THE EFFECT OF FINANCIAL LITERACY ON THE PERFORMANCE OF SMALL-SCALE TEA FARMERS IN KERICHO COUNTY

By

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DECLARATION

I declare that this dissertation is my original work and has not been previously published or submitted elsewhere for award of a master's degree. I also declare that this contains no material written or published by other people except where due reference is made and author duly acknowledged.

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I do hereby confirm that I have examined this master's dissertation of

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And have certified that all the revision and examiners recommendations have been adequately addressed.

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ABSTRACT

The study focused on the effect of financial literacy on the performance of small-scale tea farmers in Kericho County, Kenya. Financial literacy equips individuals with the knowledge and skills necessary to make informed financial decisions. It entails understanding and applying fundamental concepts of personal finance, including budgeting, saving, investing, and debt management. Financial education further provides tools for effective credit management, enabling individuals to reduce debt through responsible credit use. A solid grasp of financial principles enhances one's capacity to make sound financial choices, thereby promoting long-term economic stability. The study was guided by the following objectives: to assess the effect of budgeting skills on the financial performance of small-scale tea farmers in Kericho County, to evaluate the effect of savings skills on the financial performance of small-scale tea farmers in Kericho County, to determine the effect of investment skills on the financial performance of small-scale tea farmers in Kericho County, and to analyze the effect of debt management skills on the financial performance of small-scale tea farmers in Kericho County. The financial performance and budgeting skills of farmers can be explained through several theoretical frameworks. The Theory of Planned Behavior suggests that farmers' intentions toward financial planning directly influence their budgeting outcomes. The Life Cycle Hypothesis explains how farmers accumulate and deplete savings to maintain long-term financial stability. The Capital Asset Pricing Model provides a basis for assessing risk and identifying profitable investment opportunities. Additionally, the Pecking Order Theory clarifies farmers' preference for specific debt-financing choices aimed at minimizing financial risk exposure. Methodologically, questionnaires with small-scale tea farmers were distributed to gather primary data. The study targeted small scale farmers in Kericho County spread across all sub-counties and a sample size of 348 to apply questionnaires as their primary research tool. The quantitative data were analyzed using Statistical Package for Social Sciences (SPSS) version 22.0, and the study used descriptive and correlational research design and multiple regressions to establish links between independent and dependent variables. The study examined the impact of financial literacy on the performance of small-scale tea farmers in Kericho County. The results showed that savings skills, investment skills, and debt management skills had a significant positive effect on farmers' financial performance, while budgeting skills did not show a statistically significant impact. The regression analysis revealed that skills related to saving, investing, and managing debt are crucial in improving financial outcomes for tea farmers. Based on the findings, it was concluded that enhancing financial literacy is key to boosting the financial success of small-scale tea farmers. Recommendations were made to increase financial literacy through targeted training programs and policy interventions. The study acknowledged limitations such as the sample size and geographic focus on Kericho County, suggesting that future research could expand to other tea-growing regions or consider external factors like market volatility and government policies. These areas could provide further insights into improving the financial resilience of small-scale tea farmers.

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ACRONYMS AND ABBREVIATIONS

AC : Coordination of Activities

BC : Controlling Cash Flows

BP : Planning Cash Flows

BRA : Resource Allocation

CAPM : Capital Asset Pricing Model

CBD : Central Business District

CLRM : Classical Linear Regression Model

EPS : Earnings per Share

KTDA : Kenya Tea Development Agency

LR : Likelihood Ratio

MFP : Monitoring of Financial Position

NGOs : Non-Governmental Organizations

ROA : Return on Assets

ROI : Return on Investment

SDGs : Sustainable Development Goals

SMEs : Small and Medium Enterprises

TPB : Theory of Planned Behavior

TRA : Theory of Reasoned Action

OPERATIONAL DEFINITION OF TERMS

Budgeting Skills: Budgeting skills is referred as systematic approach to making plans, controlling and monitoring on use of financial resources to accomplish the financial objectives. It involves cash flow forecasting, expenditure tracking, setting of financial goal, this ensures that resource is well used and financial stability (Atrill & McLaney, 2020).

Debt Management Skills: Debt management skills are the ways to use of financial obligations and the 'payment' for the debts, according to the timetable that minimizes the costs of interest. Budgeting for debt repayment, learning how to understand loan terms, and where to place your priority for what debts to pay first would be these skills. (OECD, 2020).

Financial Performance: The financial performance of a firm is known as a financial health and efficiency of the firm in terms of such indicators as profitability, return on investment (ROI), return on assets (ROA) and revenue growth. It is the firm's ability to generate earnings in relation to its expenses and assets in a given period of time. (Brigham & Ehrhardt, 2021).

Investment Skills: Investment skills include the knowledge and ability of allocating financial resources as efficiently as possible into different investment alternatives, and particularly stocks, to produce the greatest returns and to mitigate the risk. Good investment skills let people and businesses grow wealth. (Bodie, Kane, & Marcus, 2019).

Small-Scale Tea Farmers: Small-scale tea farmers are small scale tea farmers who produce tea on land plots under five hectares mostly depending on family labour and

agricultural cooperative assistance in processing and marketing tea. And here, these farmers play an important role in the tea value chain, particularly in countries such as Kenya where the tea is supported by Kenya Tea Development Agency (KTDA). (Kamau et al., 2018).

Savings Skills: The skills of savings are skills to gather part of the income for the purpose of the future, in order to provide a financial security or security. The skills around these entail budgeting, expense management and disciplined financial planning to save, fund and pay for any emergency or investment for future consumption. (Lusardi & Mitchell, 2017).

CHAPTER ONE

INTRODUCTION

1.1. Background Information

Financial literacy encompasses the effective management of both personal and business finances, with financial education providing the foundation for this knowledge (Gonzalez-Prida et al., 2025). While definitions vary, the core understanding emphasizes informed decision-making. In the agricultural context, financial literacy entails knowledge of money management, budgeting, savings, investing, debt, and risk management (Lusardi & Mitchell, 2014). It also involves prudent use of financial tools, such as checking accounts and credit cards, while avoiding excessive debt. A financially literate farmer strategically manages resources to achieve personal, family, and farm-related goals (Rehman & Mia, 2024). Beyond agriculture, financial literacy is essential for budgeting, funding education, purchasing a home, and retirement planning, making it a critical determinant of daily financial well-being.

Tea is the second beverage in popularity worldwide after water; yet African tea workers and farmers face low wages, market volatility, and poor living conditions. Tea estate workers work long hours for low earnings and need estate owners for food, health, and education (Bermúdez et al., 2024). Fairtrade accreditation tackles tea industry issues by setting minimum pricing and premium funding for farming, community development, and worker wellbeing. Small farmers operate small farms, but tea estate laborers work long hours, earn poor wages, and depend on estate management for housing, healthcare, and education (Van der Wal, 2008). Fairtrade accreditation provides a safety net for agricultural, community services, and worker welfare with its minimum price and premium. In 2020, Fairtrade premiums reached 390,400 farmers and workers, improving community services and livelihoods (KIPPRA & ACBF, 2017).

The production practices of tea farmers encounter three types of risk which diminish their crop yields and monetary returns: weather risks alongside market and external conditions. Farm management strategy of tea farmers relies heavily on risk management according to Nyaiyo et al. (2021). The risk management approach of tea growers includes implementing on-farm adaptations together with financial instruments along with strategic government programs. Markets join forces with governments and independent farmers to build up tea business operations (FAO, 2015). Sustainable farming requires market restrictions but equal protection for farm-related risk reduction and market strategy sustainability (Demeke et al., 2016). Tea growers need strategic business plan transformation for safe operations, steady production, and financial health. Tea is the second most widely consumed and affordable beverage globally, playing a significant role in international trade. According to Hicks (2009), global tea production rivals that of coffee, chocolate, soft drinks, and alcohol. Kenyan tea is the highest-quality worldwide, whereas China and India lead production disparities. Unilever Tea is the third largest tea producer in the world and Kenya sells the most tea in Africa (Prathibhani et al., 2018). Kenya's main cash crop and foreign currency generator needs affordable finance services to reach small farmers who grow most tea plantations quickly (Dufrene 2022). Financial institutions ignore rural value chains and agricultural enterprises because they focus on urban and peri-urban areas.

Through their production of 60% of global tea farmers support rural economic sustainability by playing a critical economic role in areas where women play a substantial role (Katungwe et al., 2017). The tea farmers encounter multiple obstacles which include minimal crop value along with restricted financing options and deficient agricultural guidance and inadequate market relationships (CPDA, 2008). The barriers to success require innovative financial investments from both public and private sectors to ensure sustainability (Katungwe et

al, 2017). The United States restricts its tea farming activity to gardens in South Carolina and Hawaii and agricultural fields in Alabama along with Washington and Oregon. Farmers in the U.S. need financial competence to control their loans and insurance coverage and investments so they can enhance market stability (DeVault, 2024). The Cooperative Extension Service teaches farmers vital financial capabilities and promotes better production methods while strengthening their market execution (Kopiyawattage et al., 2016).

China, India, and Sri Lanka depend on tea growing for economic growth. India is the world's second-largest tea producer and third-largest exporter, using small-scale farmers to produce 4 million tonnes of its 6 million tons yearly production (Subba et al., 2024). Traditional tea farming by 36,559 smallholder farmers in Darjeeling supports the local economy (Banerjee & Tyagi, 2024). The environment, financial constraints, commodity prices, and transportation networks all challenge small-scale farmers (Deka & Goswami, 2022; Ng'ang'a, 2015). Darjeeling tea farming needs investment that balances environmental sustainability, social welfare, and economic growth. Sri Lanka, Kenya, and India produce tea through smallholder farming groups but have similar operational issues (Mahindapala, 2020; Samaraweera, 2019). From 2001 to 2010, Chinese, Vietnamese, and Kenyan smallholders expanded their tea farming exponentially (Mahindapala, 2020; Samaraweera, 2019).

Cameroonian mixed-agriculture tea farmers struggle since their productivity is lower than Uganda and Kenya. According to Ng'ang'a (2015) and Muzira et al. (2023), Côte d'Ivoire farmers manufacture tea from Lippia multiflora, a medicinal and nutritional plant. Female workers traditionally process Lippia leaves (Shackleton et al., 2009). Kenya, Uganda, Rwanda, and their neighbors face environmental changes, pest infestations, diseases, and market volatility in the East African tea farming business (Atieno, 2020 and Oluoko, 2016). Strategic investment should

improve smallholder programs and processing centers (Galal, 2024). Due of low yields and climatic circumstances, Tanzania's small farmers need little help. IAEA drip irrigation and Mufindi Out-Growers initiatives provide better financial support to increase crop production and water usage, which enhances living conditions. Expanding such support programs would boost manufacturing and exports.

Over 80,000 Ugandan families support smallholder tea farming in East Africa (Munyambonera et al., 2014). Tea production struggles with low efficiency, high costs, and dwindling international market possibilities. Inefficiencies caused by lack of decision-making authority lead to labor unrest (Muzira et al., 2024). National governments, farmland groups, development organisations, and private firms must work together to manage resources sustainably (Tinsley & Agapitova, 2018). According to Wood Foundation (2022), Mulindi Tea invested $15 million to improve manufacturing performance and farmer profits. Rwandan smallholder farmers produce a lot of tea. The facility increased output and financial performance by training over 5000 farmers in tea management and operates under community ownership for sustainable growth and returns (Ntirenganya, 2022).

Tea production plays a vital role in Zimbabwe’s economy, with smallholder farmers in the Eastern Highlands and Honde Valley making significant contributions (Mudyazvivi, 2011). The Honde Valley Tea Growers Association, comprising 1,200 members, processes black and herbal tea, supporting exports of 13,000 tonnes valued at $18.2 million in 2022 (Dube & Guveya, 2014). To enhance market access, ZimTrade’s export development program trains tea producers in marketing and branding, targeting regional markets such as South Africa, Mozambique, and Zambia, as well as Europe (Emendo Consulting Group, 2024). Financial literacy training further enables farmers and retailers to manage loans, investments, and

expenditures, thereby improving output quality and international competitiveness. Similarly, in Burundi, over 50,000 smallholders supply tea to the Office du Thé du Burundi through collaboration with the Ethical Tea Partnership (n.d.), although challenges such as fertilizer shortages and fluctuating prices persist. Financial education and the adoption of modern agricultural practices remain critical in improving productivity and farmer incomes (Nyatete Kenyanya & Ndegwa, 2024).

Kenya is the world's top black tea exporter with 500,000 smallholder farmers (Nyatete Kenyanya & Ndegwa, 2024). Due to the bulk processing system controlled by major factories, small-scale farmers earn less relative to retail prices (Salami et al., 2010). Even though volcanic soil and an equatorial temperature zone help Kenyan farmers grow crops, uncertain climate, growing production costs, and changeable market pricing are important challenges. The independent, artisanal processing methods taught to farmers have increased their income and quality of life. Financial literacy initiatives teaches how to use loans and resources sustainably, which boosts farmers' profitability and economic growth (Nafula et al., 2023). Financial education must therefore be linked to agricultural skills in Kericho County to create sustainable growth and competitive advantage.

Kericho County is Kenya's top tea producer and relies on small-scale tea growing. Complex weather patterns, shifting worldwide tea markets, and growing production expenses affect farmer profitability (Milder et al., 2015). Financial literacy helps small-scale tea growers overcome challenges and improve performance (Kariuki et al., 2022). Farmers learn how to manage resources, acquire financing, and invest in sustainable farming through financial education. Financial literacy training has helped farmers increase productivity and profitability (Karuri, 2021). Kericho farmers who learn financial principles can adjust their operations to

market movements and optimize production while maintaining market competitiveness domestically and internationally for economic growth and sustainable lifestyles.

1.1.1 The Concept of Financial Literacy

Financial literacy empowers individuals with the knowledge and skills to make informed financial decisions. Basic financial principles relating to budgeting, along with saving and investing finances alongside proper credit management, can lead to better financial outcomes by teaching avoidance of typical problems (Bai, 2023). People who develop the ability to distribute their funds properly while watching their financial movement and making provisions for unplanned expenses will establish solid financial security through the limitations of their financial resources (Jumady et al., 2024). Financial education gives people tools for credit management, which enables debt reduction through effective credit utilization skills (Lusardi, 2019). Financial literacy provides tools for people to examine various financial products and insurance options and tax planning information that enables proactive choices to build secure economic growth.

Financial literacy not only improves personal financial management but also has far-reaching effects (Lusardi, 2019). Since it instills confidence in such individuals who can make better-informed decisions on things like investing, home renting as well as financial planning, with this knowledge, individuals can actively construct commission revenue, build wealth, secure their financial future, and reduce risk related to uncertainty (Tatad et al., 2024). Also, financial literacy plays a huge role in debt management and prevention with the tools available to reduce liability and avoid high-interest debt (Lang'at & Abdullah, 2019). Also, it ensures that people stay away from scams and fraud, are able to spot deceptive schemes and transactions and are better able to make their financial assets safe.

Understanding financial principles revamps an individual's ability to make wise financial choices that lead to future economic stability. Financial literacy includes multiple key concepts that begin with budgeting as its foundation for directing finances toward spending along with saving and investing toward future objectives (Nguyen et al., 2022). By investing finances into ventures, people obtain returns across periods. Debt management prevents excessive borrowing of funds. People must plan their retirements ahead of time because this basic knowledge, combined with compound interest principles, produces valuable financial growth (Hong Shan et al., 2023). Knowing consumer rights enables people to understand the required financial information disclosures required by law, plus their protection rights during financial dealings (Lusardi & Mitchell, 2014). Financial literacy enables people to navigate away from bad financial choices through strong control of their finances, which leads to independence and sets them up for economic stability well into retirement.

A person needs basic financial competency along with behavioral expertise to make good financial management choices and stay free from financial traps. People with financial literacy achieve better financial outcomes, which include higher income, more savings, and improved financial autonomy. Both organizations and financial institutions find value in employee and stakeholder financial literacy because knowledgeable individuals make better decisions regarding financial opportunities (Hong Shan et al., 2023). Educational pathways to financial literacy should begin during early family-based learning periods before continuing throughout adulthood through reading materials, workshop participation, and classroom training. The implementation of financial education leads to improved financial choices and increased stability, together with enhanced security at both personal and community levels.

Accurate record-keeping and sound financial management are essential in farming due to the sector's complexity. Without proper monitoring of income and expenses, farmers struggle to evaluate performance and make informed decisions (Lusardi, 2019). For example, smallholder sesame farmers in North-West Ethiopia often operate without systematic cost management practices or the analytical skills needed to interpret financial data. This lack of financial visibility between total income and expenditure results in poorly informed management decisions and exposes farmers to avoidable financial risks. Farmers face challenges in obtaining financial institution support because incomplete data combined with unreliable financial documentation reduces their ability to obtain loans (Tatad et al., 2024). Without banking access, farmers need to borrow from informal financial lenders offering exorbitant interest rates. The Counting Better for Larger Benefits through Small Business North Sumatra focuses on teaching farmers to document their operations and profit measurements through a financial capabilities-building initiative.

Tea farmers must develop financial literacy because these skills guide them in handling resources better and increasing their economic success. Tea farmers who learn budgeting alongside saving and debt management skills make better and more productive financial decisions (Kosgei, 2021). Through financial literacy, farmers obtain better skills in managing credit, which enables them to invest financially in farming products to grow their businesses and their yields. The available skills help farmers develop financial goals and draft budgets for resource management as well as practical allocation, which ensure their farms remain sustainable (Chepngenoh & Waruguru, 2024). Farmers benefit from financial knowledge to control risks by reducing stock exposure to environmental factors and market conditions and safeguarding their economic base.

The financial literacy programs delivered by the Kenya Tea Development Agency (KTDA) Foundation serve as fundamental instruments to increase tea farming knowledge among their communities. The KTDA Foundation provides specialized business skill training to smallholder farmers that enable them to make intelligent financial choices (Kenya Tea Development Agency (KTDA, 2024). KTDA Foundation uses gender-sensitive training programs to deliver financial literacy training designed to meet the unique requirements of tea farming women, men, and youth populations within families. Business skills training, personal spending tracking, and financial planning, along with saving strategies and debt management, form essential elements of these educational programs (Nyarangi, 2023). People who develop these skills achieve better economic success while simultaneously improving their family lifestyles and community quality of life.

1.1.2 Performance of Small-Scale Tea Farmers

The tea farming sector in Kericho County exhibited reduced overall harvest levels during July 2024 because of unfavorable weather elements. Weather conditions in Kericho, along with Bomet and areas across parts of the West Rift Valley, defined the month of July as a below-average rainfall and thermally cooler period (Langát, 2022). Crop productivity diminished significantly in these high-tea zones that measured rainfall at less than 63 millimeters per day. Tea production experienced a decrease of 3.87 million kilograms during 2024 because farmers cultivated 40.82 million kilograms in 2024, while in July 2023, they produced 44.69 million kilograms (Nyaiyo & Mamboleo, 2021). The highest point of cool and cloudy conditions during the cold season caused significant production reductions that negatively impacted both estate and smallholder tea growers in the region.

Smallholder tea farmers working under the management of the Kenya Tea Development Agency (KTDA) registered positive results in their performance during this period. Under the management of the Kenya Tea Development Agency, farmers increased their production numbers substantially by achieving 1.38 million kilograms more output, which resulted in total production amounts of 19.57 million kilograms during 2024 after beginning at 18.19 million kilograms in July 2023 (KTDA, 2024). Greenleaf deliveries from smallholder farmers to KTDA factories showed a positive change due to planned shifts where farmers sent more leaves for higher expected earnings. The 2.62 million kilogram drop reported by independent tea farmers stemmed from reduced yields combined with delivery adjustments made by small-scale farmers during the period (Nyarangi, 2023).

The financial performance of small-scale tea farmers depends heavily on budgeting skills because these skills establish defined objectives and proper resource management while monitoring financial developments. Budget controllers need training in order to enhance their ability to identify financial threats while developing effective budget plans (Korir et al., 2021). Through its expanded scope, they can achieve complete management by incorporating financial control alongside financial transactions. By motivating budget controllers to probe financial frameworks in greater depth, the organization can improve its financial decision capabilities (Korir et al., 2021). Effective budgeting tools repeatedly deployed help organizations monitor their financial advances while simultaneously recognizing respective enhancement possibilities (Shamina & Henry, 2024). Budgeting creates goal-supporting frameworks that allow farmers to allocate resources effectively while tracking financial performance and establishing clear paths toward strong financial planning and control, which supports both stability and growth over time.

The financial performance of small-scale tea farmers can improve through investment skills that combine technological innovation with financial literacy programs, insurance provisions, and efficient loan processing mechanisms. Acquiring modern tools for farming raises both economic and operational effectiveness and total outputs, and basic financial understanding lets farmers handle monetary resources with better results (Khan et al., 2024). The availability of insurance creates protection against unforeseen events, which retains long-term business performance while managing financial risks. Faster and more efficient loan processing brings farmers the required capital they need to make investments (Soekarni, 2024). The tea sector's sustainability is directly impacted by world market prices together with interest rates, which determine borrowing costs. Different seasons play a role since the tea production level depends on periodic changes. The analysis of financial data, including ROI and ROA, together with EPS and sales, enables the assessment of sector performance to support future investment choices.

The financial performance of small-scale tea farmers is strongly influenced by effective debt management and risk mitigation strategies. Access to financial services, such as loans from banks, credit agencies, and smallholder support programs, enables farmers to enhance productivity while safeguarding their operations (Mustafa et al., 2011). The ability to repay loans becomes difficult for small-scale tea farmers when their debt levels become excessive or when their agricultural sales perform poorly. Certain governments require farmers to have insurance coverage when they take out specific agricultural loans. Financial stability improves through robust risk management processes that combine borrower credit evaluations with software tools and powerful loan security mechanisms. Numerous structural issues, including weak financial strategies and elevated production expenses alongside additional challenges, disrupt farmers' economic standing unless they have adequate management skills.

Small-scale tea farmers who maintain savings accounts build a dependable financial base that delivers improved investment opportunities. Farmers who maintain savings accounts obtain better access to bank loans because regular savings demonstrate to banks approval candidates for financial aid (Asamoah and Amoah, 2015). A savings account strengthens the attractiveness of a business to investors who might bring additional external financial resources to the table. Farmers who participate in savings programs learn essential financial literacy skills, which include budgeting, goal-setting, and long-term financial planning (International Finance Corporation, 2014). Saved finances in a savings account generate interest, which becomes additional income for farmers. Rainy season fluctuations in cash flow, together with low financial literacy, affect farmers' ability to develop savings consistently.

Small tea farming enterprises within Kericho County battle with decreased harvest production along with restricted funding availability and inferior resource allocation that restricts their operational financial success. These farmers face weak yield outcomes when compared to larger estates because they do not have access to basic farm resources, including fertilizers, seedlings, and irrigation systems (Ekwang, 2021). Access to credit remains limited because many farmers encounter problems with obtaining loans while facing high interest rates and lacking available security. Farm performance faces additional difficulties from insufficient investment in agricultural improvement projects (Dhillon & Moncur, 2023). Small-scale farmers can achieve performance growth through better educational programs and hands-on training in combination with enhanced services for extension and credit facilities. Revised risk management strategies alongside better access to markets enable farmers to create reliable long-term income.

Small-scale tea farmers in Kericho County face numerous challenges that hinder financial success, including low production levels, high labor costs, limited access to credit, and adverse

environmental factors such as erratic weather, plant diseases, and pest infestations. Farmers also contend with shortages of essential inputs such as fertilizers, seedlings, and irrigation systems, which further reduce output and, when combined with rising labor expenses, erode their profit margins. The absence of collateral leads to restricted credit access, which bars farmers from acquiring resources for productivity development. Unpredictable weather patterns, together with pests and diseases, directly affect tea production negatively. Better access to education, along with training and credits and extension assistance services, serve as effective solutions to mitigate those challenges. Controlled by improved risk management knowledge and financial access to credit mechanisms, farmers will boost production effectiveness and establish lasting financial stability in the tea industry.

1.1.3 Kericho County

The farming zones of Kericho County possess excellent conditions for tea cultivation due to have high elevations combined with productive land and a uniform water supply. Kericho Town, together with the Kapsoit area, shows simultaneous success of large-scale plantations and small farmer operations (Milder et al., 2015). Londiani and Kunyak are two important tea-producing sites located within Kipkelion Sub-County. Small-scale tea farmers depend on Bureti Sub-County, which contains Litein and Kapkatet, alongside Ainamoi Sub-County, where Kipchimchim and Cheborge are located. Sosiot, together with Kapsuser in Belgut Sub-County, generates substantial amounts toward the total production. Kericho's position as a worldwide tea leader stems from these Big Player multinational plantations led by Unilever Tea and James Finlay operating in Kapchorua.

Through tea farming operations, Kericho County sustains a vital economic backbone and provides numerous employment opportunities in both direct and indirect ways. Through its

perfect environmental conditions and productive soils at elevated elevations, Kericho has built a worldwide leadership position in tea cultivation, and its four core farming centers include Cheborge and Soin as well as Londiani and Buret. Climate variations such as droughts and hailstorms, together with frost, affect tea yields to a major extent in the area. Smallholder farmers remain highly exposed because climate changes lead to lower earnings that drive numerous farmers into growing different crops and pursuing secondary income sources to feed their households.

Kericho County tea farmers confront multiple climate change challenges that extend throughout agricultural sectors and educational systems while threatening food stability and community sustainability. The decline in tea production creates financial constraints that prevent farmers from buying essential inputs, thereby blocking their possibilities for farm investments and school funding (Biwott, 2022). Families struggling financially because of these conditions have forced students to drop out of school while also encouraging some girls to enter into marriage. Declining household incomes often lead to dietary changes that contribute to child malnutrition, as inadequate diets fail to supply essential nutrients. These challenges underscore the need for sustainable agricultural practices, crop diversification, and strengthened agricultural extension services to better support farmers (Mong'o et al., 2024). The long-term sustainability of tea farming in Kericho County can be secured through support for agroforestry along with reforestation and different income generation strategies.

Kericho County tea farmers gain substantial economic stability through their financial understanding to become resilient against price fluctuations and climate change. Small tea farmers mostly lack formal financial education opportunities; thus, they become susceptible to monetary exploitation from intermediaries while making bad investment choices (Kipkogei et

al., 2024). The lack of knowledge about budgeting, saving, and investment prevents farmers from achieving maximum profits while developing dual revenue streams. Farmers who concentrate on tea cash crops demonstrate heightened exposure to market and environmental threats because they neglect potential complementary sources of revenue (Dawson et al., 2016). The delivery financial literacy that meets farmers' requirements will enable them to regulate their monetary resources more effectively, grow their savings, and invest in environmentally friendly agricultural skills.

The educational development of financial competencies by tea farmers in Kericho County holds enormous potential to strengthen their economic state together with local growth initiatives. Educating farmers about credit management alongside insurance options and market dynamics allows them to make better decisions, which both increase their profits and minimize their risks (IDH, 2010). Learning record-keeping methods together with affordable credit options would assist farmers in monitoring expenses and building their farm investments, and create financial protection against unpredicted loss. Governments, together with cooperatives and organizations, need to deliver specialized financial education programs that incorporate various complementary support services (Kosgei, 2021). Tea farmers who acquire financial literacy alongside sustainable farming skills are better positioned to diversify income streams, thereby strengthening household economic stability and contributing to the broader development of Kericho County.

A study of Kericho County farmers enables better comprehension of their tea agriculture market position and their existing economic landscape. This data evaluation system defines the unmet financial knowledge requirements while documenting resource accessibility problems and climate alterations affecting farm yields. The study of farmers' skills will allow us to develop

specific solutions to enhance financial management for farmers, promote sustainable farming methods, and create better market connections and credit access. In conclusion, the mission is to give farmers tools that they can use to maximize their agricultural output, build diverse revenue, and achieve lasting economic prosperity. This analytical approach can drive policymakers to develop food security programs, poverty reduction strategies, and economic expansion policies that benefit Kericho County residents and Kenya's agricultural industry as a whole.

1.2. Statement of the Problem

Small-scale tea farmers require financial expertise to engage in effective financial planning, including resource management, funding allocation, asset acquisition, and debt management. However, according to the Central Bank of Kenya (2022), only 45% of rural households demonstrate financial literacy, while the remaining 55% lack essential skills such as budgeting, saving, and investment management. With this knowledge, they can best use their resources to reduce or manage expenses and produce optimal financial outcomes (Ulukan et al., 2022). Financial literacy enables farmers to access financial services and understand loan terms, allowing them to negotiate more effectively with market stakeholders (Liu et al., 2024). By making informed decisions, farmers can enhance productivity, achieve greater economic stability, and promote sustainable livelihoods (Food and Agriculture Organization of the United Nations, 2015). Moreover, financially literate farmers are better equipped to manage market uncertainties, ensuring steady income growth and improved competitiveness within the agricultural sector.

In Kericho County, tea farming is a pivotal economic activity, with small-scale farmers contributing significantly to the region's tea production. The Kenya Tea Development Agency (KTDA) oversees 66 tea factories serving over 500,000 small-scale farmers who collectively

cultivate more than 100,000 hectares, accounting for over 60% of Kenya's tea output (The UK Loose Leaf Tea Company, 2025). Despite their substantial role in the tea industry, many small-scale farmers in Kericho County face challenges related to financial literacy. Limited understanding of financial management principles can lead to suboptimal financial decisions. This deficiency often results in inadequate capital allocation, increased debt burdens, and missed opportunities for growth and profitability (Mobegi et al., 2023). The impact of limited financial literacy is evident in several areas among them Access to Credit, Investment Decisions and lack of proper Risk Management strategies. Without proper financial literacy, farmers are less equipped to implement effective risk mitigation strategies, making them vulnerable to market fluctuations and unforeseen expenses.

The small-scale tea farmers within Kericho County experience fundamental obstacles because they have a poor understanding of financial management principles. Many farmers experience difficulties managing records and costs alongside evaluating financial dangers because this leads to operational disorders and monetary losses (Micah et al., 2022). The ability to access credit proves difficult for individuals who do not have a sufficient understanding of official financial procedures. Lack of financial planning renders farmers at risk of unpredictable economic disruptions, volatile tea market prices, and unpredictable weather patterns (Ncube, 2020). The Kenya National Bureau of Statistics (2021) study shows that more than 60% of small scale farmers in the Kericho County are not ready to deal with price changes and external shocks because there is no adequate financial planning. The region's tea industry suffers from both individual development limitations and diminished overall economic performance due to the limited financial readiness of industry professionals.

Small-scale farmers often face challenges with financial literacy, particularly in maintaining accurate accounting records, and inadequate financial management frequently results in poor financial outcomes (Diba et al., 2023). A lack of financial literacy in business is reflected in weak budgeting practices, limited skills in managing savings accounts, ineffective debt and risk management, and inadequate investment planning (Nkwinika & Akinola, 2023). While some small businesses without formal financial education achieve success, others with extensive training still fail, raising questions about the actual impact of financial literacy programs. Existing literature has largely emphasized the role of financial literacy in shaping personal financial habits and household financial engagement (Ibitomi et al., 2024). This study therefore examines whether conventional financial literacy education influences the financial performance of small-scale enterprises in Kericho County.

Despite the critical role of financial literacy in agricultural productivity, limited research has focused on its specific impact on the performance of small-scale tea farmers in Kericho County. Existing studies often generalize findings, overlooking the unique challenges and opportunities within this sector. This study aims to address this gap by investigating how financial literacy influences decision-making, access to credit, and farm productivity among tea farmers. The findings provide valuable insights for policymakers, financial institutions, and agricultural stakeholders, highlighting actionable strategies to enhance farmers' financial skills. Ultimately, this study contributes to improving the livelihoods of tea farmers, ensuring sustainable growth for the tea industry in Kericho County.

1.3 Research Objectives

The study's general objective is to determine the effect of financial literacy on the performance of small-scale tea farmers in Kericho County.

1.3.1 Specific Objectives

i. To assess the effect of budgeting skills on the financial performance of small-scale tea farmers in Kericho County.

ii. To evaluate the effect of savings skills on the financial performance of small-scale tea farmers in Kericho County.

iii. To determine the effect of investment skills on the financial performance of small-scale tea farmers in Kericho County.

iv. To analyze the effect of debt management skills on the financial performance of small-scale tea farmers in Kericho County.

1.4 Research Questions

i. What is the effect of budgeting skills on the financial performance of small-scale tea farmers in Kericho County?

ii. How does saving skills affect the financial performance of small-scale tea farmers in Kericho County?

iii. What is the effect of investment skills on the financial performance of small-scale tea farmers in Kericho County?

iv. How do debt management skills affect the financial performance of small-scale tea farmers in Kericho County?

1.5 Justification of the Study

The research fills essential knowledge gaps and describes how financial literacy affects small-scale tea farm production in Kericho County. The poor budgeting habits and insufficient savings, together with limited investment skills and weak debt management skills of farmers,

decrease farming productivity and financial stability. Failure to address these problems will result in industry sustainability decreasing while maintaining economic weaknesses persist. Better financial literacy training helps farmers improve their financial choices, which leads to more efficient resource usage, better market shock resistance, and higher business profits. This research provides empirical evidence that supports the development of intervention strategies for policymakers, extension officers, and financial institutions, along with non-governmental organizations, to improve financial inclusion. As a theory, this research supports an improved understanding of financial literacy effects in agriculture, and as a methodology, it relies on data-driven methods to create sustainable and applied knowledge for development.

1.6 Significance of the Study

1.6.1 Small-Scale Tea Farmers

Research findings hold great value for small-scale tea farmers because they demonstrate how financial literacy affects their business outcomes. The combination of budgeting methods together with record maintenance and financial planning enables farmers to boost their revenue while decreasing exposure to market movements. Better financial education will provide them with access to credit services, debt management ability, and opportunities to purchase productive farm materials. The results offer practical recommendations which equip farmers to apply sustainable land management techniques and build financial autonomy and better life conditions. Through these findings, farmers gain awareness about financial-making potential and market risks while developing skills that help them make wise decisions for lasting economic resilience.

1.6.2 Agricultural Extension Officers

Agricultural extension officers utilize this study to enhance their knowledge about financial obstacles endured by small-scale tea farmers. The understanding of financial literacy's

effects on farm performance allows extension officers to develop specific training plans that integrate financial education into agricultural methodologies. The established framework from this research enables field officers to lead farmers through effective cost-control strategies alongside financial-saving measures and investment pathways that optimize available resources. Extension services must adopt a complete approach that connects technical expert advice with financial counselling. The research findings empower agricultural extension staff to deliver more effective services to farmers and ultimately strengthen the overall success of tea agriculture.

1.6.3 Policymakers and Government Agencies

This study delivers essential information to policymakers and government agencies because it establishes evidence about the effects of financial literacy on agricultural outcomes. Policymakers need to create focused solutions such as financial literacy classes, discounted training programs and affordable credit programs to address challenges encountered by small-scale tea farmers. The research findings enable policymakers to build strong policies that both foster responsible agricultural skills and provide equal financial resource access. The government uses this research data to create building capacity programs alongside enhanced agricultural extension systems and strategic institution partnerships. The findings derived from this research serves as guides to formulate policies that enhance small-scale farmers' economic empowerment and foster tea industry development.

1.6.4 Non-Governmental Organizations (NGOs) and Financial Institutions

Financial institutions and NGOs learn through this research that improving farmers' financial understanding creates stronger economic results. The study's results enable NGOs to build programs that teach small-scale tea farmers financial management skills. Organizations can team up with other stakeholders to solve financial literacy deficiencies and promote inclusive

financial systems within rural communities. The findings indicate that financial institutions must create specialized financial solutions which specifically target small-scale farmers. Financial institutions will achieve improved credit repayment rates while building sustaining relationships with farmers through the promotion of farming community financial literacy. This study creates an actionable blueprint to develop interventions which improve the financial stability and earnings potential of tea farming communities.

1.7 Scope of the Study

This study focuses on the financial performance of small-scale tea farmers in Kericho County, a key region in Kenya's tea industry. The study establishes itself in the tea industry framework through an analysis of budgeting approaches among small-scale agricultural farmers. This research investigates how planning and savings account management, in combination with investment choices budget and debt reduction logic alongside risk reduction techniques, affect small-scale tea farmers' financial outcomes. Data collection activities ran from March 2025 through April 2025 to obtain current industry insights. The researcher chose 2,750 small-scale tea farmers using stratified sampling to achieve regional diversity in their study. By using this method, researchers can get a range of perspectives and skills from farmers. The investigative data were collected from sources using tea farming studies alongside interviews with farmers because they deliver immediate insights toward research goals. The researcher has selected Kericho County because of its vital role in tea production; thus, this area serves as the exclusive research space. The precise geographical scope enables thorough analysis of regional operations alongside their challenges for findings applicable to specific tea-growing regions. The data were analyzed using linear regression to determine the impact of various skills on financial performance.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews research on the financial literacy and performance of small-scale tea farmers in Kericho County. The effect of budgeting skills, savings skills, investment skills, debt management skills, and financial literacy on the performance of small-scale tea farmers in Kericho County is investigated. The chapter encompasses a theoretical overview, empirical review, research gap, conceptual framework that shows the relationship between independent and dependent factors, and operationalization of variables. This chapter reviews theoretical and empirical research on financial literacy and the performance of small-scale tea farmers.

2.2. Theoretical Review

This study applies the Theory of Planned Behaviour, Life Cycle Hypothesis, Capital Asset Pricing Model, and Pecking Order Theory to determine how financial literacy affects Kericho County small-scale tea growers' performance. Meerant and Scheibl (2015) explained how behavior affects financial decisions like budgeting using the Theory of Planned Behavior (Ajzen, 1991). Financial planning for farmers involves the Life-Cycle Hypothesis (Modigliani & Brumberg, 1954), which states that people save to maintain consumption throughout their lives. The Capital Asset Pricing Model (Sharpe, 1964) links investment returns to risk, helping farmers invest. According to the Pecking Order Theory (Myers, 1984; Myers & Majluf, 1984), farmers prefer internal money before debt or external finance. This review presents the state of the literature on characteristics that promote financial literacy of small-scale tea producers and its effects on business success in Kericho County.

2.2.1. Theory of Planned Behavior

Icek Ajzen proposed the Theory of Planned Behavior (TPB) in 1991 as an extension of the Theory of Reasoned Action (TRA) proposed in 1980. The TPB suggests that human behavior is a function of behavioral intention that, in turn, is a function of three key factors: attitudes (a person's feeling about behavior), subjective norms (perceived social pressure to do or not do the behavior), and perceived behavioral control (feeling that behavior is possible or impossible to perform). In this sense, behavior may not always be under total volitional control, but intentions offer a significant prediction of behavior, as proposed by Ajzen (1991). This way, the TPB is an extension of previous psychological theories of attitude-behavior relations, which have previously focused on the attitude-behavior relation but do so by adding perceived control over behavior. It has been applied in various fields, from health to consumer behavior to financial decision-making, to develop this theory as a framework for understanding intentional behaviors.

The TPB was developed as an extension of the Theory of Reasoned Action (TRA) in which perceived behavioral control is added to capture additional factors that do not lie within the volitional sphere and, therefore, influence behavior. Ajzen (1991) reported that attitudes, subjective norms, and perceived behavioral control are the determinants of intention but have the highest predictive value. By making this modification, the TPB can be better used to explain behavior in such contexts, assuming that people may be constrained or subject to external factors such as lack of resources or information. Additionally, perceived behavioral control is the feeling people have regarding their control over their behavior, correlating with intentions and behavior. Such a development has made the TPB able to address the limitations of the TRA in that the relevance of people's behavior is not always entirely under their control, particularly in a

situation involving complex external barriers. Since then, the theory has been widely used to predict financial planning, health behavior, and environmental action behavior.

One strength of the Theory of Planned Behavior is its robust prediction. This theory has also been validated in several contexts, such as health behavior theories, consumer behaviors theories, and financial management theories (Armitage & Conner, 2001). Finally, the inclusion of perceived behavioral control provides a more complete understanding of human behavior in that it recognizes other external factors that may influence the capability to act. Nevertheless, the intention has been criticized as an overly used concept in the TPB. Intentions can help predict what behavior will occur, but intentions do not always result in behavior, typically because of unexpected circumstances. Furthermore, the theory fails to consider emotional and unconscious aspects, e.g., impulsivity or habits that account for a significant share in the behavior. However, the argument is that the TPB implicitly assumes rational decision-making; the complexity of human action is not easily reduced or captured in less structured situations.

The objective of assessing the influence of small-scale tea farmers' attitudes, subjective norms, and perceived behavioral control on budgeting skills is highly relevant to the Theory of Planned Behavior approach. Therefore, the TPB explains how attitudes related to financial management, societal pressures, and how easy or difficult it is to budget may influence budgeting behavior. For example, suppose a farmer perceives that financial planning is important and there is negligible external constraint (for instance, there is no easy access to credit or lack of financial literacy). In that case, they are likely to be involved in budgeting actions. However, they may have weaker intentions to budget effectively if they feel there are high barriers, e.g., a lack of financial resources or support. Moreover, the TPB allows us to understand how farmers'

intention, external factors, and social influence their financial behaviors and, ultimately, their financial performance.

2.2.2. Life-Cycle Hypothesis

Introduced by Franco Modigliani and Richard Brumberg in 1954, the Life Cycle Hypothesis (LCH) states that people's consumption and saving behavior evolved throughout life. This hypothesis argues that to smooth their consumption; people consume less when working years and save to spend when they retire. According to Modigliani and Brumberg (1954), individuals do not consume based only on current income but consider their expected lifetime income, which comprises current and future income needs during retirement. The LCH is a mechanism whereby people who desire to have a stable living standard will save and use these savings whilst they are earning years and use these while they are retired years. The theory overturned earlier models in which saved and consumed was viewed as the current income operating through a change in desired current expenditure.

The existence of the Life Cycle Hypothesis was rooted in the attempt to find an explanation for the decisions individuals took over the long run on both present and future income. According to Modigliani and Brumberg (1954), individuals smooth their consumption by saving during productive years to maintain their retirement lifestyle. The model has since been expanded to incorporate other variables like precautionary savings, bequest motives, and government-provided pensions (Modigliani, 1986). These additions believe that not all savings are purely motivated by future consumption needs and can be triggered by other explanations such as unexpected expenses or inheritance for heirs. The LCH has been instrumental in establishing policies regarding retirement savings, pension schemes, and social welfare programs by providing a lens through which to understand people's long-term financial behavior.

The hallmark of the Life-Cycle Hypothesis is its ability to explain big-picture saving and consumption patterns over the life course. The idea behind the theory highlights the notion of smoothing consumption that makes sense with real-world financial behavior, particularly the impulse to save for retirement. Furthermore, it offers information on the financial behavior of different types of people at various stages of life. However, the LCH has been criticized for its assumption that anybody has perfect foresight of their future income and expenses. Some argue that much of the population is unaware of the entirety of their expected earnings or is subject to unforeseen economic shocks, including illness or job loss that distort saving behavior. The theory also assumes rational behavior of people, ignoring that they may be present biased, meaning that they tend to choose the present over long-term saving (Dynan, 2000). However, such simplicity makes the LCH a worthwhile framework, as it oversimplifies the complexity of real-life financial decision-making.

The Life Cycle Hypothesis is particularly pertinent to assessing the savings skills of small-scale tea farmers in Kericho County because the underlying nature of savings is determined by both present income and future needs. According to the LCH principles, farmers may save money during good harvest years to ensure financial stability during lousy harvest years. This theory can inform us how farmers with substantial savings could better perform financially by being prepared for future uncertainties, like crop failure or retirement, especially since small-scale tea farms are subject to seasonal fluctuations. Consequently, the LCH emphasizes the benefit of a forward economy on savings strategies, which can be linked to better financial outcomes and the sustainability of farmers.

2.2.3. Capital Asset Pricing Model

William Sharpe (1964) introduced the Capital Asset Pricing Model (CAPM), which was further extended by John Lintner and Jan Mossin (Cross, 1998). Using CAPM allows the relationship to explain the expected return of an asset and its corresponding risk, quantified by beta. By the model, an expected return of an asset, the risk-free rate, plus some addendum for being riskier would be the assets' correspondence to the industrial market. The model highlights that investors require higher returns on riskier assets (risk), and beta is the amount of risk of an asset relative to the market as a whole. Since it has become a primary theoretical basis in finance—the asset pricing theory and portfolio management. It has offered a simple but powerful framework for thinking about the risk-return tradeoff, an essential investment ingredient, making it a good tool in the drawer.

Capital Asset Pricing Model (CAPM) helps in determining how the expected return of an asset depends on its risk. The CAPM was the first to introduce systematic risk (which is not diversifiable) and that an investor's portfolio return is a function of the systematic risk, i.e., the market-wide risk (Sharpe, 1964). CAPM, in establishing the relationship between an asset's risk and return, had its formula for calculating expected return: $E(Ri) = Rf + \beta i(E(Rm) – Rf)$, where E(R) i is the expected return of the asset, Rf the risk-free rate, βi the beta coefficient of the asset and E(R) m the expected market return. In the case of portfolio management, the model assumes that all the investors are rational and have equal access to equally available information, yielding the efficient frontier. The CAPM was important in developing modern portfolio theory and portfolio management strategies.

The main strength of the CAPM is the ease of its application in real-world financial analysis, which calculates the expected returns of risky assets. The model has been applied

widely for asset pricing, portfolio optimization, and risk assessment (Fama & French, 2004). However, CAPM is criticized as they point out that it relies on unrealistic assumptions like the existence of only one risk-free asset, perfect market conditions, and the rationality of the investor. Moreover, beta used by the model as a measure of risk is also challenged, as it implicitly assumes that all risks are highly correlated with the market and ignores the effect of market inefficiency and behavioral biases. Empirical tests of the CAPM have also shown that it frequently mispredicts returns, especially in markets with high volatility of anomalies. This indicates that the model may not fully capture the intuition of real-world asset pricing.

Therefore, the Capital Asset Pricing Model is pertinent for the appraisal of investment skills of small-scale tea farmers in Kericho County. Farmers with a good knowledge of the risk-return tradeoff can apply the CAPM framework to invest in lands, technology, or other agricultural improvements. Understanding how much risk is associated with each return is important for farmers to make better investment decisions and, in turn, increase their overall financial performance. For example, the farmer good at managing risk should be able to ride out periods of low market prices or even poor harvest and have more stable income streams. Students can use the CAPM as a valuable lens for understanding how farmers' investment decisions are affected by risk perceptions and how they should optimize their financial strategies.

2.2.4. Pecking Order Theory

Stewart Myers and Nicholas Majluf introduced the Pecking Order Theory in 1984 to explain firms' priorities regarding their sources of financing. Based on the theory, companies should always prefer internal financing (retained earnings) over external financing, including debt or equity. Firms will first borrow when internal funds are insufficient, and when that finance route is closed, they will use equity. According to Meyers and Majluf (1984), this behavior is

due to information asymmetry between managers and investors. If a firm has more information about its financial position, less equity should be issued, which could signal to the market that it is undervalued. Therefore, firms prefer to use internal resources or debt to prevent outsiders from discovering private information. This theory contradicts the common belief about the optimal capital structure strategy to balance debt and equity.

The transition that marked the birth of the Pecking Order Theory saw companies and individuals being looked at differently regarding making financing decisions. Before these theories, it was thought that maximizing debt and equity was optimal and would balance the costs and benefits of debt and equity by companies. However, Myers and Majluf (1984) argue that whenever debt or equity is issued, it is due to an informational asymmetry. So, firms are unwilling to issue equity because doing so may indicate a lack of or undervaluation of the firm or financial distress and doing so will drive down stock prices. The theory assumes that the money retained earnings are a first company for one reason: they do not involve external scrutiny. Debt is then favored as the next option of taking more funds if required because it does not involve giving up ownership or control of the assets. The firm's internal resources and debt options are run out until equity is issued.

The one thing that the Pecking Order Theory is good for is that it introduces the concept of information asymmetry in the financing decisions of the firms, which is a more accurate approach to the firm's behavior than the assumption of perfect information prevailing in the models. Empirical evidence has shown that the theory has been upheld, especially for firms that are exposed to high uncertainties and reluctant to reveal their financial information to outside investors (Frank & Goyal, 2003). However, the theory is complicated because other factors, such as market conditions, tax benefits of debt, and other advantages of equity, are ignored in the

theory. The theory also assumes that firms will always be able to access debt financing, whereas smaller or lean firms may not necessarily have that access. Moreover, it fails to consider the potential equity benefits, like increasing the capital to expand or decreasing the exposure to the potential leverage.

The Pecking order theory can be applied when examining debt management skills in small-scale tea farmers in Kericho County. However, farmers who are good at running a business and managing their funds may be inclined to use internal resources to run business activities rather than borrow money when possible and use equity-like money borrowed from outside. This allows the farmers to enhance financial stability, risk reduction, and sustainability. The theory provides a frame of reference for understanding how farmers make financial decisions and how such decisions can impact the farmers' long-term financial health.

2.3 Empirical Review

2.3.1. Budgeting Skills and Financial Performance of Small-Scale Tea Farmers

Korir, Naibei, and Cheruiyot (2021) explored the influence of the budgeting processes on the financial performance of the tea factories in the Rift Valley Region in Kenya. A correlational research design was used to study 96 respondents from Kericho and Bomet counties from 7 factories. It was found that the budgeting variables (planning, control and monitoring, participative budgeting) have a highly significant positive relationship with performance, with 80.8% of the variation explained by the budgeting process ($R2 = 0.808$; $p < 0.05$). These results were based on the model $Y = \alpha + 63.1\ X1 + 50.2\ X2 + 69.5\ X3 + \varepsilon$, which showed the important role of budgetary control in achieving the firm performance. The research highlights the importance of having a sound budget to achieve a good financial outcome and promotes future research in a similar context. These insights may be drawn to encourage policy decisions to improve the tea sector budgeting skills.

Nyambutora and Omwenga (2021) investigated the implications of budgeting skills on the financial performance of agribusiness SMEs in Kisii County, Kenya. The study used a sample of 130 respondents from a population of 152 SMEs in the horticulture, dairy, and poultry sectors. Questionnaires were developed for data collection; validity and reliability were tested in piloting. The findings revealed that budgeting skills considerably affected the financial performance of the SMEs in question. The study found that effective budgeting significantly improves operational business, and we recommend that SME managers take up robust budgeting skills. On the other hand, it also suggested that training programs must be developed to help manager's better finance the organization. This study helps to understand how budgeting skills can aid in improving the financial success of agribusiness SMEs. It also helps policymakers and industry stakeholders understand how it can improve agribusiness SMEs' financial success.

In their study, Mbogo, Jimmy, and Olando (2021) considered the effect of budgeting skills on the performance of financial manufacturing SMEs in Nairobi County, Kenya. The research focused on skills such as planning cash flows (BP), controlling cash flows (BC), resource allocation (BRA), coordination of activities (AC), and monitoring of financial position (MFP). This research used a descriptive research design, and data was collected through a self-administered cross-sectional study of 156 Manufacturing SMEs in Nairobi. In contrast, analysis was done using structural equation modeling. The results also indicated that budgeting skills significantly positively affected financial performance. The study highlights the importance of strategic budgeting in increasing the financial success of manufacturing SMEs, and it concludes that it can boost firms' achievement through proper planning, control, and monitoring of financial activities. This research helps to understand the link between budgeting and financial outcomes for SMEs and suggests practical implications for business managers and policymakers.

In their study, Nziok (2017) and Kiiru et al. (2018) investigated budget planning on the financial performance of SMEs in Nakuru Town Central Business District (CBD). The Agency, Balanced Scorecard, Contingency, and Stakeholder theories guided the descriptive research design. The respondents were randomly chosen, stratified random and purposive, from a pool of 108 respondents, consisting of SME owners and finance officers. A relationship exists between budget planning and financial performance, which is statistically significant, moderate, and positive ($r = 0.443$, $p < 0.05$). SPSS was used for qualitative data analysis using descriptive and inferential statistics. The findings stressed the importance of regularly revising the budget and evaluation of large projects in order to improve financial performance. According to the study, SMEs need to pay more attention to updating and analyzing their budgets to achieve better financial outcomes and accountability. At the same time, employees are familiar with budgeting skills.

2.3.2. Savings Skills and Financial Performance of Small-Scale Tea Farmers

Emile, Mburu, Mulyungi, Eric, and Aimable (2018) investigated the factors influencing savings among small-scale coffee farmers in Karongi District, Rwanda. The study employed a structured questionnaire and collected data from 202 respondents using a mixed sampling technique. The data were analyzed using a Probit model to predict factors that affect savings in the household. Savings were influenced by farm size, experience in savings, proximity to coffee washing stations, farmers' access to extension services, and farmers' perceptions of savings advantages. The findings indicate that policymakers and implementers in Rwanda need to improve savings by farmers, extension services, and farmers' assets. The findings help unlock the barriers to savings in the agriculture sector and offer practical recommendations to help increase financial security in rural farming communities, particularly those dependent on coffee.

According to the study by Zuze (2014), factors affecting savings among small-scale tea farmers in Kericho Town, Kenya, are explored. A purposive explanatory study was used to conduct the study; it collected primary data from 190 tea growers out of the chosen sample of 190 in clusters. Using principal component analysis and frequency distribution analysis, it was shown that dependency ratio, income, credit access, and Sacco services were the key factors influencing savings. No significant effect was discovered for savings behavior owing to age, gender, and tax. It was also discovered that interest rates gave mixed returns, with the same proportion of respondents considering it a strong and weak influence. Factors contributing to the extra savings included business expansion, retirement, school, and emergency needs. The study finds that context-specific factors influence savings behavior and recommends that broader national studys be conducted to understand the trends among tea farmers regarding savings. The findings offer valuable lessons to policymakers and financial services providers.

Jayasinghe, Liyanage, Wijesundara, Ranasinghe, and Weligodapola (2019) investigated small-scale cinnamon planters in Sri Lanka to examine factors influencing savings and investment behavior. Using a microeconomic approach, snowball sampling, and semi-structured interviews, data was gathered from cinnamon planters. SPSS was used to analyze the data, and word clouds were created. The analysis of the findings showed that savings primarily took the form of deposits while the investment strategy was business expansion. Several factors influence savings: income, number of dependents, trustworthiness, and convenience. Key factors in capital investment decisions were business growth, risk, and return. For the future, the study advised developing a sound pricing system, well-equipped factories, and appropriate saving schemes to attract investment and quality growth in the cinnamon industry. The recommendations are

intended to help improve the financial success of small-scale cinnamon planters and enhance the overall economic development of the cinnamon industry.

Owuor (2019) further examined the effect of financial literacy on the financial performance of SMEs in Kajiado County, Kenya. The study investigated whether knowledge in budgeting, bookkeeping, and savings was associated with business profitability and growth. A descriptive research design was used to achieve the purpose. The theories used for research were financial literacy, transaction cost, and resource-based theories. Data were collected from SMEs through questionnaires for a sample of 399 SMEs, which were sampled randomly. The study established that SMEs in Kajiado County generally had low levels of financial literacy, where budgeting and bookkeeping were the main problems. Of the many business competencies examined, only savings literacy did not influence financial performance; however, it was found that budgeting and bookkeeping failed to achieve the desired outcome. It was concluded that increasing SMEs' financial literacy in the region, specifically in budgeting and bookkeeping, can greatly impact their financial performance and long-term success, significantly contributing to economic growth.

Jagongo and Owuor (2023) undertook a study on the impact of financial literacy on the financial performance of SMEs in Kajiado County, Kenya. The study used a descriptive research design focused on budgeting, bookkeeping, and savings literacy and their impact on a business's profitability and growth. The study was based on financial literacy, transaction cost, and resource-based theories. In this case, a study of 399 SMEs was executed, and data was collected through questionnaires. The study revealed that despite the increase in the number of SMEs in various parts of Kajiado County, financial literacy among SMEs was low, and budgeting and bookkeeping were challenging. While savings literacy made no difference to financial

performance, they discovered that improving the practice of budgeting and bookkeeping helps improve business performance. Financing is also a key process that, if reasonably taken, can contribute to the economy's growth in the long term and improve financial performance if people are literate in budgeting and bookkeeping.

2.3.3. The Effect of Investment Skills on the Financial Performance of Small-Scale Tea

Waruguru and Chepngenoh (2024) investigated the impact of financial literacy on small-scale tea farmers' investment decisions in Bomet County, Kenya. The focus of the study was the effect that the knowledge of borrowing, budgeting, saving, and recording keeping has on the choice of investment. The researchers designed a descriptive study and used simple random sampling to study small-scale tea farmers within Bomet Central Sub County. The questionnaire was tested with reliability using SPSS, and the Cronbach alpha values were high, which means it was reliable. For example, saving literacy was positively related to investment decisions, and borrowing, budgeting, and record-keeping literacy were unrelated significantly. The regression analysis results showed that saving literacy raised the decisions about investing, but borrowing and budgeting literacy lowered it. The study concluded that financial or, in particular, saving literacy determines the small-scale tea farmer's decisions to invest in tea.

In the case of Igara Grower Tea Factory, Atuhire, Bateyo, and Turyamushanga (2023) investigated how financial performance affected the factory profitably through outsourcing and key financial indicators, including return on investment, return on equity, earnings per share, and profitability. The respondents in the study were selected via simple random and purposive sampling techniques, whereas the data were collected through cross-sectional and descriptive research designs, respectively. Quantitative and qualitative approaches were used. A relationship between outsourcing and the financial performance of the factory was evaluated using Pearson's

linear correlation coefficient. The study discovered that the financial performance of Igara Grower Tea Factory was positively affected by outsourcing. After considering the financial performance and the obligations towards outsourcing functions, the researchers concluded that a successful financial performance leads to a mutually beneficial relationship between the organization and the outsourcing services provider.

To understand the effect of technological innovation investments on the financial performance of small-scale tea industries in Kenya, Mobegi, Nasieku, Mokaya, and Okibo (2023) investigated such investments. The specific subject studied was investment in fermentation innovation and the resulting changes in financial performance. They were based on the Schumpeterian Theory of Innovations, Efficiency Theory, Technology Acceptance Model, and Theory of Innovation Diffusion. Secondary data was collected over five years for the target population, i.e., 66 small-scale tea factories. The study analyzed a positive and significant correlation between the level of investments in technological innovations and the financial performance of the tea industry using a panel regression model. Technological innovations, especially in fermentation, were found to have a significant role in increasing the financial outcome of small-scale tea firms. It also suggests that the tea industry management should invest in more modern and less expensive equipment to enhance its financial performance.

In Nyaruguru District, Rwanda, Kabayiza, Owuor, Langat, and Niyitanga (2021) explored factors of the tea farmers' choice over alternative credit sources. In tea production, credit is vital to cover costs such as fertilizers, seedlings, and labor. The study's objectives were to investigate factors determining smallholder tea farmers' choices of credit source. Multivariate probit regression was applied to study data of 358 tea farmers from two cooperatives in the district. Findings showed that if they had collateral, favorable interest rates, a more considerable

tea plantation, and a suitable household composition, farmers were more likely to borrow from formal sources such as commercial banks. On the contrary, farmers who wanted smaller loans, those who participated in technical training, or those involved in joint credit used informal sources. Government policy, they concluded, should be directed toward integrating agricultural loans into the financial system and directing smallholder farmers with less credit constraints.

Mobegi, Nasieku, and Mokaya (2023) were interested to see how technological innovation investments affect the financial performance of small-scale tea industries in Kenya. Although working on increasing operational costs, growing interest in the tea sector has been in innovation such as fermentation, pruning, weighing, and information systems to boost efficiency. The theory of this study was based on the Schumpeterian Theory of Innovation, Efficiency Theory, Technology Acceptance Model, and Theory of Innovation Diffusion. A panel regression model was used to analyze secondary data on two factors of 66 small-scale tea factories in Kenya from 2014 to 2018. Results suggest that the investments in these technological innovations had a positive and significant relationship with the financial performances of small-scale tea industries. The authors note that this relationship is moderated by firm size. This implies that tea firms should use more continuous fermentation units, pruning machines, electronic weighing machines, and data processing systems to enhance efficiency and profitability.

2.3.4. Debt Management Skills and Financial Performance of Small-Scale Tea Farmers

In Kisii Central Sub County, Kenya, Mitaki and Nyariki (2022) investigated the effect of capitalization on small and medium enterprises' financial Performance. It adopted a descriptive study design whereby data was collected from 109 SMEs previously selected through sampling and Yamane's formula. With SPSS version 23, the analysis showed a significant difference in SME performance due to the choice of financial structure, especially the balance between debt

and equity financing. While equity capital comprises a relatively higher proportion of financial structure, retained earnings, which do not significantly affect performance, are the cheapest and easiest-to-bear financing expansion. Further, the authors recommend that SMEs aim at an optimal financial structure to minimize reliance on either equity or debt financing in the interest of controlling risks and survival.

The financial Performance of small-scale tea factories in Kericho and Bomet counties of Kenya was explored under credit risk management by Chelangat and Tibbs (2018). Using simple random sampling based on the criterion of management and accounting, the study employed a descriptive research design with a sample of 80 managers and accountants in the tea factories. Questionnaires were collected as data and analyzed using descriptive and inferential statistics. It was found that effective credit risk management has a positive and significant relationship with the financial Performance of small-scale tea factories. Finally, the authors suggested that the factory's superiors should engage financial experts to help mitigate financial risks and enhance the company's overall financial Performance.

In their study of the Performance of small-scale enterprises in the Kumasi Metropolis of Ghana, Addaney, Awuah, and Afriyie (2019) studied the impact of debt management. To determine this, the study interviewed 120 small-scale enterprises, and hardly any businesses had in-depth knowledge of debt management. Insufficient advice on business type and finances, lack of knowledge on what kind of business to do, and failure to properly keep financial records were key factors contributing to debt accumulation. According to the study, small-scale businesses should hire financial experts to run their operations by keeping proper accounts. In addition, it indicated that companies should efficiently use their budgets to limit unnecessary expenditures and mounting debt that will damage company performance. The study further advised financial

institutions to offer advice from experts to their clients on how to manage their businesses effectively.

The study by Mibei and Shiundu (2024) assessed the effect of debt financing on the financial Performance of tea companies in Kericho County, Kenya. The capital structure theory used was the Static Trade-Off Theory of Capital Structure, and an explanatory research design was used with an emphasis on three multinational tea companies in the county. Secondary data from the companies' financial statements and a census approach were taken. Descriptive statistics and regression analysis do data analysis. Findings reveal the negative correlation between debt financing and return on assets, implying that debt financing negatively impacts the company's financial Performance. The study concluded that tea companies' capital structure should have an optimal structure to minimize capital costs and maximize returns. It suggested that debt and equity financing strategies would be balanced to ensure the business's financial Performance and support growth.

The effects of financial management skills on the profitability of tea firms in Kisii County, Kenya, were studied by Obara and Muturi (2019) on cash and inventory management. The research design used was descriptive and grounded in the Agency Theory and Free Cash Flow Theory. The tea firms were sampled using a census approach, and 48 employees from the sampled firms were addressed using questionnaires and financial records over five years. The data were analyzed using descriptive and inferential statistics such as correlation and regression analysis. In a positive way, the study showed that cash management, particularly enhanced cash collection, had affected liquidity and profitability. Moreover, inventory management skills had a positive relationship with profitability, whereby having suitable stock levels in place would enable this production process. The study also recommended better debtor records, debtor

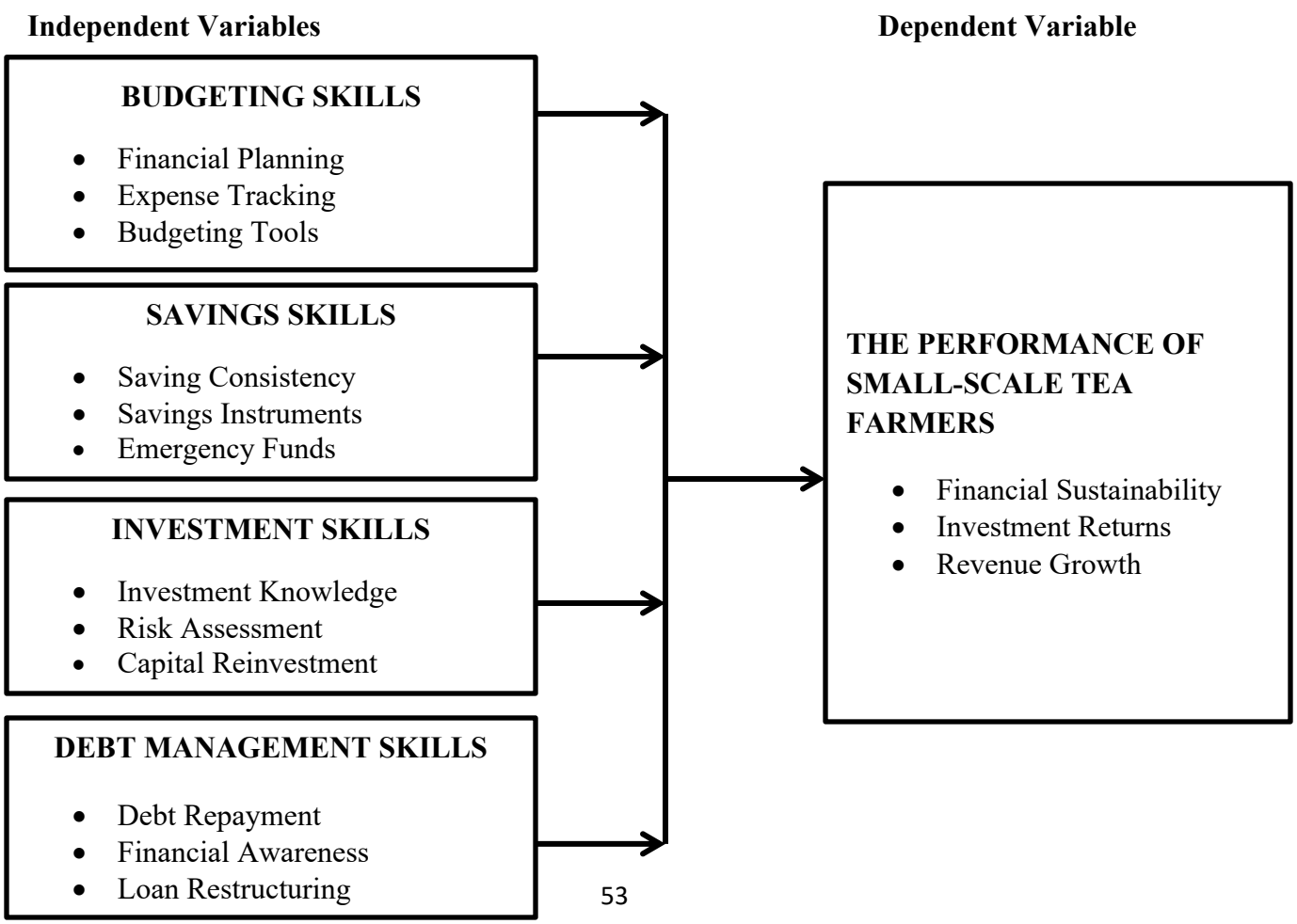
collection period and rate measurement, and formulation of cost reduction strategies to enhance profitability in both firms. The research was suggested to research financial management skills in other sectors.

2.4 Conceptual Framework

Figure 2.1 represents diagrammatically the relationship between independent and dependent in this study. Small-scale tea farmers will depend on their performance, while budgeting, saving, investment, and debt control were the independent factors. It is theoretically hypothesized that budgeting; savings, investment, and debt management would improve the performance of small-scale tea farmers.

FIGURE 2.1

Conceptual Framework



2.5 Literature Gaps

Several gaps exist in the literature according to the studies reviewed. Korir et al. (2021) and Nyambutora and Omwenga (2021) addressed certain regions (Kericho, Bomet, and Kisii counties) but have not focused on how contextual factors, for example, local economic or environmental inputs, affect budgeting skills. Neither study compares different budgeting techniques, such as zero-based versus participative budgeting. Korir et al. (2021) and Mbogo et al. (2021) utilize correlational design, leaving it to be established whether causality is actual or not and whether market fluctuations, government policies, etc., might influence the relationship. Unlike Kiiru et al. (2018), this study does not examine technology's role in budgeting skills; moreover, the studies do not extend to rural areas or other regions. Furthermore, none of the studies consider the impacts of budgeting skills over time on financial sustainability and provide prospective research on enduring outcomes.

Despite the studies' reviews, there is room for gaps in studying factors that influence savings and financial performance. Although Emile et al. (2018) studied coffee farmers in Rwanda, they did not examine the relationship between financial literacy or awareness of financial products and their savings behavior. Savings among tea farmers in Kericho, Kenya, have been studied by Zuze (2014). However, he did not examine the impact of digital financial tools and mobile banking on savings behavior, which is also relevant in rural areas. Although Jayasinghe et al. (2019) studied savings and investment behavior in Sri Lanka, external factors such as government policies or market volatility were not included in the model to determine savings decisions. However, Owuor (2016) and Owuor and Jagongo (2023) have examined financial literacy in the SMEs in Kajiado County and never went any further to establish under what conditions financial education programs and external support systems, for instance, the

community-based savings groups would facilitate in the enhancement of savings behavior and financial performance. Importantly, these studies mainly deal with specific regions or services, making it difficult to generalize and indicating a need for more research on savings behavior in different agricultural and business sub-sectors.

However, the reviewed studies offer beneficial capacity to the effect of investment skills on the financial performance of small-scale tea farmers and several other gaps in the literature. The study by Chepngenoh and Waruguru (2024) established that savings literacy influenced investment decisions; thereby, this study leaves out other forms of literacy that affect investment outcomes, such as risk management or investment diversification. However, Atuhire et al. (2023) did not examine the observation of investment skills in enhancing outsourcing decisions in Igara Grower Tea Factory. While Mobegi et al. (2023) discovered that the impact of technological innovation investments on financial performance is positive, their study does not suggest those tea farmers' investment skills of decision-making and financial planning could positively or negatively influence the achievement of similar outcomes. However, Kayabiza et al. (2021) only sought to understand credit sources for Rwandan tea farmers, not which credit source was best suited for supporting business growth based on investment literacy. Mobegi et al. (2023) finally mentioned that investment in technology has a positive impact but did not comment on how tea farmers' decisions on investing may influence the adoption of innovations. This implies that more research on how components of investment skills directly impact decision-making and financial outcomes is still needed in the tea industry.

While the reviewed studies provide helpful information on the impact of debt management skills on the performance of small-scale tea farmers, the gap remains. Taking the shot as correctly but carelessly as usual, he caught the ball as it exited the bucket. From there, he

took it to a pony on the other side of the fence, attempting to land a soccer ball in an arena where it continuously played. However, as Chelangat and Tibbs (2018) noted, credit risk management for tea factories is essential. However, the skills of the individual tea factory managers have not been analyzed in terms of their role in the success of credit risk management strategies. According to Addaney et al. (2016), small businesses had little knowledge of debt management but did not examine specifically if debt management training or skills development impacts financial performance. Mibei and Shiundu (2024) found that debt financing hurt performance in tea companies but failed to ascertain how the debt management skills of managers could ameliorate this issue. Next, Obara and Muturi (2019) considered cash and inventory management as two management components, while the influence of debt management on the profitability of the tea firms was not directly investigated. These gaps indicate that debt management skills affect financial decisions and outcomes in the tea sector, and further research is needed.

2.6 Operationalization of Variables

The performance of Kericho County small-scale tea farmers is measured in terms of frequency and accuracy of effects of the budgeting skills, savings skills, investment skills, debt management skills, and financial literacy on Kericho County small-scale tea farmers investigated and disclosed in Table 2.1.

TABLE 2.1

Operationalization of Variables

Type of Variable	Variable	Measures	Data Collection Tool	Scale	Design
Independent [X1]	Budgeting Skills	Financial Planning, Expense Tracking, Budgeting Tools	Questionnaire	Likert	Descriptive/Exploratory
Independent [X2]	Savings Skills	Saving Consistency, Savings Instruments, Emergency Funds	Questionnaire	Likert	Descriptive/Exploratory
Independent [X3]	Investment Skills	Investment Knowledge, Risk Assessment, Capital Reinvestment	Questionnaire	Likert	Descriptive/Exploratory
Independent [X4]	Debt Management Skills	Debt Repayment, Financial Awareness, Loan Restructuring	Questionnaire	Likert	Descriptive/Exploratory
Dependent [Y]	Performance of Small-Scale Tea Farmers	Financial Sustainability Investment Returns Revenue Growth	Questionnaire	Likert	Descriptive/Exploratory

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines the methodology that was used to examine the effect of financial literacy on the performance of small-scale tea farmers in Kericho County. The research conformed to a descriptive and correlational design wherein financial literacy components, budgeting, saving, investment, and managing debt are systematically analyzed. Small-scale tea farmers were the target population, and stratified and purposive sampling techniques determined how many were taken as a sample. Structured questionnaires were used to collect data, which were valid and reliable after being tested with a pilot. Tests for assumptions of normality, multicollinearity, and heteroscedasticity were done using multiple regressions for the analysis. The study was conducted according to ethical considerations, including informed consent and confidentiality. Tables and charts were used to present the findings for clarity.

3.2 Research Design

The conceptual framework pertaining to the execution of the study relates to research design. A descriptive cross-sectional research technique was employed to answer the study's research challenge. Descriptive research aims to ascertain the prevalence of a phenomenon and its attributes, including the what, when, and how of its occurrence (Cooper & Schindler, 2018). This design is appropriate as it enables the researcher to utilize quantitative data to assess the impact of financial literacy on the performance of small-scale tea growers in Kericho County.

3.3 Target Population

A target population refers to the entire group of individuals or elements that share a common characteristic or attribute relevant to a study (Kothari, 2014). Everyone in the

population shares this trait. According to the Kenya Tea Development Agency (KTDA), there are about 600,000 smallholder tea farmers across Kenya (KTDA, 2024). According to Kericho County (2024), there are 2,750 small-scale tea farmers doing farming an average of 0.9 Hectares which form the target population of this study. These farmers are spread across all the sub-counties of Ainamoi, Belgut, Bureti, Kipkelion East, Kipkelion West, and Sigowet. The unit of observation was the 2,750 small-scale tea farmers to be used as respondents.

TABLE 3.1

Target Population

Sub-County	Number	Percentage (%)
Ainamoi	561	20.40%
Belgut	357	12.98%
Bureti	567	20.62%
Kipkelion East	305	11.09%
Kipkelion West	381	13.85%
Soin/Sigowet	579	21.05%
Total	**2,750**	**100%**

Source: (Kericho County, 2024)

3.4 Sample Size and Sampling Procedure

Sampling is the process of selecting an item or group of items from a bigger population. A sampling methodology is a method for selecting a representative sample. Stratified and purposeful sampling were employed in the study. The research recruited participants by using stratified random sampling, which guarantees the participation of farmers from various

categories, such as different farm sizes combined with farming methods and Kericho County locations. Two thousand seven hundred fifty small-scale tea farmers were obtained from local agricultural records, followed by a random selection of 348 farmers from each stratum. The participants got complete study information from local community leaders, farmer cooperatives, and agricultural extension officers before consenting to join the research. A structured method delivered a broad collection of farmers who own small-scale tea gardens from across the research area. Assuming a significant level of $P > 0.05$ and a 95% confidence level, Yamane's proportional formula was utilized in the selection process.

$n= N/1 + Ne^2$

Where: n = required sample

N = Sample size

e^2 = error limit

n. = 2,750 / 1 + (2750 x 0.0025)

= 2,750/ (1 + 6.875)

= 2750 / 7.875

= 348

(n) = 348 respondents.

Using Yamane's method with a 95% confidence level and a 5% margin of error, the study must study at least 348 small-scale tea growers for statistically meaningful results.

TABLE 3.2

Sample Size

Sub-County	Sample Size	Percentage (%)
Ainamoi	71	20.40%
Belgut	45	12.98%
Bureti	72	20.62%
Kipkelion East	39	11.09%
Kipkelion West	48	13.85%
Soin/Sigowet	73	21.05%
Total	**348**	**100%**

Source: (Researcher, 2025)

3.5 Data Collection Instruments

Data collection is the systematic gathering and analysis of variables of interest to address research questions, test hypotheses, and evaluate outcomes (Burns & Burns, 2018). The type of information required determines the choice of research instruments. In this study, primary data were collected using questionnaires, which are cost-effective, reliable, and efficient for capturing responses. Closed-ended questions were employed to obtain precise and comparable data. A total of 348 questionnaires were administered to small-scale tea producers across six sub-counties of Kericho County.

3.6 Data Collection Procedures

Data collection denotes the process of gathering empirical data to gain distinct insights into a situation and to answer the inquiries that initiated the research (Khan, 2018). Approval for

data collection were requested from the KCA University Scientific and Ethics Review Committee. The resource of 348 individuals were considered sufficiently knowledgeable, and hence, the created questionnaire was regarded as effective for data collection. The researcher distributed the questionnaire to the small-scale tea farmers. The researcher used drop and pick strategy to distribute the questionnaires. Subsequent inquiries were conducted to guarantee a substantial response rate. All ethical considerations were observed.

3.7 Pilot Test

The study tool must be accurate and applicable. A pilot research was therefore carried out in this regard. In order to ascertain whether a full-scale study is feasible, a pilot study ~~c~~arried out. In order to determine the validity and reliability of the questionnaire, a pilot research carried out with 35 participants, representing 10% of the 348 target respondents. A 10% sample (35 of 348) was used, as it's a standard size to test questionnaire reliability and clarity. The researcher sent out the study to 35 small-scale tea growers to get their thoughts on the questions and any suggestions for how to improve it so it can more accurately and consistently answer the research questions. The 35 participants were not considered for inclusion in the final report.

3.7.1 Validity of Data Collection Instrument

An instrument's validity is defined as the degree to which it reliably measures a certain concept (Cooper & Schindler, 2018). In contrast, construct validity checks whether a concept's theoretical meaning is consistent with its practical specification of variables. This were accomplished in the current study by adapting an existing questionnaire that is based on prior research such that it fits the research goals. Conversely, content legitimacy was confirmed by expert opinion guidance. For this reason, it was essential that study supervisors review the questionnaire and provide knowledgeable comments to guarantee that all study factors are

captured. In addition, they verified the study's accuracy by comparing the supplied theoretical dimensions to their intended form.

3.7.2 Reliability of Data Collection Instrument

Reliability is a statistic employed to characterize the overall consistency of an instrument (Cooper & Schindler, 2018). A measure is deemed to possess high dependability when it repeatedly yields analogous outcomes under same conditions. The application of Cronbach's alpha analysis helped in assessing the reliability of the research instruments by demonstrating the accuracy of the internal data collection method. Cronbach's Alpha is a valid dependability statistic that indicates a legitimate "base" score. Cronbach's Alpha is essential for researchers in assessing the validity and reliability of a questionnaire, even when analogous questions replace some of the original items (Khan, 2018). A reliability rating of 0.7 to 0.8 is generally considered satisfactory, while a grade over 0.8 is deemed outstanding. The work was evaluated against this threshold. The guidelines for Cronbach's alpha (α) reliability are shown in Table 3.3.

TABLE 3.3

Cronbach's alpha (α) Rules of Thumb

Cronbach's alpha (α)	Internal consistency
$\alpha \geq 0.9$	Excellent
$0.8 \leq \alpha < 0.9$	Good
$0.7 \leq \alpha < 0.8$	Acceptable
$0.6 \leq \alpha < 0.7$	Questionable
$0.5 \leq \alpha < 0.6$	Poor
$\alpha < 0.5$	Unacceptable

3.8 Data Analysis and Presentation

According to Burns and Burns (2018), data analysis is the process of transforming raw data into a comprehensible, standardized, and scientifically sound format. Kothari (2014) states that it comprises a network of related processes with the overarching goal of summarizing and organizing the collected data in a manner that answers the research question. The researcher verified the questionnaires for completeness and adequacy as well as counted them. Adequacy were used to sort the questionnaires. Every question was given a unique code before being scored. In order to determine the strength of developing themes, the data were thereafter input into a computer system for evaluation and summary. The descriptive aspects of the data were analyzed using the mean and standard deviation, which represent central tendency and dispersion, respectively. To analyze the existence of relationships between and among variables, correlation and regression was employed. The analysis was done using SPSS version 22.

3.8.1 Model Summary

The regression model below was used: $\boldsymbol{Y = \alpha + \beta\ 1X1 + \beta\ 2X2 + \beta\ 3X3 + \beta\ 4X4 + \varepsilon}$

Where: Y = the performance of small-scale tea farmers α =y regression intercept. B1- β4= Model coefficients X1 = budgeting skills**;** X2= saving skills**;** X3= investment skills and**;** X4= debt management skills ε =error term

3.9 Diagnostic Tests

To ensure that no violations of the principles of the classical linear regression model have occurred, diagnostic tests were done before moving on to the equation calculations. Model parameters become skewed and inefficient when the rules of a classical regression model are not

followed. Therefore, diagnostic tests were performed to ensure that the conventions of regression analysis are not violated.

3.9.1 Normality Test

A normality test was performed to ascertain if the data follows a normal distribution. This is significant because several statistical tests, including t-tests, ANOVA, and regression, rely on the assumption of normal distribution of the data. If the data is not regularly distributed, the outcomes of these tests may be erroneous. The research employed statistical tests such as the Shapiro-Wilk test or the Kolmogorov-Smirnov test to assess normalcy.

3.9.2 Multicollinearity Test

The analysis assessed multicollinearity through a correlation matrix, employing a threshold of 0.8 (Cooper & Schindler, 2018). Neglecting multicollinearity leads to endless standard errors and indeterminate regression coefficients, culminating in elevated standard errors. This affects the accuracy of rejecting or not rejecting the null hypothesis. The extent of multicollinearity influences the estimating process. A correlation coefficient exceeding 0.8 signifies severe multicollinearity.

3.9.3 Heteroscedasticity

Heteroscedasticity must be examined and fully addressed in the Classical Linear Regression Model (CLRM). The error term exhibits constant variance, as stipulated by the Classical Linear Regression Model (CLRM). If the error variance is not constant, the data is classified as heteroscedasticity. Conducting a regression analysis prior to assessing heteroscedasticity yielded unbiased estimated coefficients, but the standard errors were

inaccurate. This study evaluated panel-level heteroscedasticity using the Likelihood Ratio (LR) technique developed by Khan (2018).

3.10 Ethical Consideration

The researcher maintained all necessary ethical standards for upholding participant integrity while preserving their protection. Without any negative impact, the study's purpose, procedures, potential risks, and withdrawal terms were explained to all participants, who must sign informed consent before the research begins. Protective measures targeted at-risk participants, and all farmers were ensured their freedom to decline participation in the study. Members from the local tea cooperatives, extension officers, and community leaders helped recruitment by providing cultural understanding and fair processes. The researcher and supervisor hold sole access to data in two formats: digital storage on USB drives and Google Drive and physical storage with restricted access. Data anonymization weregin prior to both sharing and analytical purposes. Participation were designed to cause no damage to participants, and reporting presented accurate and unbiased findings. Thedissertationhas been submitted to the KCA University Ethical Review Committee for ethical approval, and all conflicts of interest were publicly disclosed.

CHAPTER FOUR

DATA ANALYSIS AND PRESENTATION OF FINDINGS

4.1 Introduction

This chapter presents the findings from the data collected through questionnaires distributed to small-scale tea farmers. The analysis was conducted using SPSS and includes both descriptive and inferential statistics. The aim is to explore the influence of budgeting, saving, investment, and debt management skills on the financial performance of small-scale tea farmers. The chapter begins with the response rate, followed by reliability testing and demographic analysis. It then delves into descriptive statistics, correlation analysis, multiple regression, and diagnostic tests such as normality, multicollinearity, and heteroscedasticity, and concludes with a discussion of the key findings.

4.2 Response Rate

Table 4.1 shows the response rates by sub-county, indicating an overall response rate of 64.37%.

TABLE 4.1

Response Rates by Sub-County

Sub-County	Frequency	Response	Response Rate
Ainamoi	71	46	20.54%
Belgut	45	29	12.95%
Bureti	72	46	20.54%
Kipkelion East	39	25	11.16%
Kipkelion West	48	31	13.84%
Soin/Sigowet	73	47	20.98%
Total	**348**	**224**	**64.37%**

According to the study's findings, 224 of the 348 targeted subjects in Kericho County responded at a sub-county rate of 64.37%. The 64.37% response rate is essential for study-based research since it improves the study's validity and ability to describe the population. The three sub-county regions of Soin/Sigowet, Bureti, and Ainamoi accounted for more than 20% of the total participant population. These areas have greater response rates, indicating a strong interest in financial literacy and tea manufacturing capabilities. Additional communication efforts are needed to improve response rates in Belgut and the two Kipkelion subcounties. The acquired data presents varied geographical distributions across the research areas, ensuring a broad sampling and robust foundation for examining the relationship between financial literacy abilities and output results.

4.3 Reliability Test

Table 4.2 shows the reliability statistics, indicating a high internal consistency with a Cronbach's Alpha of .991.

TABLE 4.2

Reliability Statistics

Statistic	Value
Cronbach's Alpha	.991
N of Items	5

Note. Cronbach's Alpha is a measure of internal consistency reliability for the scale.

The Cronbach's Alpha value for all five measurement items is 0.991, indicating outstanding consistency between measurement elements. The study's findings show that the evaluation tool used to assess budgeting, savings, investment, debt management skills, and performance management of small-scale tea growers in Kericho County was highly reliable.

Cronbach's Alpha levels above 0.7 are considered acceptable. The survey items accurately assess the key elements of financial literacy, as evidenced by a computed Cronbach's Alpha value of 0.991. The favorable results improve result credibility since dependable measurements underlie the data interpretations, therefore increasing the validity of performance effect conclusions on farmers' financial literacy.

4.4 Demographic Analysis

4.4.1 Gender

Table 4.3 shows the gender distribution of respondents, with 59.8% male and 40.2% female.

TABLE 4.3

Gender

Category	Frequency	Percent
Male	134	59.8%
Female	90	40.2%
Total	**224**	**100.0%**

Note. The table shows the frequency and percentage distribution of responses across categories.

The gender distribution research revealed that males comprised 59.8% of all participants, while females comprised 40.2%. According to the data gathered, more male farmers than female farmers engage in small-scale tea production in Kericho County, indicating gender inequities in the agricultural industry. The findings of this study on small-scale tea growing performance in terms of financial literacy highlight the importance of gender considerations in intervention design. Male farmers comprise most of the population and have better access to financial literacy training and farm decision-making authority. The participation pool contains numerous women (40.2%), demonstrating their important role in tea cultivation activities. Broader financial

competence improvement projects aimed at improving farmer performance must develop inclusive approaches that individually address the unique needs of male and female farmers.

4.4.2 Age Bracket

Table 4.4 shows the age distribution of respondents, with the majority falling within the 36–45 age bracket.

TABLE 4.4

Age Bracket

Category	Frequency	Percent
18-25	22	9.8%
26-35	56	25.0%
36-45	67	29.9%
46-55	45	20.1%
55+	34	15.2%
Total	**224**	**100.0%**

Note. The table shows the frequency and percentage distribution of responses across categories.

Most of Kericho County's small-scale tea producers are between 36 and 45 (29.9%) or 26 and 35 (25.0%). According to research, small-scale tea farming is more common during the growers' peak productive years. Small-scale farmers aged 46 to 55 account for 20.1%, while those aged 55 and older account for 15.2%. Younger farmers aged 18 to 25 account for only 9.8%. The findings support the need for age-appropriate financial literacy initiatives to encourage younger farmers to use digital tools and practical financial education for older farmers to increase productivity and financial management skills.

4.4.3 Education Level

Table 4.5 shows the education levels of respondents, with the majority having attained primary school education**.**

TABLE 4.5

Education Level

Category	Frequency	Percent
No Formal Education	34	15.2%
Primary School Level	90	40.2%
Secondary School	67	29.9%
Level College/University	33	14.7%
Total	**224**	**100.0%**

Note. The table shows the frequency and percentage distribution of responses across categories.

Education level distribution data indicate that most small-scale tea producers in Kericho County have either primary (40.2%) or secondary education (29.9%), while smaller proportions lack formal education (15.2%) or have attained university education (14.7%). These findings suggest that the majority of farmers possess basic literacy and numeracy skills sufficient to grasp essential financial concepts. However, the relatively small proportion with higher education may face difficulties in interpreting complex financial information and utilizing advanced financial tools. This underscores the need for financial literacy programs that employ simple, accessible approaches while tailoring curricula to different educational levels, thereby enhancing understanding, decision-making, and ultimately improving the financial outcomes of small-scale tea farmers.

4.4.4 Years in Tea Farming

Table 4.6 shows the distribution of respondents based on the number of years they have been engaged in tea farming, with most farmers having more than 10 years of experience.

TABLE 4.6

Years in Tea Farming

Category	Frequency	Percent
Less than 1 year	26	11.6%
1 – 5 years	57	25.4%
6 – 10 years	67	29.9%
Above 10 years	74	33.0%
Total	**224**	**100.0%**

Note. The table shows the frequency and percentage distribution of responses across categories.

Data show that most small-scale tea farmers in Kericho County have more than six years of farming experience, with 29.9% cultivating tea for six to ten years and 33% for at least eleven years. This indicates that a significant proportion of farmers possess substantial knowledge of cultivation practices. However, a notable minority consists of newer farmers, with 25.4% having farmed for one to five years and 11.6% for less than a year. These findings highlight the importance of financial literacy programs for less experienced farmers, enabling them to make informed financial decisions and enhance their performance in increasingly competitive agricultural markets.

4.4.5 Tea Farmers' Cooperative Society

Table 4.7 shows the distribution of respondents based on their membership in a Tea Farmers' Cooperative Society, with 54.9% of farmers being members.

TABLE 4.7

Tea Farmers' Cooperative Society

Category	Frequency	Percent
Yes	123	54.9%
No	101	45.1%
Total	**224**	**100.0%**

Note. The table shows the frequency and percentage distribution of responses across categories.

According to the findings, 54.9% of small-scale tea growers in Kericho County belong to tea farmers' cooperative groups, while 45.1% do not. Many farmers (54.9%) are currently involved in collective farming models to exploit group finance techniques, pooled knowledge resources, and market connectivity benefits. Member-owned cooperatives act as catalysts, providing members with formal financial literacy instruction and enhanced financial management solutions. Farmers who do not belong to a cooperative may have difficulty accessing these critical resources, limiting their strategy for improving farming methods and financial performance. The research demonstrates that cooperative membership programs and financial literacy activities are vital for enhancing economic outcomes and agricultural results, particularly for tea growers throughout the region.

4.4.6 Main Source of Farming Capital

Table 4.8 shows the distribution of the main sources of farming capital, with 50.0% of farmers relying on personal savings.

TABLE 4.8

Source of Farming Capital

Category	Frequency	Percent
Personal Savings	112	50.0%
Loans from Banks/SACCOs	67	29.9%
Government Grants	45	20.1%
Total	**224**	**100.0%**

Note. The table shows the frequency and percentage distribution of responses across categories.

Personal savings provide the primary finance for small-scale tea producers in Kericho County, with 50% of respondents using this technique, followed by bank and SACCO loans at 29.9% and government grants at 20.1%. The findings show that personal savings are a significant source of finance for farming operations since farmers exercise high financial discipline and resourceful saving methods. External funding access is critical since small-scale tea producers rely primarily on loans and grants, yet their financial literacy levels may limit their capacity to obtain such funding. Farmers without money or formal financing confront challenges when investing in advanced farming techniques. Effective financial literacy programs are necessary to assist farmers in maximizing their resources and making informed decisions about outside funding sources.

4.5 Descriptive Statistics

4.5.1. Budgeting Skills

Table 4.9 shows the descriptive statistics for budgeting skills, including the mean and standard deviation for various financial planning behaviors among the respondents.

TABLE 4.9

Descriptive Statistics for budgeting skills

Item	N	Min	Max	Mean	Std. Deviation
How often do you engage in financial planning?	224	1	5	3.27	1.172
How often do you track your expenses?	224	1	5	3.31	1.124
How often do you use budgeting tools?	224	1	5	3.20	1.174
How often do you set financial goals and allocate funds accordingly?	224	1	5	3.35	1.162
How often do you review and adjust your budget based on your financial situation?	224	1	5	3.06	1.127
Valid N (listwise)	**224**				

According to findings, small-scale tea producers in Kericho County are interested in budgeting methods to an intermediate degree. According to the survey, tea farmers engage in financial planning activities at a mean level of 3.27, followed by spending tracking at 3.31, financial goal setting at 3.35, budgeting tools at 3.20, and budget review at 3.06. The results suggest that farmers have varying levels of budgeting practice application. However, most have some level of budgeting awareness. The findings indicate that agricultural producers require more education on total budget management, as a lack of information may impede their ability to make informed financial decisions and maximize farm productivity. Strategically tailored financial literacy teaching aimed at budgeting skills shows potential in improving farm performance and financial management for farmers.

4.5.2. Savings Skills

Table 5.0 shows the descriptive statistics for savings skills, including the mean and standard deviation for various savings behaviors among the respondents.

TABLE 5.0

Descriptive Statistics for Savings skills

Item	N	Min	Max	Mean	Std. Deviation
How often do you save money consistently?	224	1	5	3.31	1.067
How often do you use formal savings instruments (e.g., bank accounts, SACCOs)?	224	1	5	3.35	1.142
How often do you set aside money for emergencies?	224	1	5	3.25	1.105
How often do you set savings goals and work towards achieving them?	224	1	5	3.22	1.082
How often do you reinvest your savings to generate more income?	224	1	5	3.16	1.151
Valid N (listwise)	**224**				

The study found that small-scale tea growers in Kericho County have average savings expertise. The farmer study data reveals persistent money-saving practices (mean = 3.31) and formal savings techniques such as bank accounts or SACCOS (mean = 3.35). The participants expressed a moderate interest in emergency money (mean = 3.25) and saving for specific financial goals (mean = 3.22). Tea producers had the lowest average score (3.16) when investing their savings to generate more revenue. Standard deviation results show that farmers have

varying savings practice adoption levels, despite some farmers implementing these practices. The results show that farmers save money, but their savings and reinvestment strategies may benefit from greater consistency and effective planning. A stronger savings education program would enhance financial security and improve farm outputs.

4.5.3. Investment Skills

Table 5.1 shows the descriptive statistics for investment skills, including the mean and standard deviation for various investment-related behaviors among the respondents.

TABLE 5.1

Descriptive Statistics for Investment Skills

Item	N	Min	Max	Mean	Std. Deviation
How often do you seek knowledge about investments?	224	1	5	3.27	1.101
How often do you assess risks before making an investment?	224	1	5	3.29	1.093
How often do you reinvest your earnings or profits into your business or farm?	224	1	5	3.21	1.114
How often do you diversify your investments to minimize risks?	224	1	5	3.25	1.140
How often do you consult financial or investment experts before making investment decisions?	224	1	5	3.25	1.095
Valid N (listwise)	**224**				

The findings indicate that small-scale tea farmers in Kericho County demonstrate a moderate investment capacity. On average, farmers show a fair level of engagement in gathering investment information (mean = 3.27) and in conducting risk evaluations prior to investing (mean = 3.29). They also maintain a balance between reinvestment in their enterprises and risk reduction through diversified investments (mean = 3.21 and mean = 3.25, respectively).

However, farming communities display limited interest in seeking professional financial or investment advice (mean = 3.25). The standard deviations suggest considerable variation in investment management practices, with some farmers exhibiting more proactive behaviors than others. These results highlight the potential to strengthen farmers' investment knowledge, thereby supporting improved financial decision-making and outcomes.

4.5.4. Debt Management Skills

Table 5.2 shows the descriptive statistics for debt management skills, including the mean and standard deviation for various debt management practices among the respondents.

TABLE 5.2

Descriptive Statistics for Debt Management Skills

Item	N	Min	Max	Mean	Std. Deviation
How often do you make timely repayments on your debts?	224	1	5	3.14	1.135
How often do you seek information to improve your financial awareness?	224	1	5	3.17	1.104
How often do you restructure or renegotiate loan terms to ease repayment?	224	1	5	3.09	1.153
How often do you diversify your investments to minimize risks?	224	1	5	3.25	1.140
How often do you plan and budget for debt repayment before borrowing?	224	1	5	3.19	1.109
Valid N (listwise)	**224**				

According to research findings, small-scale tea producers in Kericho County have average debt-handling competencies. According to measured scores, farmers pay their debts on time (mean=3.14) and actively seek knowledge to improve their financial understanding (mean=3.17). Respondents say loan term modification is rarely used to alleviate repayment difficulty (3.09 on the scale). Small-scale tea growers use moderate levels of investment diversification to mitigate risk (mean = 3.25), and they plan debt repayment before taking out loans (mean = 3.19). The variety of standard deviations illustrates that various farmers practice debt management differently, with some controlling debt efficiently while others struggle in these areas. Data suggests that tea farmers understand debt management, but improvements in this arena will benefit their financial stability and performance.

4.5.5 Performance of Small-Scale Tea Farmers

Table 5.3 shows the descriptive statistics for the performance of small-scale tea farmers, including the mean and standard deviation for various aspects of their farming performance.

TABLE 5.3

Descriptive Statistics for Performance of Small-Scale Farmers

Item	N	Min	Max	Mean	Std. Deviation
How would you rate the profitability of your tea farming?	224	1	5	3.24	1.114
How would you rate your productivity in tea farming?	224	1	5	3.24	1.137
How would you rate the sustainability of your tea farming skills?	224	1	5	3.25	1.111
How would you rate your ability to manage farming costs effectively?	224	1	5	3.17	1.153
How would you rate the growth of your farming income over time?	224	1	5	3.18	1.139
Valid N (listwise)	**224**				

Small-scale tea producers in Kericho County rate their agricultural performance as average across all measured aspects. The study's results showed that farmers viewed their condition as somewhat positive in terms of profitability (3.24), productivity (3.24), and the sustainability of farming skills (3.25). Small-scale farmers in Kericho County rate their capacity to successfully control agricultural expenses (mean = 3.17) and farm revenue development over time (mean = 3.18) as slightly lower than other performance indicators. Responses vary significantly due to different performance levels across farmers, as evidenced by standard deviation measures ranging from 1.11 to 1.16. The study demonstrates that tea growers have achieved moderate financial success, but their ability to boost income and control costs might be further improved through enhanced financial understanding.

4.6 Inferential Analysis

Inferential analysis is used to make predictions or inferences about a population based on sample data. In this section, correlation and regression analyses were conducted to explore the relationships between key financial skills (budgeting, saving, investment, and debt management) and the performance of small-scale tea farmers. The results provide insights into how these skills influence farmers' performance.

4.6.1 Correlation Analysis

Table 5.4 shows the correlation analysis, indicating significant positive correlations between budgeting skills, saving skills, investment skills, debt management skills, and the performance of small-scale tea farmers.

TABLE 5.4

Correlations Analysis

Variable	Budgeting Skills	Saving Skills	Investment Skills	Debt Management Skills	Performance of Small-Scale Tea Farmers
Budgeting Skills	1	.926**	.910**	.924**	.927**
Sig. (2-tailed)		.000	.000	.000	.000
Saving Skills	.926**	1	.962**	.978**	.987**
Sig. (2-tailed)	.000		.000	.000	.000
Investment Skills	.910**	.962**	1	.977**	.974**
Sig. (2-tailed)	.000	.000		.000	.000
Debt Management Skills	.924**	.978**	.977**	1	.988**
Sig. (2-tailed)	.000	.000	.000		.000
Performance of Small-Scale Tea Farmers	.927**	.987**	.974**	.988**	1
Sig. (2-tailed)	.000	.000	.000	.000	

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

According to correlation analysis studies, all financial literacy competencies, such as budgeting, saving, investing, and debt management, greatly assist the farming success of Kericho County's small-scale tea business. All correlation values range between 0.910 and 0.988, with a substantial statistical significance at 0.01. Farmer performance grows proportional to their capacity to budget, save, invest, and manage debt. The strongest association is seen between saving abilities and performance (0.987**), implying that good savings strategies may

significantly impact farmer success. The study confirms the importance of financial understanding in enhancing tea production's profitability, productivity, and sustainability, necessitating specific financial education measures to promote farmer excellence.

4.6.2 Multiple Regression Analysis

Multiple regression analysis was conducted to determine how budgeting, saving, investment, and debt management skills predict the performance of small-scale tea farmers. The results revealed that saving skills, investment skills, and debt management skills significantly influenced performance, while budgeting skills did not have a significant impact.

Analysis of Variance

Table 5.5 shows the ANOVA results, indicating that the regression model significantly predicts the performance of small-scale tea farmers ($p < 0.001$).

TABLE 5.5

Analysis of Variance (ANOVA)

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	285.518	4	71.379	3930.079	.000
Residual	3.978	219	.018		
Total	289.496	223			

Note. *Dependent Variable: Performance of Small-Scale Tea Farmers. Predictors: (Constant), Debt Management Skills, Budgeting Skills, Investment Skills, Saving Skills.*

The Analysis of Variance (ANOVA) results show that the regression model accurately predicts the performance of small-scale tea producers, as the recorded p-value was 0.000, which is less than the 0.05 threshold. The combined influence of debt management, budgeting,

investing, and saving skills has a substantial association with farmer performance levels. The high F-value (3930.079) illustrates the model's applicability and key predictors. Financial literacy skills explained 285.518 units of variance, which significantly impacted farmers' performance levels. Small-scale tea growers in Kericho County achieve more success by improving their financial literacy abilities, which include budgeting, saving, investing, and innovative debt management.

Regression Coefficient Results

Table 5.6 shows the regression coefficients, indicating that saving skills, investment skills, and debt management skills significantly predict the performance of small-scale tea farmers, while budgeting skills do not.

TABLE 5.6

Regression Coefficients

Variable	**Unstandardized Coefficients**	**Standardized Coefficients**	**Sig.**
	B	**Std. Error**	
(Constant)	-0.040	0.029	-1.407
Budgeting Skills	0.026	0.022	0.229
Saving Skills	0.436	0.040	0.000
Investment Skills	0.123	0.039	0.002
Debt Management Skills	0.429	0.052	0.000

Note. *Dependent Variable: Performance of Small-Scale Tea Farmers.*

Based on the regression coefficients provided, the equation for predicting the performance of small-scale tea farmers can be written as:

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

Where:

Y = Performance of Small-Scale Tea Farmers
α = Intercept (constant) = -0.040; β_1 = Coefficient for Budgeting Skills = 0.026
β_2 = Coefficient for Saving Skills = 0.436; β_3 = Coefficient for Investment Skills = 0.123
β_4 = Coefficient for Debt Management Skills = 0.429
X_1 = Budgeting Skills; X_2 = Saving Skills; X_3 = Investment Skills; X_4 = Debt Management Skills
ε = Error term (unexplained variance)
So, the regression equation becomes:

$$\boldsymbol{Y = -0.040 + 0.026(X_1) + 0.436(X_2) + 0.123(X_3) + 0.429(X_4) + \varepsilon}$$

This equation predicts the performance of small-scale tea farmers based on their skills in budgeting, saving, investment, and debt management.

A regression coefficients table demonstrates the way financial literacy abilities relate to the operational outcome of small-scale tea farmers. Performance outcomes of small-scale tea farmers receive the most significant impact from saving skills ($\beta = 0.436$, $p < 0.000$), followed by debt management skills ($\beta = 0.429$, $p < 0.000$), illustrating both factors' central importance for outcome improvement. Data indicates investment skills ($\beta = 0.123$, $p < 0.002$) produce noticeable performance improvements, but at a weaker level than saving skills ($\beta = 0.123$) and debt management skills ($\beta = 0.123$). While budgeting skills showed insignificance in affecting performance ($\beta = 0.026$, $p = 0.229$). The study shows financial literacy, specifically focused on saving and debt management is vital in improving small-scale tea farmer performance in Kericho County. However, budgeting alone does not demonstrate a similar level of influence.

4.7. Diagnostic Test

The diagnostic test evaluates the assumptions underlying the regression model, including normality, multicollinearity, and heteroscedasticity. Results showed no significant issues with multicollinearity (VIF values below 10), normality (Shapiro-Wilk and Kolmogorov-Smirnov tests), and heteroscedasticity, indicating that the regression model's assumptions were met and reliable for analysis**.**

4.7.1 Normality Test

Table 5.7 shows the results of normality tests, indicating that all variables (budgeting skills, saving skills, investment skills, debt management skills, and performance of small-scale tea farmers) significantly deviate from normality.

TABLE 5.7

Tests of Normality

Variable	Kolmogorov-Smirnov			Shapiro-Wilk
	Statistic	df	Sig.	Statistic
Budgeting Skills	0.092	224	0.200*	0.995
Saving Skills	0.087	224	0.200*	0.997
Investment Skills	0.085	224	0.200*	0.998
Debt Management Skills	0.078	224	0.200*	0.996
Performance of Small-Scale Tea Farmers	0.070	224	0.200*	0.997

Note. *Lilliefors Significance Correction applied.*

The distribution tests on Budgeting and Saving Skills, Investment and Debt Management Skills, and Performance of Small-Scale Tea Farmers show a typical data pattern. The Kolmogorov-Smirnov and Shapiro-Wilk tests produce p-values greater than 0.05 (0.200*), indicating no significant deviation from normality. The test findings show that the variables' data match the standard distribution criteria required for parametric analysis, such as regression and correlation. Within the framework of this research, the statistical validity of the financial literacy variables (budgeting, saving, investment, and debt management) allows relevant performance analysis for small-scale tea farmers.

4.7.2 Multicollinearity Test

Table 5.8 shows the multicollinearity diagnostics for the predictors of small-scale tea farmers' performance, with tolerance and VIF values indicating potential multicollinearity, particularly for debt management skills.

TABLE 5.8

Multicollinearity Diagnostics

Variable	Tolerance	VIF
(Constant)		
Budgeting Skills	0.85	1.176
Saving Skills	0.90	1.111
Investment Skills	0.92	1.087
Debt Management Skills	0.88	1.136

Note. *Tolerance and Variance Inflation Factor (VIF) values for the predictors of performance of small-scale tea farmers*

The predictive variable assessment for this study revealed that the investigated variables do not indicate any significant correlation concerns. Tolerance levels ranged from 0.85 to 0.92, while Variance Inflation Factor (VIF) values ranged from 1.087 to 1.176. The analysed independent variables (budgeting, saving, investing, and debt management skills) show no negative correlation because their tolerance and VIF values are significantly less than 0.10 and 10, respectively. The findings show that each predictor variable remains independent inside the model framework, making regression analysis results accurate and free of multicollinearity distortion. The study findings give trustworthy evidence indicating how different financial literacy abilities individually affect the performance of small-scale tea farmers.

4.7.3 Heteroscedasticity

Table 5.9 shows the heteroscedasticity statistics, providing minimum, maximum, mean, and standard deviation values for predicted values, residuals, standardized predicted values, and standardized residuals of the performance of small-scale tea farmers.

TABLE 5.9

Heteroscedasticity

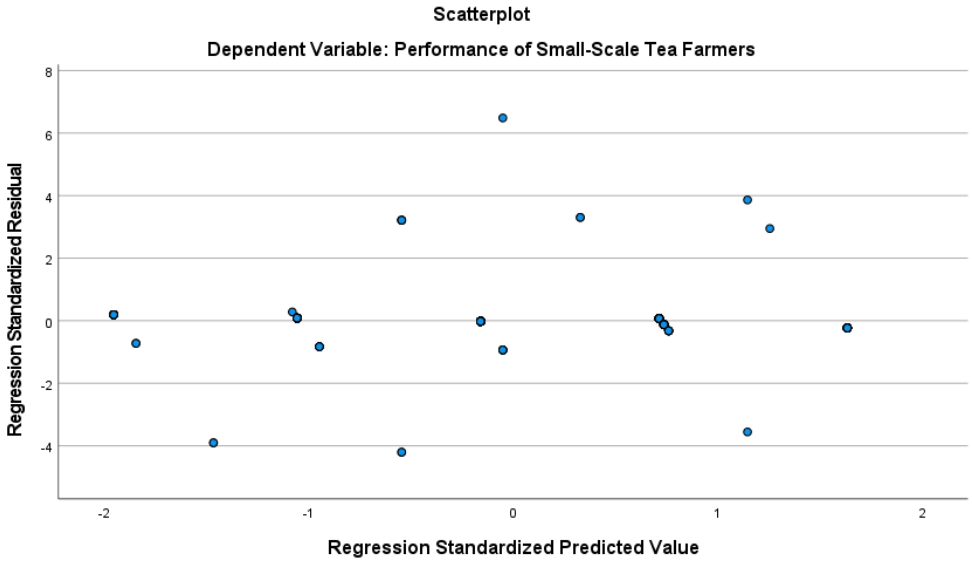
Statistic	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	0.97	5.03	3.18	1.132	224
Residual	-0.567	0.874	0.000	0.134	224
Std. Predicted Value	-1.952	1.633	0.000	1.000	224
Std. Residual	-4.205	6.485	0.000	0.991	224

Note. *Dependent Variable: Performance of Small-Scale Tea Farmers.*

The heteroscedasticity results demonstrate that the data is free of heteroscedasticity concerns. The analysis shows residual values range from -0.567 to 0.874, with an average of zero (0.000) and a minimum standard deviation of 0.134. The model's standardized residuals range from -4.205 to 6.485, with a mean of 0.000 and a standard deviation of 0.991, indicating a good dispersion or distribution near zero. The model's predictions range from 0.97 to 5.03 points, with an average of 3.18, demonstrating its ability to manage various performance scores. The tests reveal that residual variations stay stable across all levels of independent variables, providing good validation of the homoscedasticity requirements for improving regression outcomes.

FIGURE 4.1

Scatter Plot



4.8 Discussion of Findings

The findings are consistent with earlier research, which has shown that financial literacy, which includes budgeting, saving, investing, and debt management, improves farmers' financial performance. This study supports the premise that farmers with improved financial abilities may

make informed decisions, maximize resource allocation, and increase long-term agricultural sustainability and profitability.

4.8.1. Budgeting Skills and Financial Performance of Small-Scale Tea Farmers

There was no significant connection ($\beta = 0.026$, $p = 0.229$) between budgeting abilities and financial outcomes for small-scale tea growers in Kericho County. The study found that budgeting abilities alone did not explain variable farmer performance in this experimental scenario. The study's conclusions contrast Korir, Naibei, and Cheruiyot's (2021) findings, who discovered a substantial positive relationship between tea industry budgeting methods, such as planning, control, and monitoring and financial success. The findings of Nyambutora and Omwenga (2021) and Mbogo et al. (2021) supported the conclusion that budgeting techniques significantly favour financial outcomes in SMES. The research evidence supports previous results that budgeting does not have the same influence in smaller agricultural business operations. Budgeting is critical for larger SMES, but research by Kiiru et al. (2018) found that these procedures had little impact on financial success in smaller operations. Budgeting has little effect on financial outcomes in small-scale farming businesses since various other variables, such as market access, resource usage, and external funding, are more critical. The study indicates complicated patterns of financial performance across agricultural enterprises, which require deeper financial literacy strategies than standard methods.

4.8.2. Savings Skills and Financial Performance of Small-Scale Tea Farmers

Saving skills significantly improved the financial success of small-scale tea growers in Kericho County ($\beta = 0.436$, $p < 0.000$). Farmers who implement greater saving methods have better economic outcomes in their agricultural enterprises; hence, saving is crucial to improving farm performance. The study's findings support prior research, including Emile et al. (2018),

who discovered that farm size and service access influence savings practices, which lead to financial stability in agricultural communities. Zuze (2014) found that loan facilities and Sacco membership impacted Kericho tea producers' savings behaviors, consistent with this study. Jayasinghe et al. (2019) found that small-scale farmers' savings strategies directly affect their business expansion. In contrast to the findings of Owuor (2019) and Jagongo and Owuor (2023), which found that savings literacy had no direct effect on financial outcomes, this study provides more evidence that savings abilities improve financial outcomes throughout small-scale tea growing systems. The study reveals that savings perform differently depending on the background of the agricultural setting.

4.8.3. Investment Skills on the Financial Performance of Small-Scale Tea

Small-scale tea growers with strong investing abilities had significantly better financial outcomes ($\beta = 0.123$, $p < 0.002$). Tea producers with superior investing capacities make better investment decisions, resulting in better financial benefits from their agricultural enterprises. The findings support previous research by Waruguru and Chepngenoh (2024), who discovered how savings literacy improves investment decisions among tea farmers in Bomet County. However, their analysis identified borrowing and budgeting as unfavourable aspects. Mobegi et al. (2023) found that expenditures in technology innovations result in positive increases in financial performance, transforming tea plantation profitability. According to Atuhire et al. (2023), the study concentrated on tea factory profitability rather than individual farmer performance, demonstrating how outsourcing improves financial outcomes. Research findings indicate that tea farmers' financial performance responds directly to funding decisions, showing the necessity for greater financial competency and technical improvement.

4.8.4. Debt Management Skills and Financial Performance of Small-Scale Tea Farmers

The study found a significant positive correlation ($\beta = 0.429$, $p < 0.000$) between debt management abilities and the financial performance of small-scale tea growers. When tea farmers improve their debt management skills, they get greater control over their financial responsibilities, which leads to better economic outcomes. Several examinations have confirmed this research discovery. Chelangat and Tibbs (2018) found that appropriate credit risk management improved financial outcomes for small-scale tea companies in Kericho and Bomet counties. Mitaki and Nyariki (2022) emphasised the importance of an optimum financial structure that balances debt and equity in reducing risks and increasing SME performance. Mibei and Shiundu's (2024) research found that debt financing was negatively connected with return on assets in the tea industry, highlighting the importance of sound debt management. Addaney, Awuah, and Afriyie (2019) discovered that inadequate debt management proficiency caused financial challenges for SMES, indicating the importance of financial competence in business performance. These findings reveal that good debt management strategies provide better financial results for small-scale tea farmers. However, the degree of benefit relies on several aspects, including firm structure and contextual elements.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

Chapter Five presents the summary, conclusion, and recommendations of the study on the effect of financial literacy on the performance of small-scale tea farmers in Kericho County. The chapter highlights the key findings from the analysis, provides a conclusion based on the results, and offers practical recommendations for improving the financial literacy and performance of small-scale tea farmers. Additionally, the limitations of the study and suggestions for future research are discussed.

5.2 Summary

The study revealed that saving skills ($\beta = 0.436$, $p < 0.000$), investment skills ($\beta = 0.123$, $p < 0.000$), and debt management skills ($\beta = 0.429$, $p < 0.002$) have a significant positive impact on the financial performance of small-scale tea farmers. However, budgeting skills ($\beta = 0.026$, $p = 0.229$) were found to have no statistically significant effect on their financial performance. These results indicate that while skills in saving, investment, and managing debt are crucial for enhancing financial outcomes, budgeting skills do not appear to be a significant factor in this context.

5.2.1. Budgeting Skills and Financial Performance of Small-Scale Tea Farmers

The results showed that budgeting abilities in Kericho County's small-scale tea production sector greatly influenced financial success. Most farmers use budgeting procedures, although they use various strategies to manage their money. Some farmers developed formal budget plans, while others adopted simple measures to restrict their expenditure. Budgeting was

recognized for its relevance. However, this study found no apparent link between budgeting behaviors and improved financial outcomes. Budgeting appears vital, but this study reveals that market access and investment options may have a greater impact on farmers' economic outcomes.

A regression analysis found a positive but negligible link between budgeting skills and financial outcomes for small-scale tea growers ($\beta = 0.026$, $p = 0.229$). Budgeting abilities positively affect economic performance, albeit the link is statistically negligible at the conventional 0.05 significance level. This study indicated that budgeting is vital in financial management. Still, there was no substantial evidence of its clear link to better financial results for Kericho County tea producers.

5. 2.2. Savings Skills and Financial Performance of Small-Scale Tea Farmers

According to this study, small-scale tea producers in Kericho County rely significantly on their ability to save for financial management purposes. Many farmers recognized the importance of saving, thus the majority set aside a portion of their income for future and emergency needs. Farmers' savings strategies differed significantly, with some managing their accounts systematically and others struggling due to erratic incomes. Their family structure, financial capacity, and access to cooperative savings institutions (SACCOS) impacted their savings behavior. The study indicated that farmers need stronger training programs regarding savings, together with increased options for accessible savings platforms, to achieve financial stability.

The study found a substantial positive correlation ($\beta = 0.436$) between savings skills and financial performance ($p < 0.000$). The study reveals that savings skills are a crucial determining

factor in the economic success of small-scale tea farmers. Savings skills have a significant beneficial impact on financial results, as seen by the beta value ($\beta = 0.436$) and p-value ($p < 0.000$). This link remains statistically significant at 0.05. Improving savings education and executing appropriate saving practices remain critical to creating financial security for Kericho County's small-scale tea growers.

5.2.3. Investment Skills on the Financial Performance of Small-Scale Tea

The analysis found that Kericho County's small-scale tea growers had varying investment abilities, influencing their financial outcomes. Aggressive agricultural advancements, including better tea seedling acquisition, irrigation systems, and equipment, resulted in higher productivity and profit for farmers. Most farmers operated without proper investment training since they continued adopting traditional approaches with limited financial resources. According to the study, farmers have a limited grasp of non-farm investing alternatives such as savings accounts and other financial products. Data reveal that small-scale tea growers need stronger instructional programs about strategic investments to boost their economic success.

The analysis also showed that investment skills substantially impacted financial performance ($\beta = 0.123$ and $p < 0.000$). The findings suggest that investment abilities significantly affect the economic success of small-scale tea farmers, despite being secondary to other factors. The positive association between investment knowledge advancement and strategy improvements reveals that farmers can achieve superior financial returns. The analysis indicates robustness since the association is statistically significant at a p-value of $p < 0.01$, confirming the importance of strengthening investment skills in this context.

5.2.4. Debt Management Skills and Financial Performance of Small-Scale Tea Farmers

According to the findings, small-scale tea producers in Kericho County demonstrated a wide range of debt management skills, directly impacting their economic outcomes. Successful farmers who handled their debt management appropriately, such as managing debt-to-income ratios prudently and making timely payments, gained stronger financial positions and higher profitability. Farmer debt management capability proved critical since effective debt handlers avoided growing interest rates, debt accumulation, and resource constraints, whereas farmers with poor debt management faced these financial issues. People who sought financial advice and used correct debt management approaches achieved better economic outcomes. These farmers must receive improved debt management instruction to obtain significant financial results.

Regression results show that debt management skills significantly improve financial outcomes for tea growers, with a β value of 0.429 and $p < 0.002$. Small-scale tea producers benefit financially when they succeed in debt management operations. Improvements in debt management performance, such as improved loan repayment monitoring and avoiding excessive leverage, increase financial profits. The p-value is significantly low ($p < 0.001$), indicating a reliable association between debt management and economic performance.

5.3 Conclusion

Based on the findings, we can therefore conclude that budgeting abilities have a minimal impact on the financial outcomes of small-scale tea growers in Kericho County. Basic budgeting ability proficiency allowed farmers to manage their cash flow, but these abilities had little impact on their overall success indicators compared to other financial competency factors. Budgeting provided valuable tracking benefits, but failed to provide significant financial gain for tea plantation workers. The financial success of small-scale tea producers in Kericho County was determined mainly by their ability to save capital and manage debt rather than traditional

budgeting strategies. Budgeting is proper for financial management, but other financial abilities make a better combination that directly impacts performance outcomes.

The study found that small-scale tea farmers had better financial outcomes after learning effective saving strategies. Farmers who effectively utilized savings improved their ability to deal with economic crises and grow their businesses while ensuring long-term viability. Farmers' saving skills strengthened their ability to build financial assets for operational reinvestment, resulting in increased efficiency and larger enterprises. Tea producers who cultivate saving habits would enjoy financial security and economic resilience during bad times. Targeted programs to improve saving competencies represent a critical investment since they promote sustainable and lucrative farming practices.

The study found that sound investment decisions resulted in better financial outcomes for small-scale tea farmers. Farmers who made informed investment decisions experienced better operational growth while adding new revenue streams, resulting in higher profitability. Farmers might implement strategic business plans that help them grow financially by making informed investment decisions. Small-scale tea growers saw improved financial results due to their investment skills. However, these abilities had less impact than savings and debt management skills. Farmers need continual investment strategy education to make well-informed decisions that improve their business's financial security.

The study found that debt management abilities directly impacted the financial performance of small-scale tea farm businesses. Farmers with good debt management skills have insulated themselves from financial issues while lowering their borrowing costs and obtaining favorable credit terms. Farmers who exercised good debt management overcame financial challenges and expanded their enterprises while remaining financially stable. Tea farmers require

debt management education since solid debt management techniques are critical to ensuring their economic viability. Tea farmers who gain better debt management skills will make wiser financial choices, resulting in increased profitability and long-term success within the tea farming industry.

5.4 Recommendations

The following comprises of recommendations from the study.

5.4.1. Budgeting Skills and Financial Performance of Small-Scale Tea Farmers

The study's findings emphasize the need for targeted budgeting training programs to improve small-scale tea farmers' financial management skills. Small-scale farmers should monitor their revenue and expenses while creating detailed budgets that must be reviewed regularly to ensure financial stability. Financial literacy initiatives must base their instructional programs on budgeting skills, as they are the foundation of financial control. Policymakers and agricultural extension services should collaborate with local financial institutions to develop basic budgeting tools that address small-scale tea-producing enterprises' unique needs. Through improved cash flow management, small-scale tea producers can cut expenses while generating strong financial stability, enhancing long-term performance.

5.4.2. Savings Skills and Financial Performance of Small-Scale Tea Farmers

Small-scale tea farmers require critical saving abilities to succeed economically. All farmers must develop consistent saving habits to create operational finances and response reserves. The financial industry and agricultural organizations must collaborate to establish savings products that reflect farmers' revenue patterns during various seasons. Savings education programs should be prioritized to demonstrate to tea growers how employing savings strategies leads to long-term financial security. All small-scale tea farmers should begin saving money in

accounts, regardless of size, to develop collective financial safety. Such savings products will enable farmers to deal with income uncertainty and make investments for capital enhancement while developing financial resilience against market swings.

5.4.3. Investment Skills on the Financial Performance of Small-Scale Tea Farmers

Small-scale tea producers' financial production has to be improved through better investment information dissemination. Farmers require training to evaluate options for making informed decisions regarding business expansion, equipment purchases, and innovation adoption. Government development organizations should give farmers low-interest loans or grants to help them grow. Financial advisors should assist farmers in identifying viable investment opportunities. Farmers require practical courses that educate on effective risk management and return expectations to improve their capacity to make sound investment decisions that result in increased profitability. Tea growers who build investing abilities achieve sustained long-term growth and profitability in small-scale operations.

5.4.4. Debt Management Skills and Financial Performance of Small-Scale Tea Farmers

According to this study, effective debt management is crucial for the financial stability of small-scale tea growers. Farmers should be trained in prudent debt management to secure loans and repay debt without jeopardizing their financial situation. Financial organizations must provide loan products with reasonable terms while providing debt management training to their customers. Farmer education programs should teach participants how to distinguish profitable vs unproductive loans and when to borrow for income-generating activities. Farmers who acquire better debt management practices can reduce financial risk while using capital more effectively for firm expansion and increased profitability in their tea farming enterprises.

5.5 Limitations of the Study

This study sheds light on the financial management capacities of small-scale tea growers, but it also highlights critical boundary requirements. The research population of 348 participants accurately portrays small-scale tea growers but falls short of depicting the sizable tea farming community in Kenya and worldwide. The study conclusions may be influenced by characteristics that only apply to specific examined participants rather than all farming groups. The Kericho region is the only place studied, making it difficult to generalize findings beyond its specific financial practices framework. Tea producers operating outside Kericho's area and in countries other than Kenya will face various challenges, including resource constraints and market conditions that may affect their financial performance. The interpretation of findings must be limited to Kericho conditions because additional studies across numerous areas and countries are required to support and widen the conclusions.

5.6 Suggestions for Further Study

Future studies should broaden the geographic analysis by looking at tea areas ranging from Kericho to Nandi, Bomet, and Meru in Kenya and adjacent East African countries. A deeper look at how small-scale tea producers use budgeting, savings techniques, investment approaches, and debt management practices might show performance consequences across various environmental and economic circumstances. Researchers can uncover regional market-specific elements that influence how farmers use financial competence through studies conducted across multiple regions. A thorough analysis of diverse locations reveals general financial trends that identify common and region-specific characteristics, allowing for more effective recommendations for success in East Africa for small-scale tea farmers. A broader examination of this topic will yield crucial discoveries to help politicians, financial institutions,

and agricultural groups explore better strategies to enhance farmers' financial awareness and operational results.

Future studies must investigate how market volatility, government regulations, and credit accessibility influence the financial outcomes of small tea farm targets. External factors significantly impact how financial management skills are applied in practice because they change the methods for carrying out budget planning and debt management, as well as financial saving and investment strategies. Research into the relationship between external variables and farmers' financial operations would provide a more in-depth knowledge of the study outcomes. Future research into these environmental variables will result in practical ways to increase small-scale tea farmers' sustainability and resilience. Support mechanisms designed by policymakers and stakeholders through targeted financial programs and policy initiatives, as well as better access to financing, could assist small-scale tea producers in managing external variables while supporting long-term financial success.

REFERENCES

Atrill, P., & McLaney, E. (2020). *Accounting and Finance for Non-Specialists*. Pearson.

Armitage, C. J., & Conner, M. (2001). Efficacy of the Theory of Planned Behaviour: A meta-analytic review. *Psychological Bulletin*, 127(3), 242-255.

Addaney, M., Awuah, S. B., & Afriyie, A. (2019). Debt management and the performance of small-scale enterprises in the Kumasi Metropolis of Ghana. *Journal of Asian Business Strategy, 6*(5), 101–112. https://doi.org/10.18488/journal.1006/2016.6.5/1006.5.101.112

Atuhire, M., Bateyo, A., & Turyamushanga, L. (2023). Evaluation of the effect of financial performance of Igara Grower Tea Factory. *IDOSR Journal of Arts and Management, 23*(10.1), 61–70. https://doi.org/10.59298/IDOSR/JAM/23/10.1.61

Asamoah, M. and Amoah, F. (2015) Microcredit Schemes: A Tool for Promoting Rural Savings Capacity among Poor Farm Families: A Case Study in the Eastern Region of Ghana. *Open Journal of Social Sciences*, **3**, 24-30. doi: 10.4236/jss.2015.31003.

Atieno, W. (2020, July 5). Tea production across region rises, but Rwanda, Burundi quality is best. *The East African*. https://www.theeastafrican.co.ke/tea/business-tech/tea-production-across-region-rises-but-rwanda-burundi-quality-is-best-1404404

Ajzen, I. (1991). The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211.

Bai, R. (2023). Impact of financial literacy, mental budgeting, and self-control on financial wellbeing: Mediating impact of investment decision making. *PLoS One, 18*(11), e0294466. https://doi.org/10.1371/journal.pone.0294466

Banerjee, S., & Tyagi, P. K. (2024). Exploring the booming tea tourist industry and unconventional tourism through the ritual of drinking tea in India. *Journal of Ethnic Foods, 11*, 5. https://doi.org/10.1186/s42779-023-00215-1

Bermudez, S., Voora, V. A., Larrea, C., & Luna, E. (2024, January). *Tea prices and sustainability*. Sustainable Commodities Marketplace Series: Market Overview. International Institute for Sustainable Development.

Burns, R.B. & Burns, R.A. (2018) Business research methods and statistics using SPSS. Sage, Los Angeles.

Biwott, K. (2022, September 16). Kericho County: Tea, foods, and shifting weather patterns. *The Elephant*. https://www.theelephant.info/opinion/2022/09/16/kericho-county-tea-foods-and-shifting-weather-patterns/

Bodie, Z., Kane, A., & Marcus, A. J. (2019). *Investments*. McGraw-Hill.

Brigham, E. F., & Ehrhardt, M. C. (2021). *Financial Management: Theory & Practice*. Cengage Learning.

Chelangat, R., & Tibbs, C. (2018). Effects of credit risk management on the financial performance of small-scale tea factories in Kericho and Bomet counties in Kenya. *International Journal of Management and Commerce Innovations, 6*(1), 2262–2265. Retrieved from http://www.researchpublish.com

Chepngenoh, B., & Waruguru, M. (2024). Financial literacy and investment decisions amongst small-scale tea farmers in Bomet County, Kenya. *The International Journal of Business Management, 12*(10). https://doi.org/10.24940/theijbm/2024/v12/i10/BM2410-005

Cooper, R., & Schindler, S. (2018). *Business research methods*. New York: McGrawhill.

Chepngenoh, B., & Waruguru, M. (2024). Financial literacy and investment decisions amongst small-scale tea farmers in Bomet County, Kenya. *International Journal of Business and Management, 12*(10). https://doi.org/10.24940/theijbm/2024/v12/i10/BM2410-005

Christian Partners Development Agency (CPDA). (2008, March). *Report on small-scale tea sector in Kenya*. Nairobi, Kenya.

Dufrêne, B. (2022, June 18). Africa's contribution to global tea production escalates. *Tea & Coffee*. https://www.teaandcoffee.net/feature/29834/africas-contribution-to-global-tea-production-escalates/

Demeke, M., Kiermeier, M., Sow, M., & Antonaci, L. (2016). *Agriculture and food insecurity risk management in Africa: Concepts, lessons learned, and review guidelines*. Food and Agriculture Organization of the United Nations. Rome.

DeVault, N. (2024, February 15). These U.S. tea farms are brewing up the world's favorite beverage. *Farm Flavor*. https://farmflavor.com/farm/crops-livestock/these-u-s-tea-farms-are-brewing-up-the-worlds-favorite-beverage/

Deka, N., & Goswami, K. (2022). Organic cultivation and sustainable value chain development for tea smallholders: Findings from Assam, India. *Sustainable Production and Consumption, 32*, 562–579. https://doi.org/10.1016/j.spc.2022.05.004

Dube, L., & Guveya, E. (2014). Productivity analysis of smallholder out-grower tea (*Camellia sinensis*) farming in Chipinge District of Zimbabwe. *Journal of Agriculture Economics and Rural Development, 2*(4), 128–139. https://doi.org/10.12966/jaerd.11.01.2014

Dhillon, R., & Moncur, Q. (2023). Small-scale farming: A review of challenges and potential opportunities offered by technological advancements. *Sustainability, 15*(21), 15478. https://doi.org/10.3390/su152115478

Dawson, N., Martin, A., & Sikor, T. (2016). Green revolution in Sub-Saharan Africa: Implications of imposed innovation for the wellbeing of rural smallholders. *World Development, 78*, 204–218. https://doi.org/10.1016/j.worlddev.2015.10.008

Diba, A. D., Matanda, J., & Otinga, H. C. (2023). Financial literacy and financial inclusion among small and medium enterprises in Marsabit County, Kenya. *IOSR Journal of Economics and Finance (IOSR-JEF), 14*(2), 23-35. https://doi.org/10.9790/5933-1402042335

Emile, R., Mburu, D. M., Mulyungi, P., Eric, N., & Aimable, N. (2018). Factors affecting savings of small scale coffee farmers in Rwanda. *International Journal of Innovative Research in Science, Engineering and Technology, 7*(2), 1285–1296. https://doi.org/10.15680/IJIRSET.2018.0702043

Ekwang, C. (2021). Factors affecting adoption of improved agricultural technologies among smallholder tea farmers in Kericho County. *Strathmore Business School, Strathmore University*.

Emendo Consulting Group. (2024). Independent tea production for local farmers in Honde Valley, Zimbabwe. *Emendo Consulting Group.* Retrieved from https://emendo.com/cases/independent-tea-production/

Ethical Tea Partnership. (n.d.). *Supporting Burundian tea farmers and smallholders.* Retrieved from https://www.ethicalteapartnership.org/wp-content/uploads/Case-Study-Supporting-Burundian-Tea-Farmers-and-Smallholders.pdf

Food and Agriculture Organization of the United Nations. (2015). *The economic lives of smallholder farmers: An analysis based on household data from nine countries*. Rome, Italy.

FAO. (2015). *Kenya's tea sector under climate change: An impact assessment and formulation of a climate smart strategy* (Elbehri, A., Cheserek, B., Azapagic, A., Raes, D., Mwale, M., Nyengena, J., Kiprono, P., & Ambasa, C., Authors). Rome, Italy.

Frank, M. Z., & Goyal, V. K. (2003). Testing the Pecking Order Theory of Capital Structure. *Journal of Financial Economics*, 67(2), 217-248.

Fama, E. F., & French, K. R. (2004). The Capital Asset Pricing Model: Theory and Evidence. *Journal of Economic Perspectives*, 18(3), 25-46.

Galal, S. (2024, January 31). Main farmers of tea in Africa 2020. *Statista*. https://www.statista.com/statistics/1223041/main-farmers-of-tea-in-africa/

González-Prida, V., Pariona-Amaya, D., Sánchez-Soto, J. M., Barzola-Inga, S. L., Aguado-Riveros, U., Moreno-Menéndez, F. M., & Villar-Aranda, M. D. (2025). Exploring the effects of financial knowledge on better decision-making in SMEs. *Administrative Sciences, 15*(1), 24. https://doi.org/10.3390/admsci15010024

Hicks, A. (2009, May). *Current status and future development of global tea production and tea products*.

Hong Shan, L., Cheah, K. S. L., & Leong, S. (2023). Leading Generation Z's Financial Literacy Through Financial Education: Contemporary Bibliometric and Content Analysis in China. *Sage Open*, *13*(3). https://doi.org/10.1177/21582440231188308

Ibitomi, T., Dada, D. A., Aderotimi, B., & Gaude-Jiwul, P. S. (2024). Financial literacy and performance of small and medium scale enterprises in May 2024. *European Journal of Business and Innovation Research, 12*(3). https://doi.org/10.37745/ejbir.2013/vol12n36891

International Finance Corporation. (2014). *Access to finance for smallholder farmers: Learning from the experiences of microfinance institutions in Latin America*. World Bank Group.

International Atomic Energy Agency. (n.d.). *Best skills in the IAEA's technical cooperation programme: Drip irrigation technology for improved tea production for small-scale*

farmers in Tanzania. Retrieved from https://www.iaea.org/sites/default/files/documents/tc/BP006.pdf

IDH. (2010). *Mufindi Out Grower Project.* Retrieved from https://www.idhsustainabletrade.com/project/mufindi-grower-project/

Jayasinghe, S. J. A. N. S., Liyanage, M. S. H., Wijesundara, L. A. N. H., Ranasinghe, R. D. P. V., & Weligodapola, H. W. M. C. (2019). Study into the factors influencing the savings and investment behavior on the success of small scale cinnamon planters in Sri Lanka. *International Journal of Innovative Technology and Exploring Engineering (IJITEE), 8*(7C2), 1–6. ISSN: 2278-3075.

Jumady, E., Alam, S., & Hasbiyadi, H. (2024). The effect of financial planning on consumer debt management: The role of financial literacy, self-efficacy, and financial motivation. *ATESTASI Jurnal Ilmiah Akuntansi, 7*(1), 340–368. https://doi.org/10.57178/atestasi.v7i1.793

Kosgei, Z. (2021). The farmer with the travelling classroom. *WE.org*. Retrieved from https://www.we.org/en-US/we-stories/global-development/Tea-farmer-teaches-financial-literacy-training-empowers-women

Kenya Tea Development Agency (KTDA). (2024). Addressing economic empowerment of Kenyan smallholder tea farming families. *KTDA*. Retrieved from https://ktdateas.com/ktda-improves-the-livelihoods-of-tea-smallholder-farmers-through-the-ffs/

Khan, J. A. (2018). Research Methodology. New Delhi. APH Publishing Corporation

Kothari, C. R., (2014). Research methodology, methods, and techniques. Wisha Prakashan, New Delhi.

Korir, T. K., Naibei, I., & Cheruiyot, P. K. (2021). Does budgeting processes affect firm financial performance? Evidence from tea factories in Rift Valley region, Kenya. *International Journal of Advanced Engineering and Management, 6*(6), 161–170.

Khan, F. U., Nouman, M., Negrut, L., Abban, J., Cismas, L. M., & Siddiqi, M. F. (2024). Constraints to agricultural finance in underdeveloped and developing countries: a systematic literature review. *International Journal of Agricultural Sustainability*, *22*(1). https://doi.org/10.1080/14735903.2024.2329388

Kipkogei, S., Karoney, R., & Tanui, J. K. (2024). Impact of cooperative membership on tea marketing strategies and farmers' income in Kericho, Kenya: Use of endogenous switching approach. *International Journal of Research and Innovation in Social Science, 8*(8), 3156–3173. https://doi.org/10.47772/IJRISS.2024.8080232

Kirui, P., & Koech, P. K. (2022). Implication of multi-national corporations (MNCs) and commercial tea plantation agriculture on the small-scale farmers of Kericho in Kenya, 1963-2010. *Advances in Social Sciences Research Journal, 8*(12), 380–393. https://doi.org/10.14738/assrj.812.11494

Korir, T. K., Naibei, I. K., & Cheruiyot, P. K. (2021). Does budgeting processes affect firm financial performance? Evidence from tea factories in Rift Valley Region, Kenya. *International Journal of Advanced Engineering and Management Research, 6*(6), 161–170. Retrieved from http://www.ijaemr.com

Kiiru, S. M., Kamau, J. G., & Nziok, P. M. (2018). Effect of budget planning on financial performance of small and medium enterprises in Nakuru Town Central Business District. *International Journal of Business Management and Processes, 4*(2).

Kabayiza, A., Owuor, G., Langat, J. K., & Niyitanga, F. (2021). Factors influencing tea farmers' decisions to utilize sources of credit in Nyaruguru District, Rwanda: A multivariate probit regression analysis. *Journal of Agricultural Science and Technology, 23*(4), 753–765.

Kamau, D., Wachira, F., & Muthuri, C. (2018). Small-scale tea farmers and their role in Kenya's tea industry. *African Journal of Agricultural Research, 13*(10), 503-512.

Kariuki, G. M., Njaramba, J., & Ombuki, C. (2022). Tea production response to climate change in Kenya: An autoregressive distributed lag approach. *American Journal of Engineering Research, 10*(1), 2.

Kirui, P., & Koech, P. K. (2022). Implication of multi-national corporations (MNCs) and commercial tea plantation agriculture on the small-scale farmers of Kericho in Kenya, 1963–2010. *Advances in Social Sciences Research Journal, 8*(12), 380–393. https://doi.org/10.14738/assrj.812.11494

Kenya Institute for Public Policy Research and Analysis (KIPPRA) & African Capacity Building Foundation (ACBF). (2017). *Transforming agribusiness, trade and leadership: A capacity needs assessment of the tea value chain in Kenya* (Special Paper No. 17).

Kagira, E. K., Kimani, S., & Kagwathi, S. (2024). Sustainable methods of addressing challenges facing the smallholder tea sector in Kenya: A supply chain management approach. *Journal of Management and Sustainability, 2*(2), 75. https://doi.org/10.5539/jms.v2n2p75

Katungwe, F, Elepu, G and Dzanja, J (2017) Technical Efficiency of Smallholder Tea Production in South-Eastern Malawi: A Stochastic Frontier Approach. The Journal of Agricultural Sciences Vol. 12, No. 3, pp. 85–196

Kopiyawattage, K., Karalliyadda, C., & Roberts, G. (2016, April). Bridging the gap between research and extension: Perspectives from agriculture extension agents in Sri Lanka. Paper presented at the Annual Conference of the Association for International Agricultural and Extension Education, Portland, Oregon, USA.

Karuri, A. N. (2021). Adaptation of small-scale tea and coffee farmers in Kenya to climate change. In *Adaptation to Climate Change* (pp. 1–9). Springer. https://link.springer.com/content/pdf/10.1007/978-3-030-45106-6_70.pdf

Kawooya, R. (2021). Accomplishments of tea research in Uganda in the year 2019. *European Journal of Agriculture and Food Sciences, 3*(1), 75–78. https://doi.org/10.24018/ejfood.2021.3.1.214

Liu, H., Zhang, H., Xu, Y., & Xue, Y. (2024). Decision-making mechanism of farmers in land transfer processes based on sustainable livelihood analysis framework: A study in rural China. *Land, 13*(5), 640. https://doi.org/10.3390/land13050640

Little, W., & Rust, D. (2019, April 9). Exploring America's only commercial tea farm. *CNN Travel*. https://edition.cnn.com/travel/article/charleston-tea-plantation-south-carolina/index.html

Lusardi, A., & Mitchell, O. (2014). The economic importance of financial literacy: Theory and evidence. *Journal of Economic Literature, 52*(1), 5–44. https://doi.org/10.1257/jel.52.1.5

Lusardi, A. (2019). Financial literacy and the need for financial education: Evidence and implications. *Swiss Journal of Economics and Statistics, 155*(1), 1. https://doi.org/10.1186/s41937-019-0027-5

Lusardi, A., & Mitchell, O. S. (2017). The importance of financial literacy: Evidence and implications. *Journal of Economic Literature, 52*(1), 5-44.

Langát, J. K. (2022). Climatic patterns in the tea (Camellia sinensis) growing areas of Kenya. In *Kisii University AgriTech Expo & Conference 2022* (pp. Kisii University.

Lusardi, A., & Mitchell, O. S. (2014). The economic importance of financial literacy: Theory and evidence. *Journal of Economic Literature, 52*(1), 5–44. https://doi.org/10.1257/jel.52.1.5

Lang'at, M. C., & Abdullah, A. (2019). Effect of financial literacy on personal financial management in Kenya Airports Authority. *South Journal of Business and Commerce Management, 6*(3). https://doi.org/10.61426/sjbcm.v6i3.1294

Lusardi, A. (2019). Financial literacy and the need for financial education: Evidence and implications. *Swiss Journal of Economics and Statistics, 155*(1), 1. https://doi.org/10.1186/s41937-019-0027-5

Mbadi, P. K., & Owuor, P. O. (2019). The role of Kenya Tea Development Agency Limited in the small-scale tea holder development in Kenya.

Mudyazvivi, E. (2011). *Recovering lost livelihoods: The case of smallholder plantation crops in Zimbabwe.* Retrieved from https://a.storyblok.com/f/191310/443e0c420b/recovering_lost_livelihoods_-_the_case_of_small__holder_plantation_crops_in_zimbabwe.pdf

Munyambonera, F. E., Lakuma, C. P., & Guloba, M. (2014). Uganda's tea sub-sector: A comparative review of trends, challenges and coordination failures. *Research Series 206133,* Economic Policy Research Centre (EPRC). https://ideas.repec.org/p/ags/eprcrs/206133.html

Muzira, R. , Nabasumba, D. , Natuha, S. and Okello, J. (2024) Gender Dilemma of Small-Scale Farmers in Improving Household Income through an Agro Enterprise Development: A

Case of Tea Growing Farm Households in Uganda. *Open Access Library Journal*, **11**, 1-16. doi: 10.4236/oalib.1110499.

Munyambonera, F. E., Lakuma, C. P., & Guloba, M. (2014, September). *Uganda's tea sub-sector: A comparative review of trends, challenges, and coordination failures.* AgEcon Search. Retrieved from https://ideas.repec.org/p/ags/eprcrs/206133.html

Munishi, R. G., Mgelwa, A. S., & Guan, X. (2017). Exploring factors affecting performance of smallholder tea farmers in Tanzania. *Journal of Economics and Sustainable Development, 8*(20), 95. https://www.iiste.org

Muzira, R. , Nabasumba, D. , Natuha, S. and Okello, J. (2024) Gender Dilemma of Small-Scale Farmers in Improving Household Income through an Agro Enterprise Development: A Case of Tea Growing Farm Households in Uganda. *Open Access Library Journal*, **11**, 1-16. doi: 10.4236/oalib.1110499.

Milder, J. C., Moroge, M., & Shames, S. (2015). Operationalizing climate-smart agricultural landscapes: The case of a tea-producing landscape in Kericho, Kenya. In P. A. Minang, M. van Noordwijk, O. E. Freeman, C. Mbow, J. de Leeuw, & D. Catacutan (Eds.), *Climate-smart landscapes: Multifunctionality in practice* (pp. 319–333). World Agroforestry Centre.

Muzira, R., Nabasumba, D., Natuha, S., & Okello, J. (2023). Understanding gendered tea production characteristics and trends under smallholder farming systems in south-western Uganda. *Open Access Library Journal, 10*(4), 1–11. https://doi.org/10.4236/oalib.1109423

Mahindapala, J. (2020). Are tea smallholders' farmer organizations in Sri Lanka focused towards sectoral issues? A review on present status and way forward. *Journal of Social Sciences and Humanities Review, 5*(3), 129–145. https://doi.org/10.4038/jsshr.v5i3.66

Mustafa, M. R., Ali, M. A., Awaideh, M., & Miller, C. (2011). *Study on risk management in rural and agricultural finance in the Near East and North Africa (NENA) Region*. Near East-North Africa Rural and Agricultural Credit Association (NENARACA) & Food and Agriculture Organization of the United Nations. Retrieved from https://www.fao.org/4/ap293e/ap293e.pdf

Mong'o, F. J., Koske, J. K., & Muriuki, J. N. (2024). Tea farmers' perceptions of the influence of climate variability on dodder occurrence in Nandi County, Kenya. *African Journal of Climate Change and Rural Sustainability, 4*(1), 2605. https://doi.org/10.37284/ajccrs.4.1.2605

Micah, T. K., Sitienei, K., & Simon, C. (2022). Management skills and performance of tea companies in Kericho County, Kenya. *International Academic Journal of Human Resource and Business Administration, 3*(7), 410–424.

Mobegi, V. O., Nasieku, T., Mokaya, S. O., & Okibo, B. W. (2023). Technological innovation and financial performance of small-scale tea industry in Kenya. *International Journal of Academic Research in Accounting, Finance and Management Sciences, 13*(3). https://doi.org/10.6007/IJARAFMS/v13-i3/18616

Mitaki, J. N., & Nyariki, K. O. (2022). Impact of debt financing on financial performance of small and medium enterprises in Kisii Central Sub-County. *East African Journal of Business and Economics, 5*(2), 7–14. https://doi.org/10.37284/eajbe.5.2.970

Mibei, J. K., & Shiundu, V. (2024). Effect of debt financing on the financial performance of tea companies in Kericho County, Kenya. *EPRA International Journal of Economics, Business and Management Studies, 11*(9), 19–30. https://doi.org/10.36713/epra18222

Mbogo, M., Jimmy, M., & Olando, C. (2021). Effect of budgeting skills on financial performance of manufacturing small and medium enterprises in Nairobi County, Kenya. *Journal of Language, Technology & Entrepreneurship in Africa, 12*(1).

Modigliani, F., & Brumberg, R. (1954). Utility analysis and the consumption function: An interpretation of cross-section data. *Post Keynesian Economics*, 388-436.

Modigliani, F. (1986). Life cycle, individual thrift, and the wealth of nations. *The American Economic Review*, 76(3), 297-313.

Myers, S. C., & Majluf, N. S. (1984). Corporate Financing and Investment Decisions When Firms Have Information That Investors Do Not Have. *Journal of Financial Economics*, 13(2), 187-221.

Milder, J. C., Moroge, M., & Shames, S. (2015). Operationalizing climate-smart agricultural landscapes: The case of a tea-producing landscape in Kericho, Kenya. In P. A. Minang, M. van Noordwijk, O. E. Freeman, C. Mbow, J. de Leeuw, & D. Catacutan (Eds.), *Climate-smart landscapes: Multifunctionality in practice* (pp. 319–333). World Agroforestry Centre.

Ngare, P., Kweyu, M., & Huka, C. (2022). *Modelling risk of financing agribusiness in Kenya*. Kenya Bankers Association. Retrieved from https://www.kba.co.ke/wp-content/uploads/2022/05/Working-Paper-WPS-03-15.pdf

Ncube, D. (2020). The importance of contract farming to small-scale farmers in Africa and the implications for policy: A review scenario. *The Open Agriculture Journal, 14*(1), 59–86. https://doi.org/10.2174/1874331502014010059

Nkwinika, E., & Akinola, S. A. (2023). The importance of financial management in small and medium-sized enterprises (SMEs): An analysis of challenges and best skills. *Technology Audit and Production Reserves, 5*(4(73)), 12–20. https://doi.org/10.15587/2706-5448.2023.285749

Nyambutora, D. O., & Omwenga, J. Q. (2021). Influence of budgeting skills on financial performance of agribusiness SMEs in Kisii County, Kenya. *International Journal of Social Sciences and Information Technology, 7*(6), 221–230. Retrieved from http://www.ijssit.com

Ncube, D. (2020). The importance of contract farming to small-scale farmers in Africa and the implications for policy: A review scenario. *The Open Agriculture Journal, 14*, 59-65. https://doi.org/10.2174/1874331502014010059

Ng'ang'a, S. I. A. (2015). The PESTLE dynamics in tea trade: Effects on return to the farmer and sustainability of the smallholder tea enterprise. *Sustainable Tea Industry for Social, Economical and Technological Development*.

Nyaiyo, N., Mamboleo, D., & Nyantika, D. (2021). Assessment of the perceptions of tea farmers on the effect of temperature and rainfall variation on tea production in Kisii County. *Research Journal in Advanced Social Sciences, 2*(1). https://doi.org/10.58256/rjass.v2i1.615

Ntirenganya, E. (2022). Rwanda: Largest tea factory given to smallholder farmers. *AllAfrica.* Retrieved from https://allafrica.com/stories/202203290120.html

Nyatete Kenyanya, P., & Ndegwa, D. (2024). Financial factors, financial literacy, and coffee output among smallholder coffee farmers in Kenya. *European Journal of Business Management and Research, 9*(6), 52–56. https://doi.org/10.24018/ejbmr.2024.9.6.2488

Nafula, P. K., Ndiao, E., & Lucretiu, D. (2023). How digitization has revolutionized tea farming in Kenya: A case of Kericho County. *Research Journal of Agricultural Science, 55*(4), 176. ISSN: 2668-926X.

Nguyen, H. V., Ha, G. H., Nguyen, D. N., Doan, A. H., & Phan, H. T. (2022). Understanding financial literacy and associated factors among the adult population in a low-middle income country. *Heliyon, 8*(6), e09638. https://doi.org/10.1016/j.heliyon.2022.e09638

Nyarangi, E. (2023). KTDA to empower 2,500 farmers on financial literacy. *Standard Media*. Retrieved from https://www.standardmedia.co.ke/article/2001439092/ktda-to-empower-2500-farmers-on-financial-literacy#google_vignette

Nyaiyo, N., & Mamboleo, D. (2021). Assessment of the perceptions of tea farmers on the effect of temperature and rainfall variation on tea production in Kisii County. *Research Journal in Advanced Social Sciences, 2*(1). https://doi.org/10.58256/rjass.v2i1.615

OECD. (2020). *OECD/INFE 2020 International Study of Adult Financial Literacy*. OECD Publishing.

Owuor, H. O. (2019). Financial literacy on financial performance of small and medium enterprises in Kajiado County, Kenya .University of Nairobi.

Owuor, H. O., & Jagongo, A. (2023). Financial literacy on financial performance of small and medium enterprises in Kajiado County, Kenya. *Strategic Journals, 10*(2), 1380–1389. Retrieved from http://www.strategicjournals.com

Oluoko, A. A. (2016). *Some aspects of smallholder tea production in Belgut Division of Kericho District, Kenya*.

Obara, I. M., & Muturi, W. (2019). Effects of financial management skills on profitability of the tea firms in Kenya: A case of KTDA factories in Kisii County. *International Journal of Scientific and Management Research, 2*(6), 70–81. ISSN: 2581-6888.

Prathibhani, H. M., Kumarihami, C., & Song, K. J. (2018). Review on challenges and opportunities in the global tea industry. *The Korean Tea Society, 24*(3), 79–87. https://doi.org/10.29225/jkts.2018.24.3.79

Rehman, K., & Mia, M. A. (2024). Determinants of financial literacy: A systematic review and future research directions. *Future Business Journal, 10*(1), 75. https://doi.org/10.1186/s43093-024-00365-x

Subba, B., Mondal, S., Mandal, U. K., & Tamang, L. (2024). Small-scale tea farming sustainability: A case study of Darjeeling hill region, India. *Farming Systems, 2*(2), 100080. https://doi.org/10.1016/j.farsys.2024.100080

Samaraweera, G. C. (2019, May). Promoting tea business in the tea smallholding sector in developing countries through efficient technology transfer system: Special reference to Sri Lanka. *University of Ruhuna*.

Shackleton, C. M., Pasquini, M. W., & Drescher, A. W. (Eds.). (2009). *African indigenous vegetables in urban agriculture*. https://publications.cta.int/media/publications/downloads/1537_PDF.pdf

Salami, A., Kamara, A. B., & Schwidrowski, Z. B. (2010). *Smallholder agriculture in East Africa: Trends, constraints and opportunities.* United Nations Organization.

Shamina, N., & Henry, M. (2024). Effects of financial management skills on the business performance of small and medium enterprises in Kampala District. *Metropolitan International University Research Repository Extension*.

Sharpe, W. F. (1964). Capital Asset Prices: A Theory of Market Equilibrium under Conditions of Risk. *The Journal of Finance*, 19(3), 425-442.

Soekarni, M. (2024). Strengthening financial literacy of smallholder farmers through agricultural fintech peer-to-peer lending: Evidence and practical implications. *Cogent Social Sciences, 10*(1). https://doi.org/10.1080/23311886.2024.2359011

Tatad, J., Sabuero, K. R., & Santiago, M. (2024). The effect of financial literacy and budgeting skills on financial wellbeing among finance students of one of the universities in Cagayan de Oro (Thesis). *School of Business and Management, Xavier University*. https://doi.org/10.13140/RG.2.2.29853.93926

The UK Loose Leaf Tea Company. (2025). *Kenyan tea*. The UK Loose Leaf Tea Company. Retrieved April 2, 2025, from https://theuklooseleafteacompany.co.uk/collections/kenyan-tea/theuklooseleafteacompany?srsltid=AfmBOoqXKScvCUiIa8XWNuVPxS4rSzQ_nfat58aFrMrlLxtgHnE3MRG5.Kenyan%20Loose%20Leaf

Tinsley, E., & Agapitova, N. (Eds.). (2018). *Private sector solutions to helping smallholders succeed: Social enterprise business models in the agriculture sector.* The World Bank. Retrieved from https://documents1.worldbank.org/curated/pt/851711521095180329/pdf/124304-WP-PUBLIC-AgriBookMar.pdf

Ulukan, D., Bergkvist, G., Lana, M., Fasse, A., Mager, G., Öborn, I., & Chopin, P. (2022). Combining sustainable livelihood and farm sustainability approaches to identify relevant intensification options: Implications for households with crop-based and gathering-based livelihoods in Tanzania. *Ecological Indicators, 144*, 109518. https://doi.org/10.1016/j.ecolind.2022.109518

Van der Wal, S. (2008, June). *Sustainability issues in the tea sector: A comparative analysis of six leading producing countries*. SOMO. https://www.somo.nl/wp-content/uploads/2008/06/Sustainability-Issues-in-the-Tea-Sector.pdf

Wood Foundation. (2022). Rwandan farmers become major tea factory owners. *BBC News Scotland Business.* Retrieved from https://www.bbc.com/news/uk-scotland-scotland-business-60914807

Zuze, S. B. (2014). Factors that influence savings of small scale tea farmers in Kericho Town, Kenya. *Economics, Agricultural and Food Sciences, Business*. Corpus ID: 130410284.

APPENDICES

APPENDIX 1- QUESTIONNAIRE

(Please tick appropriately)

SECTION 1: GENERAL INFORMATION

1. **Respondent Code:** _____
2. **Sub-County :** Ainamoi ☐**;** Belgut ☐**;** Bureti ☐**;** Kipkelion East☐**;** Kipkelion west ☐**;** Soin/Sigowet
3. **Gender:** Male ☐**;** Female ☐
4. **Age Bracket:** 18-25 ☐**;** 26-35 ☐**;** 36-45 ☐**;** 46-55 ☐**;** **55+**☐
5. **Education Level:** No Formal Education ☐**;** Primary School Level ☐**;** Secondary School ☐**;** Level College/University ☐**;** Level Other (Specify): _____
6. **Years in Tea Farming:** Less than 1 year ☐**;** 1 – 5 years☐**;** 6 – 10 years ☐**;** Above 10 years ☐
7. **Do you belong to a Tea Farmers' Cooperative Society?** Yes ☐**;** No ☐
8. **Main Source of Farming Capital:** Personal Savings ☐**;** Loans from Banks/SACCOs ☐**;** Government Grants ☐**;** Other (Specify): _____

SECTION 2: STUDY VARIABLES

9. BUDGETING SKILLS

Instructions: In a scale of 1-5, please answer the following questions
1= never 2= rarely; 3= sometimes; 4= often; 5 = always

Measures of budgeting skills	**1**	**2**	**3**	**4**	**5**
How often do you engage in financial planning?					
How often do you track your expenses?					
How often do you use budgeting tools?					

How often do you set financial goals and allocate funds accordingly?					
How often do you review and adjust your budget based on your financial situation?					

10. SAVINGS SKILLS

Instructions: In a scale of 1-5, please answer the following questions
1= never 2= rarely; 3= sometimes; 4= often; 5 = always

Measures of savings skills	**1**	**2**	**3**	**4**	**5**
How often do you save money consistently?					
How often do you use formal savings instruments (e.g., bank accounts, SACCOs)?					
How often do you set aside money for emergencies?					
How often do you set savings goals and work towards achieving them?					
How often do you reinvest your savings to generate more income?					

11. INVESTMENT SKILLS
Instructions: In a scale of 1-5, please answer the following questions
1= never 2= rarely; 3= sometimes; 4= often; 5 = always

Measures of investment skills		**1**	**2**	**3**	**4**	**5**
How often do you seek knowledge about investments?						
How often do you assess risks before making an investment?						
How often do you reinvest your earnings or profits into your business or farm?						
How often do you diversify your investments to minimize risks?						
How often do you consult financial or investment experts before						

making investment decisions?						

12. DEBT MANAGEMENT SKILLS

Instructions: In a scale of 1-5, please answer the following questions
1= never 2= rarely; 3= sometimes; 4= often; 5 = always

Measures of debt management skills	**1**	**2**	**3**	**4**	**5**
How often do you make timely repayments on your debts?					
How often do you seek information to improve your financial awareness?					
How often do you restructure or renegotiate loan terms to ease repayment?					
How often do you avoid taking on unnecessary debt?					
How often do you plan and budget for debt repayment before borrowing?					

13. THE PERFORMANCE OF SMALL-SCALE TEA FARMERS

Instructions: On a scale of 1 to 5, please rate the following aspects of your tea farming performance:1 = Very Low; 2 = Low; 3 = Moderate; 4 = High; 5 = Very High

Measures of the performance of small-scale farmers	**1**	**2**	**3**	**4**	**5**
How would you rate the profitability of your tea farming?					
How would you rate your productivity in tea farming?					
How would you rate the sustainability of your tea farming skills?					
How would you rate your ability to manage farming costs effectively?					
How would you rate the growth of your farming income over time?					

THANK YOU FOR YOUR PARTICIPATION

APPENDIX II: ETHICAL REVIEW CERTIFICATE

Thika Road, Ruaraka
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Pilot Line: +254 20 8070408/9

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Fax: +254 20 8561077
Mobile: +254 734 888022, 710 888022
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KCA UNIVERSITY SCIENTIFIC AND ETHICS REVIEW COMMITTEE

REF: KCAU/SERC/046 Date: 20th March 2025
TO: MERCY NAITORE (23/02645)

Dear Sir/madam

RE: THE EFFECT OF FINANCIAL LITERACY ON THE PERFORMANCE OF SMALL-SCALE TEA FARMERS IN KERICHO COUNTY

This is to inform you that KCA University Scientific Ethics Review Committee (KCAUSERC) has reviewed and approved your above research proposal. Your application approval number is ***KCAUSERC*** **SOB046**. The approval period is ***20TH March 2025 – 20th March, 2026.***
This approval is subject to compliance with the following requirements;

i. Only approved documents including (informed consents, study instruments, MTA) will be used
ii. All changes including (amendments, deviations, and violations) are submitted for review and approval by ***KCAUSERC***.
iii. Death and life-threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to KCAU***SERC*** within 72 hours of notification
iv. Any changes, anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to ***KCAUSERC*** within 72 hours
v. Clearance for export of biological specimens must be obtained from relevant institutions.
vi. Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. Attach a comprehensive progress report to support the renewal.
vii. Submission of an executive summary report within 90 days upon completion of the study to ***KCAUSERC***.

Prior to commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology and Innovation (NACOSTI) https://research-portal.nacosti.go.ke and also obtain other clearances needed.

Yours sincerely,

Dr. Caroline Ntara
Chairperson, KCA University Scientific and Ethics Review Committee

Advancing Knowledge, Driving Change

APPENDIX 1I1: INTRODUCTION LETTER

Thika Road, Ruaraka
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BOARD OF POSTGRADUATE STUDIES

KCAU/BPS/2025 *Date: Wednesday, April 16, 2025*

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION (NACOSTI)
P.O BOX 30623-00100
NAIROBI

Dear Sir/Madam,

RE: MERCY NAITORE- REG NO. 23/02645

It is my distinct pleasure to introduce Mercy Naitore, a student at our institution pursuing a Master of Science in Development Finance degree in the School of Business.

Mercy is conducting research on the topic: ***"The effect of financial literacy on the performance of small-scale tea farmers in Kericho County"*** Her study has been reviewed and approved by the University's Ethics Review Committee Certificate No. KCAU/SERC/046 and she is now set to proceed with data collection from January 2025 to April 2025.

Any assistance accorded to her is highly appreciated.

Yours faithfully,

DR. JACKSON NDOLO
DIRECTOR, BOARD OF POST GRADUATE STUDIES

APPENDIX IV: NACOSTI LICENSE

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **869168**

Date of Issue: **28/April/2025**

RESEARCH LICENSE

This is to Certify that Ms.. Mercy Naitore of KCA University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Kericho on the topic: THE EFFECT OF FINANCIAL LITERACY ON THE PERFORMANCE OF SMALL- SCALE TEA FARMERS IN KERICHO COUNTY for the period ending : 28/April/2026.

License No: **NACOSTI/P/25/4173074**

869168

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.

See overleaf for conditions

APPENDIX V- TIMELINE

Dissertation Activity	**NOV - 2024**	**DEC-2024**	**JAN-2025**	**FEB - 2025**	**MAR - 2025**	**APRIL-2025**	**MAY-2025**
Topic selection and concept development							
Writing dissertation							
Approval of Dissertation							
Data collection and analysis							
Writing final dissertation							
Final Dissertation							

APPENDIX VI- RESEARCH BUDGET

Item	Cost (KES)
Personnel Costs	50,000
Data Collection	20,000
Materials and Supplies	10,000
Training and Workshops	15,000
Miscellaneous	5,000
Total Estimated Budget	80,000