs. These include limited accessibility, as most programs are concentrated in certain areas, leaving many farmers in remote regions without access to training (Muriuki and Njagi, 2017). Additionally, cultural attitudes toward finance, where farmers rely on informal savings groups (chamas) instead of formal financial institutions, hinder engagement with formal financial services (Ngugi, 2020). Financial literacy programs also tend to adopt a one-size-fits-all approach, which may not be effective for addressing the diverse needs of farmers across different regions and contexts (Mutua et al., 2019). Finally, inconsistent government support has made it difficult to scale financial literacy initiatives. Integrating financial education into existing agricultural extension services could be a cost-effective way to reach more farmers (ASDSP, 2018).

To address these challenges, a more collaborative approach involving the government, NGOs, and financial institutions is necessary. The government could incorporate financial literacy into national agricultural policies and extension services, tailoring training materials to the specific financial needs of small-scale farmers (Wanyama, 2022). NGOs and private sector organizations can complement these efforts by developing region-specific financial literacy programs that are culturally and linguistically appropriate. Digital platforms like M-Pesa and M-Shwari also offer opportunities to deliver financial education to farmers via mobile phones (Kinyua and Onyango, 2020). Financial institutions would also benefit from investing in financial literacy programs, as better-informed farmers are likely to borrow responsibly, reduce default rates, and increase productivity (Mutua et al., 2019). In conclusion, improving financial literacy among Kenyan farmers is crucial for enhancing agricultural productivity and rural livelihoods. Although organizations like the AFC

and NGOs have made progress, expanding these efforts requires a holistic approach that involves multiple stakeholders working together to empower farmers with the knowledge and skills they need to make sound financial decisions.

Investment decisions made by small-scale tea farmers are critical for improving their economic status and ensuring sustainable agricultural practices. Despite the significance of tea farming in countries like Kenya, smallholder farmers often encounter challenges that hinder their ability to make informed investment choices. Understanding these challenges is essential for creating effective interventions that support farmers in their investment endeavours.

Financial literacy plays a pivotal role in the investment decisions of small-scale tea farmers. Many farmers lack the necessary financial knowledge to make sound investment choices, resulting in poor resource management and inadequate investment in agricultural practices. Research indicates that farmers with higher levels of financial literacy tend to make better investment decisions, particularly in allocating resources toward inputs such as fertilizers, seedlings, and technologies that enhance productivity (Phiri and Banda, 2022). Conversely, those with low financial literacy may struggle to assess the risks and returns associated with various investment opportunities. For example, a lack of understanding regarding loan terms and interest rates can lead to over-indebtedness, negatively impacting farmers' long-term financial health (Mutua et al., 2019).

Access to financial services is another significant factor influencing investment decisions among small-scale tea farmers. Many farmers operate without formal banking relationships, relying on informal savings groups, which limits their ability to secure loans for capital-intensive investments. According to a study by the Kenya National Bureau of Statistics (KNBS), only a small percentage of smallholder farmers utilize formal credit facilities, thereby restricting their capacity to invest in improved farming techniques and technologies (KNBS, 2022). The availability of tailored financial products, such as agricultural loans with favorable repayment terms, can enhance farmers' investment capacity. However, many financial institutions are hesitant to lend to small-scale farmers due to perceived risks, creating a gap that hinders investment potential (Kinyua and Onyango, 2020).

Government policies and programs aimed at supporting small-scale farmers significantly influence their investment decisions. Initiatives that provide financial education, access to credit, and incentives for sustainable farming practices can empower farmers to make informed investment choices. However, current government programs, such as the Agricultural Sector Development Support Programme (ASDSP), tend to focus more on productivity than on financial literacy and investment education (ASDSP, 2018). Non-governmental organizations (NGOs) and community-based organizations also play a critical role in enhancing investment decisions among small-scale tea farmers by offering financial training, access to markets, and facilitating connections with financial institutions (Mutua et al., 2019). Collaborative efforts between the government, NGOs, and private sector stakeholders are essential for creating an enabling environment that encourages responsible investment practices.

Cultural attitudes toward finance and investment can further impact decision-making among small-scale tea farmers. In many communities, informal savings groups, or "chamas," are preferred over formal banking systems, affecting how farmers perceive and engage with financial products (Ngugi, 2020). These cultural norms can influence investment strategies, leading farmers to prioritize communal savings over individual investment in their farms.

In conclusion, the investment decisions of small-scale tea farmers are multifaceted and influenced by various factors, including financial literacy, access to financial services, risk management, government support, and cultural norms. Addressing these challenges is essential for enhancing the investment capacity of smallholder farmers and improving their economic status, thereby contributing to sustainable agricultural development.

The smallholder tea sub-sector makes an important contribution in the Kenyan economy. Although subsector has enjoyed relative growth in terms of acreage, output and number of growers, productivity has remained low. Industry trends show that there are wide differentials between actual and potential yields, indicating underlying production inefficiencies and considerable potential to improve the farmers' income and livelihoods. The sector directly and indirectly supports over 10 million farm families, making it one of the leading sources of livelihood in the country livelihoods (Ateka, OnonoandEtyang2023).

Tea farming is the core economic activity in Bomet County, which is primarily cultivated in the eastern part of the county that borders the Mau Forest. Farmers in the areas that produce tea sell their goods to companies run by the Kenya Tea Development Agency. Kenya Tea Development Agency (KTDA) managed factories disbursed Ksh62.89

billion as payment to their smallholder tea farmers for July 2021 to June 2022 green leaf deliveries, inclusive of mini-bonuses out of which tea farmers use over 80% of their Premium in services for workers and their families and almost 11% in housing, education and health care. Going by the statistics, household income for smallholder tea growers is below the poverty line (less than 1.5 US Dollar per day).

## **II. Statement of the Problem**

The smallholder tea sub-sector plays a crucial role in the Kenyan economy, directly and indirectly supporting over 10 million families and serving as one of the primary sources of livelihood in the country (Ateka, 2023). In Bomet County, tea farming is the main economic activity, predominantly concentrated in the eastern region bordering the Mau Forest, where farmers sell their produce to factories managed by the Kenya Tea Development Agency (KTDA). Despite its significance, the poverty level in Bomet County remains alarmingly high, with 46.5% of the population living below the poverty line, according to the 2019 census. During the fiscal year from July 2021 to June 2022, KTDA disbursed Kshs 62.89 billion to smallholder tea farmers for green leaf deliveries, which included mini bonuses. However, these tea farmers' use over 80% in services for their families, 11% in housing, education and health care and the remaining 9% in investment (KTDA, 2023). This pattern reflects a failure to reinvest a significant portion of their income into productive activities that could reduce their vulnerability and dependence on tea farming alone. The lack of investment in alternative income-generating activities contributes to the vulnerability of farmers to market fluctuations (Kenya Tea Development Agency, 2023).

Additionally, survey shows that approximately 35% of small scale tea farmers participate in agricultural training programs which can enhance their investment decisions but many still lacks access to these services (Wambugu, Njeru,2021). Despite these substantial earnings, a significant problem lies in the investment decisions made by these small-scale tea farmers. The lack of financial literacy may hinder their ability to make sound investment decisions that could improve their economic status. Without proper financial knowledge, farmers might not be able to invest effectively in their farms, diversify their income sources, or save adequately for future needs. This mismanagement contributes to the persistent high poverty levels in the county. (Gathungu and Sabana, 2018; Safari, Njoka, and Munkwa, 2021) Gathungu and Sabana (2018), Safari, Njoka, and Munkwa (2021) conducted numerous research on financial literacy but none has focused on the investment decisions and as a result, this study aimed to investigate small-scale tea farmers financial literacy on investment decisions in Bomet County.

## **III. Research Objective**

The study was guided by the following objectives:

- i. To establish the effect of savings literacy on investment decisions amongst small scale tea farmers in Bomet County.
- ii. To find out the effect of borrowing literacy on investment decisions amongst small scale tea farmers in Bomet County.
- iii. To find out the effect of budgeting literacy on investment decisions amongst small scale tea farmers in Bomet County
- iv. To find out the effect of record keeping literacy on investment decisions amongst small scale tea farmers in Bomet County.

## **IV. Theoretical Review**

The theoretical review of the study was based on the Portfolio Theory, Financial Literacy Theory and Social Learning Theory

### **4.1.1 Portfolio Theory**

Portfolio theory is concerned with the construction of portfolios; i.e. collections of investments (Lumby and Jones, 2011), the portfolio theory was developed by Harry Markowitz in 1952 where he argued that when investors are deciding upon an investment opportunity, they evaluate the returns they expect to get against the attendant risk of the investment. It assumes that all investors are strictly rational in nature in that they seek to maximize their own utility and have the ability to do so in a consistent and transitive way Investors prefer higher returns to lower returns for a given level of risk, or they prefer less risk to more risk for a given level of expected return. It also assumes that investors are risk averse; this implies that investors hold well diversified portfolios instead of investing their entire wealth on a single or few assets. Another assumption the theory makes is that there are no transaction costs, and that there are no taxes. The theory is based on mathematical models that demonstrate risk reduction or elimination effects of diversification;

that the risk of a combination of several investments i.e. portfolio is less than the weighted average risks of individual constituent investments.

According to Lumby and Jones (2011), the statistical result upon which portfolio theory is founded supports the wisdom of not keeping all your eggs (investments) in one basket. Small scale tea farmers in their investment efforts can be guided by the principle objective of this theory: maximizing returns while minimizing risks. They need to choose investment opportunities that will minimize their risk exposure while not reducing their expected returns. Through this theory small scale farmers investment literacy was examined to see whether it influenced investment decisions making.

#### **4.1.2 Financial Literacy Theory**

This theory which is based on Gallery, Newton, and Palm's (2011) holds that knowledge preservation is an investment in human capital, and numerous empirical studies demonstrate that knowledge acquisition requires a considerably greater amount of information. The authors show how saving literacy shapes economic outcomes. They offer their last comments on the necessity for research to improve theoretical and empirical models, as well as public policy. Financial literacy theory posits that the behavior of individuals with high financial literacy may be influenced by the interplay of two thinking styles identified in dual-process theories: intuition and cognition. According to dual-process theories (Idowu, 2010), decision-making can be guided by both intuitive and cognitive processes. These theories have been explored and applied across various fields, including reasoning and social cognition.

Atkinson and Messy (2005) Investors who possess both the confidence to identify financial dangers and opportunities and the ability to comprehend financial concepts and products are said to be financially literate. It also involves their capacity for making wise choices, knowing when to ask for assistance, and executing other doable actions to enhance their financial security through product savings. Financial literacy plays a crucial role in empowering and educating investors by giving them the crucial financial information for their enterprise. Investors can evaluate items and make well-informed decisions with the help of this knowledge. Financially literate investors are better able to endure challenging economic times by employing risk-reduction techniques like saving money, diversifying their holdings, and acquiring insurance. Greenspan (2002) discovered in a US pension plan participation research that peer influences affected retirement savings decisions since many people had not properly considered the benefits and drawbacks of specific plans for themselves. This theory supported savings literacy on investment decisions amongst small scale tea farmers in Bomet county Kenya.

#### **4.1.3 Social Learning Theory**

Bandura and Ross (1961) posit that social learning theory illustrates how social factors such as sources of information and financial advice influence in shaping a person's behavior. The financial attitudes and values people have about money come from their environment. Bandura (1977) noted that a wide range of scenarios have been used to predict, test, and apply the impacts of social interactions on individual behavior. People receive and digest information through their interactions with others, which might have an impact on their financial decisions. Due to a lack of their own well-reasoned information to make wise borrowing decisions, many employees relied on information from peers when making participation decisions. Furthermore, because farmers want to be like others in their social group, their beliefs about social norms will also affect their decisions (Gravetter and Forzano,2003).

According to this theory, tea farmers as investors are likely to make borrowing decisions based on the information available in the market. If the information indicates that an investment has the potential to generate higher future returns, investors are more inclined to borrow funds and invest in such opportunities to maximize their returns (Goel and Dolan, 2003). The proponents of this theory, the behavioral theorists believed that learning led to a permanent change in behavior, observational learning demonstrates that people can learn new information without demonstrating new behaviors especially when considering making financial decisions concerning borrowing decisions (Glaeser and Scheinkman, 2003). Through these theory small scale tea farmers borrowing literacy was examined to see whether it influences investment decisions making in Bomet County, Kenya

## **V. Review of Literature on Variables**

### **5.1.1 Savings Literacy**

Saving can be viewed as positive financial behavior that translates into financial wellbeing for individuals and households and must acquire not only financial knowledge but also the ability and confidence to apply this expertise when making saving decisions (Cupak, Kolev and Brokesova2019).Individuals and firms need to save for the following reasons; to improve consumption patterns over their lifetime, to finance expected large expenditures, for example the purchase of assets (Agarwal, and Mannil,2023).

Yakob, Yakob, Bam and Rusli (2021) worked out a theory of spending that is predicated on the broad notion that individuals make decisions about their expenditures at every age, constrained solely by the resources available throughout their lives. This theory suggests that individuals follow a hump shaped saving pattern over their lifetime. During high earning periods of employment, individual savings increase while, during low earning periods (for instance, prior to employment, or during retirement), individuals use up savings to fund their needs. A saving culture is beneficial not only to the individual, but also to the entire economy. Strong financial literacy has a beneficial effect on saving amongst firms and individuals, because increased literacy implies that they have a better understanding of their financial situation and they would be in a better position to plan their future finances, hence make more informed financial decisions. Analyzing SMEs behaviors in developed countries reveal that financial literacy has critical implications for financial management and savings decisions (Adetunji, 2021).

An act according to Theory Planned Behavior (TPB) developed by Ajzen (1991) begins with an intention, namely the saving intention. However, the habit of saving must begin through education that can generate awareness so that awareness and desire to save arise. Saving money is a way to control one's financial use for daily needs. The funds saved will be used for future needs. Gross Domestic Saving to gross domestic product (GDP) rate of Indonesia in 2018 was 33,07%. The data shows that Indonesian people's understanding of financial literacy is still low. Savings' behavior includes two actions that coincide with the act of saving with the perception of future needs, and savings behavior is carried out to face risks if unexpected problems occur that require large funds (SatsiosandHadjidakis2018). Financial Literacy is a process to improve knowledge and skills. This ability will be an individual's strength in managing finances and raising awareness of the high importance of being able to meet financial needs in the future (Sanjeewa and Hongbing 2019). The better a person's financial literacy is, the motivation to save is stronger ((Widjaja, Arifin, and Setini,2020)

### **5.1.2 Borrowing Literacy**

The understanding of ideas that are directly relevant to debt, such as the ability of compound interest to build up, how credit cards operate, and the distinction between paying in installments and making one large payment at a time. Moore (2018) observes that, in addition to individual and household assets, there is a correlation between debt and borrowing and financial knowledge. High-cost mortgages are particularly common among persons with lower financial literacy. Similar findings are also demonstrated by Campbell (2020), who demonstrates that people with lower incomes are less likely to keep their mortgages while interest rates are dropping. Financial literacy is closely associated with these characteristics. An analysis conducted by kyoungtaekim, and hanna, (2019). found that applicants for subprime mortgages are more likely than not to be illiterate. According to Lusardi and Tufano (2019), those with less financial literacy tend to participate in high-cost transactions, incurring more fees and taking out expensive loans. Furthermore, people with less experience assert that either they are unable to evaluate their debt status or their debt burdens are excessive. Mottola (2021) asserts that women are more prone than males to utilize credit cards excessively if they lack financial literacy.

### **5.1.3 Budgeting Literacy**

Budgetary planning refers to setting quantitative targets for the organization and individuals and preparing various budgets that enhance their performance (Sulthana and Subrahmanyam, 2022). Business organizations use budgeting as a crucial stage in consumer loans. A desirable financial activity that shows a consumer's financial aptitude is budgeting. One proactive way to keep your finances organized is by budgeting. By keeping track of your income and expenses, a budget helps you make sure that you are bringing in more money than you are spending. This enables you to prepare for both short- and long-term goals, pay for living expenses, and purchase items that are meaningful to you (Xiao and O'Neill (2018).

As proposed by Njoki (2022) the formal budget planning and the formal budget control have two important facets of the regular budget process by SMEs. They classified three special types of firms. In first category, firms do not use any type of budget. In the second group, they represent a less comprehensive planning process with respect to a few areas of operation i.e. simple budgeting. In the third group many different areas of operation are included with regard to the detailed budget plan used by the firms. These firms engage in a more comprehensive planning process. In addition, the administrative control of the budget is focused in the third category in terms of budget control.

#### **5.1.4 Record Keeping Literacy**

Farmers learn record-keeping concepts then apply new knowledge by practicing record-keeping skills (Barr and McClellan (2019). The recording and tracking of a farm business income and expenditure are thought to influence productivity and profitability. For this purpose, record keeping is an important practice for any farming business. The ability of a tea farmer to understand this practice and put it into use is an indicator of information literacy in good farm practice. The respondents were interviewed on their assessment of the level of record-keeping or accounting, ranging from low to medium and high. Record-keeping was explained by the interviewer as the practice of keeping documents on production inputs and outputs. After the explanation, the interviewees were asked to rate their levels; their ratings were classified as low, medium, or high. Since some farmers kept their records in their memory none of the respondents could be classified as having no records (Sang, and Cheruiyot, 2020).

According to (Idere2019) he investigated the nexus between accounting records and performance of small and medium scale enterprises. The study advised appropriate orientation in terms of financial literacy. The analysis's results demonstrated that the majority of SMEs do not maintain accounting records and campaign for SMEs to keep accounting records. Khan, Khokhar, and Shaikh (2019) studied the impact of record-keeping literacy on business performance, finding that SMEs with strong record-keeping practices are more likely to secure financing and achieve long-term growth. Alhassan and Musah (2020) examined the role of record-keeping literacy in financial transparency, showing that accurate record-keeping is essential for ensuring accountability and compliance with financial regulations. Mukhopadhyay and Sarin (2021) explored the importance of digital record-keeping in the modern economy, emphasizing that businesses with digital literacy are better equipped to manage their finances efficiently. Chege and Bett (2022) found that record-keeping literacy is crucial for farmers, as it helps them make informed decisions about resource allocation, leading to higher productivity and profitability. Okello and Nuwagaba (2023) analyzed the challenges faced by SMEs in maintaining financial records, concluding that improved record-keeping literacy could enhance business performance and financial stability.

#### **5.1.5 Investment Decisions**

Investment is putting money into an asset with the expectation of capital appreciation, dividends, and/or interest earnings. A good investment strategy will diversify the portfolio according to the specified needs. To make well-informed investment decisions, individuals require to be able to manage their resources. When choosing an investment, it is crucial to understand the risk-return trade-off and understand the risk-taking capacity of individuals. The assessment of different investment opportunities calls for financial education to understand the role of the parameter. Financial awareness focuses on the need for financial education and the source of financial education. Financial education is increasingly important for all individuals. It is essential for every family trying to balance its budget, acquire a home, to fund the children's education, and ensuring that there will be income when parents retire (Shrestha Manandhar, Bhattarai, and Shrestha,2023).

Investment decisions are one of the important areas of personal financial planning and it includes developing various investment strategies. These approaches have to consist of creating an asset allocation strategy and a methodical investing plan. (Ogunleye,2022).

The investment decision is influenced by past profit experiences and an investor's estimate of future profit opportunities as well as the cost of the finance. Any rational investor would undertake an investment project which provides them with higher profits than the cost of finance (Virlics, 2021).

To make well-informed investment decisions, individuals need to effectively manage their resources and assets. Understanding the risk-return trade-off and assessing one's risk tolerance are crucial when selecting investments. Evaluating different investment opportunities requires financial education to grasp the significance of these factors. Therefore, the source of financial education is essential (Shrestha, 2023).

Adamu and Oladipo,2020) studied on the Role of Financial Literacy in Agricultural Investment Decisions amongst Rice Farmers in Nigeria. The Target Population was rice farmers in Nigeria. The Research Design employed was Mixed-method survey. The Analysis Tools used for data analysis was structural equation modeling (SEM).the findings shows that financial literacy increased the likelihood of farmers to invest in irrigation systems and soil improvement practices..

## **VI. Research Methodology**

Research design refers to the plan and strategy of investigation conceived in an effort to find the answers to research questions (Thirusangu and Singh, 2019). A descriptive research design, according to Augustin and Cackowski-Campbell

2020) is defined as a study that is carried out to ascertain the features of a particular element or factor for example age, income or in this particular case determining financial literacy and investment decisions. Descriptive survey design was used to solicit the desired information through adoption of questionnaires and was effective for this study as it helped uncover small scale tea farmer’s level of knowledge about financial concepts, budgeting practices and awareness of investment options. The target population comprised 172,035 registered tea farmers according to Kenya Tea Development agency (KTDA) manual of registered farmers who delivered their tea leaves to the factories in Bomet County, thus they were suitable for the study.

This research adopted Nassiuma’s formulae (2000) to select an appropriate sample size from a finite population. The researcher purposively picked Bomet Central Sub County with a target population of 86,738 and a sample size of 156 tea farmers was drawn who were directly involved in tea farming business and was able to fill the questionnaires. Nassiuma’s formula was used to determine the sample size for the study as follows:

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

Where: n = Sample size, N = Population,  
C = Coefficient of variation,  
e = Standard error.

C=25% is acceptable according to Nassiuma (2000), e = 0.02 and N= 86783

$$n = \frac{86783 \times 0.25^2}{0.25^2 + (86783 - 1) 0.02^2}$$

$$n = \frac{5423.9375}{34.7753} \quad n = 156$$

Thus, the sample was 156 small scale tea farmers

The data was collected and descriptive statistics were used to determine the normality of data. Inferential statistics was used to determine the relationship between variables while a linear regression model was used to test the hypotheses. The study findings were presented in form of tables.

The following regression model guided the study.

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

Where:

Y	represents	investment decisions
B <sub>0</sub>	represents	Constant
X <sub>1</sub>	represents	saving literacy
X <sub>2</sub>	represents	borrowing literacy
X <sub>3</sub>	represents	budgeting literacy
X <sub>4</sub>	represent	record keeping literacy
ε	represents	Error term
β <sub>1</sub> , β <sub>2</sub> , β <sub>3</sub>	represent	Régressions Coefficients of Independent Variables

## **VII. Results and Discussion**

Response rate refers to the number of respondents who successfully filled the research instrument (questionnaires) against the total number of respondents. In survey studies, Choi and Pak (2023) postulates that the response rate is deemed sufficient when it reaches 75 %. In the present study, 156 respondents were issued with questionnaires where 132 respondents filled the questionnaires successfully. Therefore, the response rate was found to be 85%, which according to Choi and Pak (2023) was considered sufficient.



7.1.1 Effect of saving literacy on investment decisions

The researcher sought to determine the effect of saving literacy on investment decisions. The descriptive findings are presented in Table 4.1:

a) Table 4.1: Effect of Saving Literacy on Investment Decisions

	N	SA	A	N	D	SD	Mean	Std. Dev.
I save a given percentage from my monthly pay, before spending the Balance	132	46.2%	36.4%	13.6%	3%	8%	4.24	0.857
I increase my savings when I receive income increment	132	28%	18.2%	36.4%	10.6%	6.8%	3.50	1.201
I understand the difference between fixed and variable interest rates and how they can affect my loan repayments	132	63.6%	16.7%	12.1%	3.8%	3.8%	4.33	1.074
I save to earn an interest	132	13.6%	24.2%	28.8%	18.2%	15.2%	3.03	1.260
I am a member of a Sacco where I do my savings	132	49.2%	28.8%	13.6%	7.6%	8%	4.18	0.987
I set aside some amount for emergency funding	132	21.2%	21.2%	35.6%	17.4%	4.5%	3.37	1.135

The findings in Table 4.1 show that 46.2% of the respondents strongly agreed, 36.4% agreed, hence 86.6% at least agreed (Mean=4.24; Std. Dev.= 0.857) that they save a given percentage from monthly pay, before spending the balance. This means that there is a saving of a given percentage from monthly pay before spending the balance and this affects investment decisions. 28% of the respondents strongly agreed, 18.2% agreed, and the majority (36.4%) had differing opinions (mean=3.50; std.dev=1.201) that they increase savings when they receive income increment. 63.6% of the respondents strongly agreed, and 16.7% agreed, hence 80.3 % at least agreed (mean=4.33; std.dev.= 1.074) that they understand the difference between fixed and variable interest rates and how they affect loan repayments. This means that the majority of small-scale tea farmers understand the difference between fixed and variable interest rates and loan repayments and this affects investment decisions which these farmers may want to choose as the best alternative and can invest their income to attain good returns. However, 28.8% were indifferent (mean=3.03; std.dev.= 1.260) that they save to earn an interest.

Additionally, 49.2% of the respondents strongly agreed, 28.8% agreed and hence 78% at least agreed (mean=4.18; std.dev= 0.987) that they are members of a Sacco and do savings. 13.6% disagreed while only 1.5% strongly disagreed. This means that small scale tea farmers who are members of a Sacco and do savings increase their capital invested by earning a return over a specified agreed period and a certain interest rate and this affects investment decisions. 42.4% of the respondents agreed that they set aside some amount for emergency funding. Overall, the findings established that saving literacy affects the investment decisions of small-scale tea farmers in Bomet County. The findings related to Atkinson and Messy (2019) explored the impact of financial education programs on savings behavior. Their study found

that targeted financial literacy programs significantly improved individuals' savings habits, particularly among low-income groups. Tang and Baker (2021) conducted a study on the effects of financial literacy on emergency savings. They found that individuals with higher financial literacy were better prepared for financial emergencies, highlighting the importance of financial education in building a safety net. Under the current study, the consistency of savings habits is analyzed in saving literacy. The investment decisions depend on the consistency of saving habits, which is a key determinant of saving literacy.

**7.1.2 Effect of borrowing literacy on investment decisions**

The study sought to determine the effect of borrowing literacy on investment decisions amongst small scale tea farmers. The descriptive findings are presented in Table 4.2:

*Table 4.2: Effect of Borrowing Literacy on Investment Decisions*

	N	SA	A	N	D	SD	Mean	Std. Dev.
I understand the difference between fixed and variable interest rates and how they can affect my loan repayments	132	35.6%	25.8%	17.3%	14.4%	6.8%	3.69	1.279
I am aware of the various fees and penalties(e.g,origination fees,late payment fees,early repayment penalties)that can be associated with loans.	132	38.8%	40.9%	10.6%	9.1%	8%	4.08	0.962
I know how to compare different loan offers by evaluating the interest rates, fees, and overall terms to determine which is the most cost-effective.	132	31.8%	46.2%	15.6%	3.8%	3%	4.00	0.949
I understand how to calculate the total cost of a loan, including both the principal and interest over the life of the loan	132	33.3%	27.3%	16.7%	12.9%	9.8%	3.61	1.329
I create a detailed monthly budget that includes my loan repayments to ensure timely payments	132	46.2%	28%	14.4%	6.8%	4.5%	4.05	1.138

"I prioritize loan repayments in my budget over discretionary spending to avoid missed payments	132	37.1%	18.2%	21.2%	13.6%	9.8%	3.59	1.365
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The findings in Table 4.2 show that 35.6% of the respondents strongly agreed, 25.8% agreed, hence 61.4 % at least agreed (mean=3.69; std.dev.= 1.279) that they understand the difference between fixed and variable interest rates and how they can affect their loan repayments. Based on the findings, this means that those who understand the difference between fixed and variable interest rates and how they can affect their loan repayments and as such affect investment decisions. 38.8% of the respondents strongly agreed, 40.9% agreed, hence 79.7 % at least agreed (mean=4.08; std.dev.= 0.962) they are aware of the various fees and penalties(e.g,origination fees,late payment fees,early repayment penalties)that can be associated with loans.The findings showed that most of the small scale tea farmers are aware of various fees and penalties and as such affect investment decisions.

Moreover, 31.8% of the respondents strongly agreed, 46.2%agreed, hence 78% at least agreed (mean=4.00; std.dev.= 0.949) that they know how to compare different loan offers by evaluating the interest rates, fees, and overall terms to determine which is the most cost-effective. According to the findings, those who know how to compare different loan offers by evaluating the interest rates, fees, and overall terms to determine which is the most cost-effective alternative way of funding investment with a cheaper loan has assisted the farmers a lot in making decisions and this affects investment decisions. Also, 33.3% of the respondents strongly agreed, and 27.3% agreed hence 60.6% at least agreed (mean=3.61; std.dev.= 1.329) that they understand how to calculate the total cost of a loan, including both the principal and interest over the life of the loan. This means that those who understand how to calculate the total cost of a loan, including both the principal and interest over the life of the loan have influenced their choice of investment decisions which they want to undertake.

46.2% of the respondents strongly agreed, furthermore, 28% agreed hence 74.2% at least agreed (mean=4.05; std.dev.= 1.138) that they create a detailed monthly budget that includes loan repayments to ensure timely payments. This indicates that small-scale tea farmers develop a detailed monthly budget that incorporates loan repayments to ensure they are paid on time. Furthermore, 37.1% of the respondents strongly agreed, and 18.2% agreed, resulting in a total of 55.3% who at least agreed (mean = 3.59; std. dev. = 1.365) that they prioritize loan repayments in their budgets over discretionary spending to prevent missed payments.. Overall, the findings established that borrowing literacy affects the investment decisions of small-scale farmers in Bomet County. The findings related to the findings of Hastings, Madrian, and Skimmyhorn (2019) who explored the impact of borrowing literacy on financial outcomes, finding that individuals with higher borrowing literacy are more likely to avoid costly loans and better manage their debt, resulting in improved financial well-being. Under the current study, the consistency of avoiding expensive loans in investment is manifested.

**7.1.3 Effect of budgeting literacy on investment decisions**

The study aimed to assess the effect of budgeting literacy on investment decisions. The descriptive findings are presented in Table 4.3.

b) Table 4.3: Effect of Budgeting Literacy on Investment Decisions

	N	SA	A	N	D	SD	Mean	Std. Dev.
I understand my cross annual estimated earnings	132	47.7%	34.8%	7.6%	9.1%	8%	4.20	0.976
I expect an increase in bonuses in the	132	19.7%	25.8%	32.6%	8.3%	13.6%	3.30	1.265

coming year

I know my fixed and variable expenses related to tea production	132	52.3%	29.5%	13.6%	3%	1.5%	4.28	0.919
I know recurring costs in my farming that must be paid	132	21.2%	12.9%	40.2%	14.4%	11.4%	3.18	1.247
I estimate the future costs associated with tea production	132	16.7%	13.6%	37.1%	15.2%	17.4%	2.97	1.290
I allocate some amount towards savings and investments each month	132	62.1%	18.9%	10.6%	3.8%	4.5%	4.30	1.098

The findings in Table 4.3 show that 47.7% of the respondents strongly agreed, 34.8% agreed hence 82.5% at least agreed (mean=4.20; std.dev.=0.976) that they understand their gross annual estimated earnings. This means that those who understand gross annual estimated earnings can budget for what is possible to be achieved and funds are allocated without straining the account. As per the study findings, 32.6% of the respondents had differing views (mean=3.30; std.dev.= 1.265) that they expect an increase in bonuses in the coming year. 19.7% strongly agreed while 25.8% agreed thus at least 45.5% agreed with this statement. This means those who expect an increase in bonuses in the coming year are well guided by the cash flow of previous years and they can easily estimate the budget for coming investment opportunities. Additionally, 52.3% of the respondents strongly agreed, and 30.3% agreed, hence 81.8% at least agreed (mean=4.28; std.dev.=0.919) that they know their fixed and variable expenses related to tea production.

However, 40.2% of the respondents had differing opinions (mean=3.18; std.dev.= 1.247) that they know their recurring costs in farming that must be paid. Lastly, 62.1% of the respondents strongly agreed, and 18.9% agreed hence 81% at least agreed (mean=4.30; std. dev.= 1.098) allocate some amount towards savings and investments each month. This means that they allocate some amount towards savings and investments each month and this affects investment decisions. Overall, the findings established that budgeting literacy affects the investment decisions of small-scale farmers in Bomet County. The findings of Ward and Lynch (2023) demonstrated that improved budgeting literacy leads to better financial outcomes, including higher savings rates and reduced reliance on credit, underscoring the importance of budgeting education. The current study underscores the importance of budgeting education as a key determinant in investment decisions.

#### 7.1.4 Effect of Record keeping literacy on investment decisions

The study aimed to evaluate the effect of record-keeping literacy on investment decisions. The descriptive findings are presented in Table 4.4.

**Table 4.4: Effect of Record Keeping Literacy on Investment Decisions**

	N	SA	A	N	D	SD	Mean	Std. Dev.
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I maintain a systematic filing system for my financial records that allows me to easily locate documents when needed	132	16.7%	15.2%	38.6%	22%	7.6%	3.11	1.157
I regularly update my financial records to ensure they reflect my current financial situation accurately	132	65.2%	23.5%	5.3%	4.5%	1.5%	4.46	0.903
I update my financial records on a regular basis,	132	27.3%	47%	17.4%	6.8%	1.5%	3.92	0.925
I consistently file and record receipts and invoices shortly after receiving them to maintain accurate financial records.	132	68.9%	19.7%	6.8%	3.8%	8%	4.52	0.842
I ensure that all financial transactions are recorded accurately and reflect the exact amounts involved	132	17.4%	11.4%	41.7%	9.8%	19.7%	2.97	1.307
I regularly double-check my financial entries to verify their accuracy and correctness	132	28%	40.2%	25%	4.5%	2.3%	3.87	0.952

The findings in Table 4.4 show that 38.6% of the respondents had differing opinions (mean=3.11; std.dev.= 1.157) that they maintain a systematic filing system for financial records that allows them to easily locate documents when needed. 16.7% strongly agreed and 15.2% agreed with the same assertion. This means maintaining a systematic filing system for financial records allows one to easily locate documents when needed for reference purposes, especially on the budgets that were previously done. Moreover, 65.2% of the respondents strongly agreed, and 23.5% agreed hence 88.7% at least agreed (mean=4.46; std.dev= 0.903) that they regularly update financial records to ensure they reflect the current financial situation accurately. This means regular updating of financial records to ensure they reflect the current financial situation accurately for reference purposes. The findings show that 27.3% of the respondents strongly agreed, 47% agreed hence 74.3% at least agreed that they update financial records regularly. 68.9% of the respondents strongly agreed, and 19.7% agreed hence 88.6% at least agreed (mean=4.52; std.dev.= 0.842) that they consistently file and record receipts and invoices shortly after receiving them to maintain accurate financial records. Furthermore, 41.7% of the respondents were indifferent that they ensure that all financial transactions are recorded accurately and reflect the exact amounts involved. Lastly, 28% of the respondents strongly agreed, and 40.2% agreed hence 68.2% at least agreed that they regularly double-check financial entries to verify their accuracy and correctness. This means regularly double-checking financial entries to verify accuracy accountability and correctness is very crucial for small-scale tea farmers. Overall, the findings established that record-keeping literacy affects the investment decisions of small-scale tea farmers as this usually involves records of previous budgets being used for reference purposes when preparing the current budgets. The findings related to the findings of Alhassan and Musah (2020) examined the role of record-keeping literacy in financial transparency, showing that accurate record-keeping is essential for ensuring accountability and compliance with financial regulations.

### **7.1.5 Investment Decisions**

The research sought the views of the respondents on investment decisions amongst small scale tea farmers in Bomet County. The descriptive findings are presented in Table 4.5:

Table 4.5: Investment Decisions

	N	SA	A	N	D	SD	Mean	Std. Dev.
I spread my money across more than one type of Investment.	132	49.2%	31.1%	11.4%	8.3%	0%	4.21	0.949
I have a target value of my investments	132	48.5%	34.1%	11.4%	6.1%	0%	4.25	0.886
I consider several investment products that earn high interest rates	132	40.2%	36.4%	14.4%	7.6%	1.5%	4.06	0.994
I purchase additional land	132	46.2%	30.3%	15.9%	6.8%	8%	4.14	0.974
I invest in real estate	132	51.5%	28%	12.1%	7.6%	8%	4.22	0.983
I have Fixed deposits in Sacco	132	54.5%	28%	9.8%	5.3%	2.3%	4.27	0.997

The findings in Table 4.5 indicate that 49.2% of the respondents strongly agreed, 31.1% hence 80.3% at least agreed (mean=4.21; std.dev.= 0.949) that they spread money across more than one type of investment. This means spreading money across more than one type of investment can diversify the risk of investing in one project. 48.5% of the respondents strongly agreed, and 34.1% agreed hence 82.6% at least agreed (mean=4.25; std.dev.= 0.886) that they have a target value of investments. Moreover, 40.2% of the respondents strongly agreed, and 36.4% agreed hence 76.6% at least agreed (mean=4.06; std.dev.= 0.994) that they consider several investment products that earn high interest rates. Furthermore, 46.2% of the respondents strongly agreed, and 30.3% agreed hence 76.5 % at least agreed (mean=4.14; std.dev.= 0.974) that they purchase additional land. This means purchasing additional land by small-scale tea farmers to increase plant acreages has affected investment decisions. 51.5% of the respondents strongly agreed, 28% agreed hence 79.5% at least agreed (mean=4.22; std.dev.= 0.983) that they invest in real estate. Lastly, 54.5% of the respondents strongly agreed, 28% agreed hence 82.5% at least agreed (mean=4.27; std.dev.= 0.997) that they have fixed deposits in Sacco. This means that a good number of small-scale tea farmers have fixed deposits in Sacco which will earn a fixed agreed interest and maturity period. According to the descriptive research findings financial literacy that encompasses saving literacy, borrowing literacy, budgeting literacy, and record-keeping literacy affects investment decisions of small-scale tea farmers in Bomet County. The findings related to the findings of Hoffmann and Post (2018) examined the impact of financial literacy on investment behavior, finding that individuals with higher financial literacy are more likely to engage in diversified and risk-appropriate investments.

**Diagnostic Tests**

Diagnostic tests were conducted before regression analysis and included; normality tests, linearity tests, multicollinearity tests, and homoscedasticity tests

**Normality Test**

Normality denotes a symmetrical continuous distribution defined by the mean and standard deviation. For normally distributed data, the p-value exceeds the 5% significance level. Conversely, if the p-value is less than the significance level, the data is not normally distributed. Table 4.6 displays the normality test results:

c) Table 4.6: Normality Test Results

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Investment decision	.070	132	.194*	.986	132	.199

. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

The results in Table 4.6 shows that the significance value (p=0.199) was greater than 0.05. Therefore, the data conforms to the assumption of linear regression that data is normally distributed. The result implies that the data yielded reliable and dependable results. Further, the data allowed for precise estimation of parameters in terms of means and standard deviations.

#### 4.4.2 Linearity Tests

A linearity test was conducted to evaluate the presence and strength of a linear relationship between two study variables, in accordance with the linearity assumption in a linear regression model. The goal was to test the linearity between each independent variable (savings literacy, borrowing literacy, budgeting literacy, and record-keeping literacy) and the dependent variable (Investment decisions) concerning small-scale tea farmers. The results of the linearity tests are presented in Tables 4.7, 4.8, 4.8, and 4.10.

d) Table 4.7: Linearity Test Results for saving Literacy against Investment decisions

				Sum of	df	Mean	F	Sig.
				Squares		Square		
Investment saving literacy	literacy	Between Groups	(Combined)	10.973	18	.610	1.205	.269
			Linearity	2.486	1	2.486	4.914	.029
			Deviation from Linearity	8.487	17	.499	.987	.478
Within Groups				57.165	113	.506		
Total				68.139	131			

As indicated in Table 4.7, the significance value for the linearity test of savings literacy against investment decisions is 0.478. This significance value is greater than 0.05, implying that there is a linear relationship between saving Literacy and Investment decisions on small scale tea farmers in Bomet County. Therefore, a change in the values of the saving literacy leads to consistent variation in the values of investment decisions variable.

e) Table 4.8: Linearity Test Results for Borrowing Literacy against Investment decisions

				Sum of	df	Mean	F	Sig.
				Squares		Square		
Investment	literacy	Between	(Combined)	5.512	16	.345	.633	.852

borrowing literacy	Groups	Linearity	.133	1	.133	.245	.622
		Deviation from Linearity	5.379	15	.359	.658	.820
		Within Groups	62.627	115	.545		
	Total	68.139	131				

The results in Table 4.8 indicate that the significance value for deviation from linearity ( $p = 0.820$ ) was greater than 0.05. This suggests that a linear relationship exists between borrowing literacy and the investment decisions of small-scale tea farmers in Bomet County. Consequently, this allows for accurate predictions of borrowing literacy based on the values of investment decisions.

*f) Table 4.9: Linearity Test Results for Budgeting Literacy against Investment decisions*

				Sum of Squares	df	Mean Square	F	Sig.
Investment literacy budgeting literacy	Between Groups	(Combined)		8.194	17	.482	.917	.556
		Linearity		.004	1	.004	.007	.933
		Deviation from Linearity		8.190	16	.512	.973	.490
	Within Groups		59.945	114	.526			
Total				68.139	131			

According to the linearity test results, in table 4.9 the significance value ( $p=0.490$ ) for budgeting Literacy was more than 0.05. As such, the Budgeting Literacy and Investment decisions are linearly related. This enabled the researcher to draw reliable conclusions from the analysis of the association between Budgeting Literacy and Investment decisions.

*g) Table 4.10: Linearity Test Results for Record Keeping Literacy on Investment Decisions*

				Sum of Squares	df	Mean Square	F	Sig.
Investment literacy record keeping literacy	Between Groups	(Combined)		11.643	18	.647	1.294	.205
		Linearity		.477	1	.477	.953	.331
		Deviation from Linearity		11.166	17	.657	1.314	.197
	Within Groups		56.496	113	.500			
Total				68.139	131			

The results in Table 4.10 indicate that the significance value for deviation from linearity ( $p = 0.197$ ) was greater than 0.05. This suggests that a linear relationship exists between record-keeping literacy and the investment decisions of small-scale tea farmers in Bomet County. Consequently, this enables accurate predictions of record-keeping literacy based on the values of investment decisions.



**VIII. Correlation Analysis**

The study further explored the relationship between various parameters of financial literacy and investment decisions among small-scale tea farmers in Bomet County. Additionally, it examined the combined effect of these parameters on investment decisions. Consequently, the results in this section are based on Pearson’s correlation analysis, and the findings are presented in Table 4.13

Table 4.11: Correlations Matrix

		<b>Investment Decision</b>	<b>Saving Literacy</b>	<b>Borrowing Literacy</b>	<b>Budgeting Literacy</b>	<b>Record-Keeping Literacy</b>
Investment Decisions	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	132				
Saving Literacy	Pearson Correlation	.725**	1			
	Sig. (2-tailed)	.000				
	N	132	132			
Borrowing Literacy	Pearson Correlation	.635**	.499**	1		
	Sig. (2-tailed)	.000	.000			
	N	132	132	132		
Budgeting Literacy	Pearson Correlation	.531**	.318**	.360**	1	
	Sig. (2-tailed)	.000	.000	.000		
	N	132	132	132	132	
Record-Keeping Literacy	Pearson Correlation	.760**	.531**	.527**	.484**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	132	132	132	132	132

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

The correlation analysis results in Table 4.13 reveal a strong positive, and significant relationship between saving literacy and investment decisions, as evidenced by a correlation coefficient of 0.725 and a p-value of 0.000. This indicates that tea farmers with a better understanding of saving practices are more likely to make informed investment decisions. Therefore, improved saving literacy empowers them to allocate funds toward investments with greater confidence. Consequently, promoting saving literacy is essential for enabling tea farmers to enhance their investment decision-making

Furthermore, the correlation analysis results indicated a positive and significant relationship between borrowing literacy and investment decisions, reflected in a correlation coefficient of 0.635 and a p-value of 0.000. This shows that as tea

farmers improve their understanding of borrowing practices, their ability to make informed investment decisions also increases. Increased awareness of borrowing empowers farmers to utilize credit more effectively, potentially resulting in more strategic investment choices. Ultimately, enhancing borrowing literacy is essential for equipping farmers to make sound decisions that maximize their investment potential.

The findings indicate a significant relationship between budgeting literacy and investment decisions, as shown by a correlation coefficient of 0.531 and a p-value of 0.000. This implies that improving budgeting literacy can lead to better investment decisions. Therefore, as tea farmers develop their budgeting skills, they are more likely to make informed investment decisions. Lastly, the correlation analysis results showed a strong, positive, and significant relationship ( $r=0.760$ ;  $p=0.000$ ) between record-keeping literacy and investment decisions. It implies that an increase in budgeting literacy contributes to improved investment decisions. As farmers, enhance their record-keeping skills, their ability to make effective investment decisions also improve. Consequently, investing time and effort into developing these skills can lead to more informed investment choices.

**IX. Regression Analysis**

Regression analysis was conducted to establish the relationship between saving literacy, borrowing literacy, budgeting literacy, record keeping literacy and investment decisions. Results are presented in Tables 4.14, 4.15 and 4.16

*Table 4.124: Model Summary*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.877 <sup>a</sup>	.768	.761	.27222

a. Predictors: (Constant), Record-Keeping Literacy, Budgeting Literacy, Saving Literacy, Borrowing Literacy

The results in Table 4.15 shows that the correlation coefficient and coefficient of determination were  $R=0.877$  and  $R^2=0.768$  respectively. This implies that, saving literacy record keeping literacy, budgeting literacy, borrowing literacy explains 76.8% of variation in investment decisions. The result means that investment decisions are affected by the financial literacy.

*Table 4.15: ANOVA<sup>a</sup>*

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	31.225	4	7.806	105.340	.000 <sup>b</sup>
	Residual	9.411	127	.074		
	Total	40.636	131			

a. Dependent Variable: Investment Decisions

b. Predictors: (Constant), Record-Keeping Literacy, Budgeting Literacy, Saving Literacy, Borrowing Literacy

The results in Table 4.15 shows that the F-value ( $F=105.340$ ;  $p=0.000$ ) was significant at 95% confidence level. The result implies that the overall regression model was significant. Therefore, saving literacy record keeping literacy, budgeting literacy, borrowing literacy taken together affected investment decisions.

*Table 4.13: Regression Coefficients<sup>a</sup>*

Model	Unstandardized Coefficients		Standardized	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.205	.150		8.036	.000

Saving Literacy	.262	.037	.378	7.133	.000
Borrowing Literacy	.120	.034	.187	3.514	.001
Budgeting Literacy	.111	.035	.158	3.210	.002
Record-Keeping Literacy	.293	.044	.384	6.704	.000

a. Dependent Variable: Investment Decisions

The following regression model guided the study.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon ; \text{ Where:}$$

<b>Y</b>	represents	investment decisions
<b>B<sub>0</sub></b>	represents	Constant
<b>X<sub>1</sub></b>	represents	saving literacy
<b>X<sub>2</sub></b>	represents	borrowing literacy
<b>X<sub>3</sub></b>	represents	budgeting literacy
<b>X<sub>4</sub></b>	represent	record keeping literacy
<b>ε</b>	represents	Error term
<b>β<sub>1</sub>, β<sub>2</sub>, β<sub>3</sub>, β<sub>4</sub></b>	represent	Régressions Coefficients of Independent Variables.

The model as interpreted as  $Y = 1.205 + 0.262X_1 + 0.120X_2 + 0.111X_3 + 0.293X_4 + \varepsilon$

The regression model highlights how different types of financial literacy affect investment decisions. According to the findings, one unit increase in saving literacy lead to a 0.262-unit increase in investment decisions. Borrowing literacy has a beta coefficient of 0.120, indicating that a one-unit change in borrowing literacy results in a 0.120 unit change in investment decisions. Similarly, a one-unit change in budgeting literacy contributes to a 0.111 unit change in investment decisions, while record-keeping literacy results in a 0.293 unit change. These results suggest that investment decisions can be predicted based on changes in saving literacy, borrowing literacy, budgeting literacy, and record-keeping literacy.

### **X. Conclusions of the study**

Saving literacy is crucial for fostering disciplined saving habits, which in turn enhances the ability of small-scale farmers to make informed and strategic investment decisions. Without adequate saving literacy, farmers struggle to build the capital necessary for investments, limiting their economic growth. Farmers lacking in saving literacy may struggle with capital accumulation, limiting their investment potential. Borrowing literacy is essential for enabling farmers to access and manage credit effectively, which can significantly enhance their investment capacity. Without sufficient borrowing literacy, farmers may either avoid beneficial credit opportunities or fall into debt traps, hindering their ability to make profitable investments. Insufficient borrowing literacy can lead to missed opportunities or debt mismanagement, impacting investment outcomes. Budgeting literacy is crucial for small-scale farmers as it allows them to allocate resources efficiently and plan for both short-term needs and long-term investment goals. Farmers with poor budgeting skills are likely to face financial shortfalls that can disrupt their investment plans and overall economic stability. Poor budgeting skills can lead to financial shortfalls and disrupt investment plans. Record-keeping literacy is essential for informed decision-making in investments. Without proper records, farmers are unable to accurately assess their financial health, which can lead to poor investment choices and financial instability. Lack of record-keeping leads to financial mismanagement and less optimal investment choices.

## **Recommendations**

Based on the findings of this study, small-scale tea farmers in Bomet County are encouraged to enhance their financial literacy in key areas such as saving, borrowing, budgeting, and record-keeping. Improving these competencies will empower farmers to make informed investment decisions, ultimately leading to increased productivity and profitability.

First and foremost, farmers should prioritize enhancing their saving literacy. Understanding the various saving options available, such as utilizing SACCOs or microfinance institutions, is essential. By establishing a habit of saving a fixed percentage of their income regularly, farmers can create a safety net for future investments. Differentiating between short-term savings for immediate operational needs and long-term savings for future capital investments will enable them to allocate resources more effectively. This disciplined approach to saving will help secure the funds necessary for strategic investments in farm inputs, equipment, or diversification.

Moreover, improving borrowing literacy is crucial for making sound financial decisions. Small-scale tea farmers should seek to deepen their understanding of borrowing terms, interest rates, and repayment schedules. By equipping themselves with this knowledge, farmers can make informed choices regarding loans, enabling them to assess the risks, fees, and benefits associated with various borrowing options. Being well-informed about credit management will help farmers utilize loans responsibly, allowing them to invest in farm improvements and grow their businesses with minimal financial risk.

Strengthening budgeting literacy is another vital area for consideration. Farmers who develop robust budgeting skills will be better equipped to plan their finances, allocate resources efficiently, and ensure they have sufficient funds for both day-to-day operations and investment opportunities. A structured budget serves as a roadmap for managing finances, helping farmers anticipate and mitigate potential financial shortfalls. Training programs focused on effective budgeting strategies can significantly benefit farmers by enhancing their ability to track income, expenses, and profits.

Additionally, record-keeping literacy is essential for making informed investment decisions. Maintaining accurate and up-to-date records of financial transactions enables farmers to assess their financial health and identify profitable investment opportunities. Good record-keeping practices help farmers monitor income and expenses, manage debt levels, and evaluate the success of previous investments. By committing to detailed record-keeping, farmers can avoid financial mismanagement and make data-driven choices that positively impact their investment outcomes.

## **REFERENCE**

- [1] Abdullah, M., Fazli, M., & Muhammad Arif, M. (2019). The relationship between financial knowledge, debt management, money attitudes, and the financial welfare of young employees. *International Journal of Financial Studies*, 7(2), 45-60. <https://doi.org/10.3390/ijfs7020045>
- [2] Abebe, G., & Tsegaye, E. (2021). Financial knowledge and investment decision-making among smallholder coffee farmers in Ethiopia. *Ethiopian Journal of Financial Management and Policy*, 3(3), 120-137.
- [3] Aboluwodi, D., & Nomlala, B. (2020). Investment literacy of university students in South Africa. *Acta Universitatis Danubius. Œconomica*, 16(1).
- [4] Adamu, B., & Oladipo, G. (2020). The role of financial literacy in agricultural investment decisions among rice farmers in Nigeria. *Journal of Sustainable Agricultural Development*, 12(3), 89-106.
- [5] Adetunji, E. O. (2021). Financial literacy skills and survival of small and medium enterprises in Osun State, Nigeria (Doctoral dissertation).
- [6] Agarwal, S., & Mannil, N. (2023). Household financial decision making. In *Handbook of Financial Decision Making* (pp. 375-410). Edward Elgar Publishing.
- [7] Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211.
- [8] Alhassan, A., & Musah, M. (2020). Record-keeping literacy and financial transparency. *Journal of Accounting and Finance*, 12(3), 45-60.
- [9] Altman, D. (2020). The effects of financial literacy on credit card usage. *Journal of Financial Education*, 18(2), 88-104.
- [10] Ameliawati, M., & Setiyani, R. (2018). The influence of financial attitude, financial socialization, and financial experience on financial management behavior with financial literacy as the mediation variable. *KnE Social Sciences*, 811-832.

- [11] Artavanis, N., & Karra, T. (2021). Financial literacy and student debt: Evidence from a large public university. *Journal of Financial Education*, 47(2), 123-145.
- [12] Atkinson, A., & Messy, F. (2019). *Financial education for long-term savings behavior*. OECD Publishing.
- [13] Bandura, A. (1977). *Social Learning Theory*. Englewood Cliffs, NJ: Prentice Hall.
- [14] Bandura, A., & Ross, S. A. (1961). Transmission of aggression through the imitation of aggressive models. *Journal of Abnormal and Social Psychology*.
- [15] Barr, M. J., & McClellan, G. S. (2018). *Budgets and financial management in higher education*. John Wiley & Sons.
- [16] Blanco, A., de Lara Resende, J., Visser, M., & Winter, J. (2020). Budgeting literacy and retirement planning. *Journal of Pension Economics and Finance*, 19(3), 321-337.
- [17] Blumberg, B., Cooper, D. R., & Schindler, P. S. (2014). *Business research methods*. McGraw Hill.
- [18] Brown, M., Grigsby, J., van der Klaauw, W., Wen, J., & Zafar, B. (2019). Borrowing literacy and student loan management. *Journal of Banking & Finance*, 106, 124-138.
- [19] Chege, P., & Bett, J. (2022). Record-keeping literacy and agricultural productivity. *International Journal of Agricultural Economics*, 47(4), 219-232.
- [20] Chepkemoi, L., & Mutai, K. (2021). Financial literacy and its influence on investment decisions among tea farmers in Kericho County, Kenya. *East African Journal of Agricultural Economics*, 7(2), 140-157.
- [21] Chisanga, J., & Mwale, M. (2021). The impact of financial literacy on investment behavior of smallholder maize farmers in Zambia. *African Journal of Economic Studies*, 8(1), 78-95.
- [22] Choi, B., & Pak, A. (2023). Achieving high survey response rates: Best practices in educational research. *Journal of Educational Research and Practice*, 13(4), 215-230.
- [23] Cibangala, P. B. (2019). Education Financière des ménages: développement et validation d'une échelle de mesure. *Infirmité, Science, Entrepreneur, Applied Art, Research, Humanism*, 16(2).
- [24] Cupak, A., Kolev, G., & Brokesova, Z. (2019). Financial literacy and its impact on savings behavior. *Journal of Financial Counseling and Planning*, 30(2), 226-236.
- [25] Drever, A. I., Odders-White, E., Kalish, C. W., Else-Quest, N. M., Hoagland, E. M., & Nelms, E. N. (2018). The role of budgeting literacy in financial education for children. *Journal of Consumer Affairs*, 52(2), 344-363.
- [26] Farrell, L., Fry, T. R., & Risse, L. (2022). Financial literacy, digital savings platforms, and savings behavior. *Journal of Financial Services Marketing*, 27(1), 45-60.
- [27] Gikonyo, C. S. (2018). *Employee engagement and performance of research and training state corporations in Kenya*. (Unpublished Thesis).
- [28] Goyal, S., Pandey, P., & Raghuvanshi, N. (2019). Financial education and investment decisions: Insights for young professionals. *Journal of Economic Behavior & Organization*, 160, 301-314.
- [29] Gravetter, R., & Forzano, S. (2003). *Research Methods for Behavioral Sciences*. Belmont: Wadsworth.
- [30] Gweyi, M. O. (2018). *Influence of financial risk on financial performance of deposit-taking savings and credit co-operatives societies in Kenya*. (Unpublished Thesis).
- [31] Humaidi, A., Khoirudin, M., Adinda, N., & Kautsar, I. (2020). The effect of financial technology, demographics, and financial literacy on financial decision-making among the productive age population in Surabaya. *Journal of Financial Technology*, 5(2), 78-92. <https://doi.org/10.1234/jft.2020.56789>
- [32] Kamau, J. M. (2024). *Financial literacy and agricultural investment decisions among small-scale farmers in Nyeri County*. Nairobi: Dedan Kimathi University of Technology.
- [33] Kamya, A., & Namutebi, M. (2020). Financial literacy and investment decisions among coffee farmers in Uganda. *Journal of Agricultural Economics*, 11(3), 200-215. <https://doi.org/10.1234/jae.2020.45678>
- [34] Karanja, G. N. (2022). *The impact of financial literacy on real estate investment decisions in Kiambu County*. Kiambu: Kenyatta University.
- [35] Kenya, R. (2019). *Kenya population and housing census*.
- [36] Kinatader, M., & Ronchi, E. (2019). Letter to the editor: Burning down the silos in a multidisciplinary field. Towards unified quality criteria in human behavior in fire. *Fire Technology*, 55(6), 1931-1935.
- [37] King'ondou, J. K. (2020). *Assessing the effect of financial literacy on personal investment decisions of secondary school teachers under Teachers Service Commission in Machakos Sub County*. (Doctoral dissertation).
- [38] Klapper, L., & Lusardi, A. (2020). Financial literacy and its role in financial decision-making: Evidence from around the world. *Journal of Financial Economics*, 130(3), 564-584. <https://doi.org/10.1016/j.jfineco.2018.10.00>
- [39] Kyoungtaekim, J., & Hanna, S. D. (2019). The effects of financial literacy overconfidence on the mortgage delinquency of US households.

- [40] Lumby, S., & Jones, C. M. (2011). *Corporate finance: Theory and practice*. John Wiley & Sons.
- [41] Lusardi, A., & Mitchell, O. S. (2018). Financial literacy and retirement planning. *The Journal of Retirement*, 6(1), 107-114.
- [42] Mamani, P. G. R., Carranza-Esteban, R. F., Luque-Bonet, E. A., & White, M. (2019). Contributions to the study of validity and reliability of a nutrition knowledge questionnaire in an adult student population. *Journal of Nutrition Education and Behavior*, 51(3), 385-386.
- [43] Mandala, R. (2018). *The effect of employee motivation on the attainment of the organisation goals: The case of Malawi Adventist University*. (Doctoral dissertation, Adventist University of Africa, School of Postgraduate Studies).
- [44] Mbukanma, F. C., & Dube, M. (2021). Effects of financial literacy on investment decisions among traders in Mzuzu, Malawi. *Journal of International Business*, 5(3), 134-148.
- [45] Mgbere, O. O., & Ughasoro, E. (2021). The impact of financial literacy on investment decisions among smallholder farmers in Nigeria. *African Journal of Business Management*, 15(9), 378-385.
- [46] Michalak, M., & Wozniak, M. (2022). The role of financial literacy in shaping consumer behavior in the 21st century. *Journal of Consumer Studies*, 46(2), 98-117.
- [47] Mwangi, J. N. (2020). *Financial literacy and its influence on investment decisions among youth in Kajiado County, Kenya*. (Doctoral dissertation, Kenyatta University).
- [48] Mwangi, R., & Obura, H. (2019). Financial literacy and its influence on investment decisions among smallholder farmers in Nyeri County. *African Journal of Agriculture*, 12(4), 112-124.
- [49] Nakpodia, F. (2020). Effects of financial literacy on investment decision of smallholder farmers in Nigeria. *International Journal of Finance and Accounting*, 5(4), 305-318.
- [50] Namusonge, G. S., & Amuhaya, M. (2020). Effect of financial literacy on investment decisions among women in Kakamega County. *Journal of Business and Management*, 22(5), 48-58.
- [51] Ndundu, G. N., & Nyanjau, G. (2019). Effects of financial literacy on financial decision-making among agricultural smallholders in Kenya. *African Journal of Rural Development*, 4(2), 57-64.
- [52] Nwankwo, E. C., & Chukwudozie, A. (2020). Financial literacy and savings behavior among entrepreneurs in Enugu State, Nigeria. *International Journal of Economics and Financial Research*, 6(1), 35-43.
- [53] Okwori, I. J. (2020). Financial literacy and savings mobilization among microfinance banks in Nigeria. *International Journal of Economics, Business and Management Research*, 4(6), 122-132.
- [54] Ormston, R., Spencer, L., Barnett, A., & B. (2020). The importance of qualitative research in understanding consumer behavior. *Journal of Consumer Research*, 47(4), 221-230.
- [55] Otieno, B. (2019). *Financial literacy and personal savings behavior among university students in Kenya*. (Doctoral dissertation, University of Nairobi).
- [56] Rind, S. K., & Abrahams, M. (2021). Financial literacy and investment decisions: A comparative analysis of millennials in South Africa and Kenya. *African Journal of Economic and Management Studies*, 12(3), 314-329.
- [57] Rockey, R. S., & Hemsley, J. (2020). Financial literacy and investment decisions in micro and small enterprises in Kenya. *International Journal of Accounting and Financial Management Research*, 6(1), 65-80.
- [58] Roos, S. (2021). Impact of financial literacy on sustainable investment decisions. *Journal of Sustainable Finance & Investment*, 11(2), 133-147.
- [59] Stango, V., & Zinman, J. (2021). Exponential growth and the impact of financial literacy on credit behavior: Evidence from a natural experiment. *American Economic Journal: Applied Economics*, 13(3), 45-71.
- [60] Taraba, D., & Musbahu, M. (2022). Financial literacy and investment decisions among smallholder farmers in Nigeria. *Journal of Financial Literacy*, 6(1), 25-38.
- [61] Uddin, M. A., & Ghosh, P. (2020). Impact of financial literacy on financial management practices of small and medium enterprises. *Journal of Entrepreneurship Education*, 23(2), 55-68.
- [62] Ugochukwu, R. U., & Chijioke, C. (2021). Financial literacy and investment decisions: A study of small-scale entrepreneurs in Nigeria. *African Journal of Business Management*, 15(4), 124-132.
- [63] Ukpere, W. I., & Ibhado, A. (2019). Financial literacy and small and medium enterprises performance in Nigeria. *International Journal of Small Business and Entrepreneurship Research*, 7(1), 45-60.
- [64] Van Rooij, M., Lusardi, A., & Alessie, R. (2020). Financial literacy and stock market participation. *Journal of Financial Economics*, 105(2), 249-266.
- [65] Waweru, S. W., & Rono, E. (2021). The role of financial literacy in enhancing the investment decisions of smallholder farmers in Kenya. *International Journal of Financial Management*, 6(2), 21-30.

- [66] Wambugu, J., & Njeru, E. (2021). *Factors influencing investment decisions among small-scale tea farmers in Kenya*. Journal of Agricultural Economics and Rural Development, 5(2), 123-136
- [67] Xu, L., & Zia, B. (2020). Financial literacy around the world: An overview of the evidence with practical suggestions for the way forward. World Bank Research Observer, 25(1), 1-29.