

Influence of Budget Allocation on Performance of Smallholder Tea Farming Project in Nyamira County, KenyaStephen Moseria Mesa¹,  Charles Mallans Rambo²,  Angeline Sabina Mulwa³ 

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 [10.52283/NSWRCA.AJBMR.20240901A04](https://doi.org/10.52283/NSWRCA.AJBMR.20240901A04)**Abstract**

Tea has been a significant cash crop for farmers, particularly smallholders who generate income from the agricultural sector. Research however, indicates various challenges and unrealistic budgetary allocations for monitoring and evaluation unaddressed particularly in developing countries Kenya included. Consequently, this has frustrated the performance of smallholder tea farming projects. Therefore, this manuscript intends to review the existing literature in order to assess how much budgetary allocation for monitoring and evaluation influences the performance of smallholder tea farming projects in Nyamira County, Kenya. Budgeting and financial planning are critical for both large and smallholder tea farmers. Because of the resource constraints associated with smallholder tea farming projects, the dimensions of quality and time are critical to ensuring that waste levels are kept low and a high level of productivity performance is achieved. The investigation focused on smallholder tea farmers who are currently engaged in tea farming in Nyamira County. The study adopted the theory of constraints and used purposeful and simple random sampling to arrive at a non-biased sample of 379 smallholder tea farmers who participated in the study. The data was gathered using a questionnaire and an interview schedule as data collection tools. SPSS was used to analyze the data, and the results revealed that budgetary allocation statistically influenced the performance of smallholder tea farming projects in Kenya.

Keywords: Budget allocation, monitoring and evaluation, performance, smallholder tea farming project.**I. Introduction**

Kenyan tea is renowned worldwide for its quality and safety due to adherence to the industry standards. These standards include; good agricultural practices (no pesticides or agrochemicals involved during tea processing) and

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good husbandry practices and selection of high-quality varieties. Further, there are good skillful processing practices (no additives, preservatives or artificial coloring); continuous improvements due to investment in modern technology and Research and Development to Global and National Food Safety standards as well as compliance with environmental and social market requirements. The tea is thus sought by many tea blenders and consumers worldwide (AFA - Tea Directorate, 2024). Nyakweba, (2019) opines that tea is the leading export crop in Kenya. In the world market, Kenya is the third largest producer of black tea after India and Sri Lanka. Tea from Kenya however still faces the problems of high production cost, low-value addition, price fluctuations and climate change, leading to low earnings by tea growers resulting to low budgetary allocations hence negatively affecting the performance of smallholder tea farming project (UNDP, 2012).

Tea industry in Kenya is unique in that it is comprised of two distinct sectors; the Plantation or large-scale sector and the small holder sector. The Plantation sector is owned by large scale tea producers and companies while the small holder's sector is by small scale growers. The small holder sector has more than half a million growers who are located across tea growing areas in the country (www.teaboard.or.ke). The small holder sector factories are managed by Kenya Tea Development Agency.

Kamanga, (2023) found out that tea production in Kenya is faced with a lot of challenges. Kenya Tea Development Agency has experienced adverse fluctuations. This trend has persisted irrespective of efforts by tea companies and farmers to devise methods and techniques to counter it. This problem has affected economic development among smallholders' tea farmers, since farmers depend largely on tea production as their main source of income. Moreover, tea manufacturing factories in the Country have been hit by a downward trend in prices against the backdrop of rising production costs, the highest being labor costs. There have been serious concerns about the declining quality of Kenyan tea which is a big threat to the preference of Kenyan tea in the global tea market. This declining quality trend is predominately attributed to reduced surveillance, monitoring and evaluation of the budgetary allocations to industries for quality and standards at all levels. It also poses a threat to the long-held high-quality reputation of Kenyan tea Odhiambo, (2015)

Tea Board of Kenya (2024) posits that despite Kenya being the leading exporter of tea in the world accounting for 25% of the Global tea export volume, Kenya's export earnings from tea are lower compared to its competitors such as Sri Lanka and China. For example, in 2022, Sri Lanka exported 247 million Kgs, which was 45% less in quantity terms than Kenya but recorded 5% more earnings at USD 1.245 Billion. Consequently, the average tea export price realized by Sri Lanka was higher at USD 5.04 per Kg compared to USD 2.60 for Kenyan tea exports-a price difference of USD 2.44 for export of every Kg by the two countries. Further, Kenya's overreliance on few markets makes her prone to adverse impact in case of socio-political and economic turbulences in these markets. Kenyan tea also faces low market access for value-added products due to protectionist trade barriers in other markets, and lack of a visible brand identity. In 2023, the ten major export markets for Kenyan tea were Pakistan, Egypt, UK, UAE, Sudan, Russia, Yemen, Kazakhstan, Afghanistan and Poland which accounted for about 83.1 percent of the total export volume, while 16.9 percent was exported to 82 markets worldwide.

There are no processes in place to ensure that suggestions of earlier budget allocation findings and reports are considered to when solutions to current difficulties are sought (Nyamira County Agricultural Official Report, 2015).

Microcredit was suggested as a social safety net for the impoverished in emerging nations and as a means of reducing poverty in the World Development Report of 2000–2001. For both large and smallholder tea farmers, financial considerations and budget allocation are also crucial. The resource limitations associated with smallholder tea farming project indicate that the dimension of quality and time are critical to ensure that waste levels are kept low and that high level of productivity performance is achieved (Nyakweba, 2019).

In relation to budgetary allocations entry barriers were said to be high for new smallholder starters to access loan finance is indeed a challenge. Two reasons can be sighted as the causes for this state of affairs. The first being the fact that new business starters, especially Smallholder tea farmers, lack information and the experiences as to how to approach microfinance institutions while the second was that microfinance institutions trust entrepreneurs with whom they have long business relationships much more than the soundness of the farming and business ideas. Once business dealings are started and good track records established, one does not face any problems getting additional loans Nyakweba, (2019). Budgetary allocations should be sufficiently commissioned in order to foster as used for clearing, the Jembe for land preparation and weeding, and sickle (pruning knife) for pruning. Only one farmer who had 8.6 hectares of tea used a tractor on his farm for ploughing and general land preparation. Other activities are carried out by hand.

This is a slow process, but in Kenyan smallholder tea production, mechanization has not really picked up (Tea Board of Kenya, 2021). Therefore, there is an urgent need for the smallholder tea farmers to embrace technology in order to achieve the overall objective.

Aim and originality of study



The tea industry worldwide experiences cyclical price fluctuations due to demand and supply dynamics, as well as social, political and economic situations in these key markets. This creates anxiety in industry sustainability; and when there are price fluctuations, growers bear the negative impact due to lack of proper budget allocation for smallholder tea farmers. For this reason, various market destinations for Kenyan tea have increasingly imposed different certification and quality standard requirements which impede access to certain niche markets and increase the cost of trade. There are also logistical challenges in accessing some markets. Other markets are not accessible due to tariff and non-tariff barriers. While tea is a leading foreign exchange earner and the major single export commodity for Kenya, there is still insufficient resource support in the promotion of tea exports in international markets (Karlo, 2023)

Nyamira County has recently become known for large-scale tea production, which also serves as the county's primary source of income. However, research shows that farmers have always complained of low bonus payments received by tea farmers due to poor budget allocation for smallholder tea farmers. According to recent studies, due to poor budget allocation to smallholders' tea monitoring and evaluation, farmers have widely chosen poultry farming, banana farming, and avocado farming as alternatives to tea farming because the majority of those who have already ventured into them are recording very good results and earning a lot of money (Ateka, 2018).

Just as for tea research, there is a need for further investment in Kenya's tea trading and marketing to not only sustain the current markets but also diversify in markets and products. The tea industry which stands to gain from such developments needs to support such investments in industry levies (Kamanga, 2023)

According to Oirere, (2017) other smallholder tea farmers have opted for private buyers, contributing to the tea smallholders' outcry. Poor budget allocation for smallholder tea farmers has continued to have a significant impact on the tea smallholder tea farming project not only in Kenya, but also globally. In an attempt to solve the existing phenomenon, this study sought to investigate the impact of budget allocation for monitoring and evaluation on the performance of a smallholder tea farming project.

II. Literature Review and Development of Hypotheses

Smallholder tea Projects necessitate proper resource allocation for monitoring and evaluation. Wiggins and Sharada, (2013) found that privatization increased budget allocation to smallholder tea farmer groups, resulting in increased competitiveness. Finding strategies to repair market failures by government intervention in rural markets to offer inputs, funding, and marketing directly to overcome the obstacles in private provision was established in their study (Mitei, 2011). Before the age of structural adjustment and liberalization, this was the reasoning that drove the old marketing boards and state businesses that were common throughout Africa. This may include making use of existing regulations; simplifying or clarifying existing regulations; improving enforcement of existing regulations or making legal remedies more accessible or cheaper. If no intervention in rural markets however, the status quo is likely to remain as the tea sector in the country currently has no specific regulation on the tea levy and existing applicable regulations have failed to effectively stir its growth and development optimally. In the absence of any new intervention, the industry would likely remain as it currently is, and this will be to the detriment of all smallholder tea farmers and the country in general.

Whereas Kenya is known to produce high-quality tea free from pesticides and other harmful chemicals, there have been serious concerns about the declining quality of Kenyan tea which is a big threat to the preference of Kenyan tea in the global tea market. This declining quality trend is predominately attributed to reduced surveillance and monitoring of the industry for quality and standards at all levels. It also poses a threat to the long-held high-quality reputation of Kenyan tea (Mackenzie, 2023). Further, the available literature posits that, there lacks a framework for funding infrastructure in the tea sector. There is a need therefore to introduce a levy that will be ploughed back into the development of the tea industry to provide finances for maintaining infrastructure in tea-growing areas. The Board may seek alternative sources to fund the development and maintenance of infrastructure in tea-growing zones to enhance efficiency and reduce losses in the industry operations (Tea Board of Kenya, 2023)

In terms of budgetary allocations, "entrance barriers for new smallholder start-ups were found to be significant, making it difficult to obtain loan financing". There are "two possible explanations for this condition of affairs.

The first is that new business start-ups, particularly smallholder tea farmers, lack knowledge and experience in approaching microfinance institutions, while the second is that microfinance institutions place a higher value on entrepreneurs with whom they have long business relationships than on the soundness of their farming and business ideas". "Once a business is established and a respectable track record has been established, more loans are not difficult to obtain (AFA- Tea Directorate, 2024).

Kenyan tea production climbed from 20,000 tonnes in 1964 to 400,000 tonnes in the 2000s, with average yields rising from one tonne per hectare in the mid-1970s to more than two tonnes in the mid-1990s. Kenya's tea exports increased at an annual average pace of 6.4 percent from 1961 to 2009, making it the world's largest tea

exporter by the mid-1990s. Early on, smallholder farmer representation on the Kenya Tea Development Agency board was critical to its success. Nonetheless, the inclusion of the tiniest farmers was only possible due to a defiance of the Authority's original regulations, which said that farmers with less than 0.8 hectare were too impoverished to be aided. Kenya Tea Development Agency's field officers who did not execute the restrictions enabled some small growers who planted tea illegally or depended on friends and relatives to buy plants on credit. Because there were more illegal farmers than legal farmers in the 1970s, the Kenya Tea Development Agency provided an amnesty and re-absorbed the smaller farmers" (Kenya Tea Development Agency, 2017 and Ondieki, 2016). Effective budget allocation for Monitoring and Evaluation plays a pivotal role in the performance and success of smallholder tea farming projects. Properly allocating funds to monitoring and evaluation activities is essential for tracking project progress, assessing impact, and making informed decisions to improve outcomes.

In smallholder tea farming, the importance of a well-defined monitoring and evaluation budget cannot be overstated. This budget covers several key areas, starting with personnel costs. Salaries for monitoring and evaluation officers, data analysts, and field staff are critical, as skilled professionals are needed to ensure accurate data collection and analysis. Additionally, a portion of the budget should be allocated for data collection tools such as surveys, questionnaires, and data entry software. High-quality tools facilitate efficient and precise data gathering, which is vital for making informed decisions. Training and capacity building also form a crucial part of the monitoring and evaluation budget. Investing in training sessions for monitoring and evaluation staff and project implementers helps enhance their skills and understanding of monitoring and evaluation processes, which in turn improves the overall effectiveness of the project. Furthermore, funds should be earmarked for field visits and data verification. This includes expenses for travel and logistics to visit project sites and verify the accuracy of collected data. Field visits provide valuable insights into on-ground realities and help in making necessary adjustments to project activities.

Potential interventions to the challenges facing smallholder tea farmers include product diversification, value addition and novel marketing strategies. Reporting and dissemination are additional components of the monitoring and evaluation budget. This includes costs related to compiling reports, conducting reviews, and sharing findings with stakeholders. Transparent and timely reporting fosters accountability and supports informed decision-making, which is crucial for the success of smallholder tea farming projects. Adequate budget allocation for monitoring and evaluation directly impacts the performance of smallholder tea farming projects. Effective monitoring and evaluation enable stakeholders to identify strengths, weaknesses, and areas requiring improvement. For example, monitoring and evaluation activities can uncover gaps in training, resource distribution, or pest management practices. Addressing these gaps can lead to enhanced productivity, optimized resource use, and increased profitability for smallholder farmers. Moreover, a well-funded monitoring and evaluation system supports evidence-based decision-making. Reliable data allows project managers to make informed decisions about scaling successful practices, reallocating resources, or adjusting strategies. This dynamic approach helps adapt to changing conditions and ensures the long-term sustainability of the project.

According to (Revised Regulatory Impact Assessment Report Tea (Tea Levy) Regulations, 2024), Tea from Kenya however still faces the problems of high production cost, low-value addition, price fluctuations and climate change, leading to low earnings by tea growers. Thus, it was under this background that it was deemed necessary to undertake this study to investigate the impact of budget allocation for monitoring and evaluation on the performance of a smallholder tea farming project in Nyamira County, Kenya.

Theoretical Framework

The theory of constraints (TOC) was used in this study to demonstrate how smallholder tea farmers may efficiently manage their tea farming projects using system thinking and constraint management (Kohli & Gupta, 2010). According to TOC, management philosophy focuses on change at three levels: the organization's mindset, the measures that drive the organization and the methods used within the organization (Gupta and Boyd, 2008).

Effective management of projects is often challenging due to the inherent uncertainty and the need to balance three diverse and conflicting obligations: due date, budget, and content. This triad of constraints—often referred to as the triple constraints of project management (time, scope, and cost)—has long been recognized as a critical measure of project success. According to Kamanga, (2023) managing these constraints is pivotal because they represent fundamental aspects of a project's execution and ultimate success.

The triple constraints criterion underscores that time, scope, and costs are interrelated factors that collectively define the project's trajectory. Time refers to the schedule allocated for project completion, scope encompasses the specific goals and deliverables, and cost involves the budgetary constraints. Venture managers emphasize the importance of these three constraints, as each one directly influences the other two. For instance, a change in scope may lead to increased costs and extended timelines. Conversely, a reduction in budget may necessitate a reduction in scope or an extension of the project timeline. This interconnected nature of constraints requires a delicate balancing act to achieve a successful project outcome.



In practical terms, streamlining the triple constraints can significantly enhance the quality and success of a project. Effective management strategies involve setting realistic deadlines, defining clear and achievable project goals, and allocating a sufficient budget to meet these objectives. By aligning these elements, project managers can achieve a higher level of quality and ensure that project deliverables meet or exceed expectations. This alignment also helps in mitigating risks associated with project delays, budget overruns, or scope creep, thus contributing to a more favorable project outcome.

Each of the three constraints—scope, cost, and time—has its own distinct impact on project execution. Scope defines the value that the project aims to deliver and serves as a benchmark for evaluating success. Cost, on the other hand, represents the financial resources required, and time denotes the project's schedule. However, because these constraints are interconnected, changes in one constraint can significantly affect the others. For example, if a project's scope is expanded, it may lead to increased costs and extended timelines. Conversely, if the budget is constrained, it may necessitate a reduction in scope or schedule adjustments. The implications of this interconnectedness are profound. As hamid et al. (2012) point out; the impact of one constraint on the others can affect project expectations and outcomes over the long term. Therefore, careful consideration of budgetary allocation is crucial to managing the cost constraint effectively. Projects are often expensive undertakings, and inadequate budget planning can lead to significant challenges. A well-thought-out budget ensures that financial resources are allocated appropriately to meet the project's needs and mitigate potential risks. It also provides a framework for managing costs throughout the project's lifecycle, helping to avoid budget overruns and ensuring that the project remains on track. This manuscript, drawn from research that sought to examine the monitoring and evaluation practices, project team dynamics, and performance of smallholder tea farming project in Nyamira county, Kenya. Moseria, (2025) focuses on the impact of budget allocation for monitoring and evaluation on the performance of a smallholder tea farming project. All the supervisors contributed to the manuscript in terms of scholarly input and corrections. Their numerous insightful and constructive comments were beneficial to this study and approved the submitted version. The study is therefore coined on the conceptual framework as illustrated below.

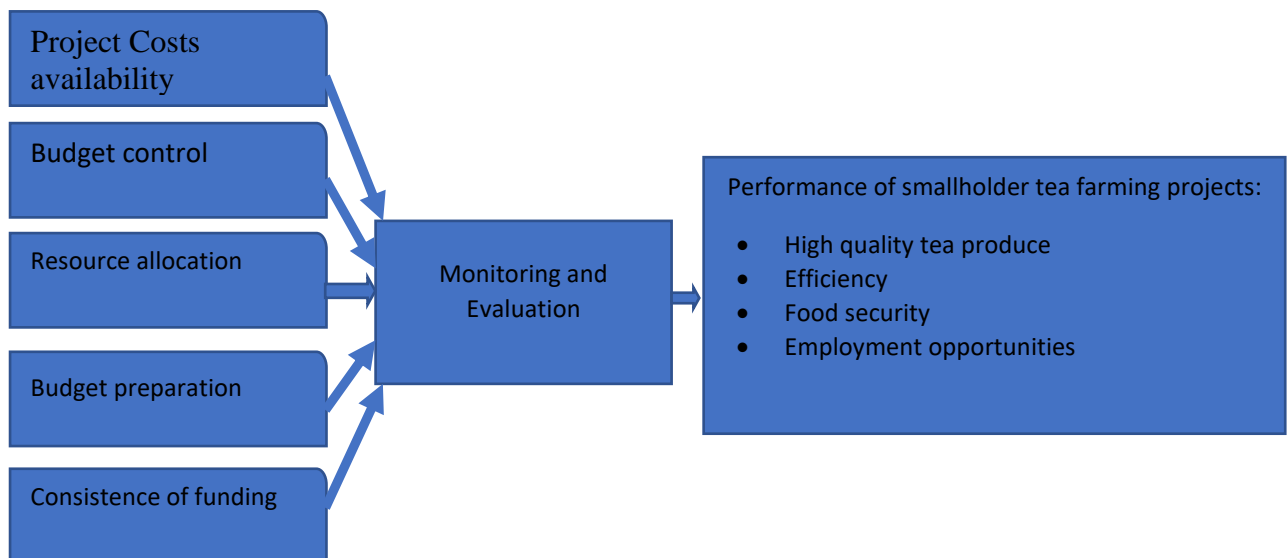


Figure 1: conceptual framework

III. Methodology

Research Paradigm

This research was conducted within the framework of the pragmatism paradigm, which incorporates the epistemological, axiological, ontological, and methodological foundations of the study. Creswell (2018) defines a research paradigm as a basic set of beliefs that guide action maintaining that such can be seen as general philosophical orientation about the world and the nature of research that a researcher brings to a study. Ondieki (2016) defines the pragmatic philosophical paradigm as an approach that focuses only on factual knowledge that is continuously renegotiated, reexamined, discussed, disputed, and understood in terms of its utility in novel and

unanticipated phenomena. Furthermore, in the field of pragmatism studies, the researcher actively engages with individual participants and the analysis is subjective, relying on current facts and personal impressions. The study adopted pragmatism as its paradigm due to the recognition that people or phenomena cannot be analyzed objectively. This is because the researcher, context, and social reality all influence the outcomes of research. In this approach, 'reality' is considered to be socially constructed and subjective, rather than something that has a universal truth.

Research design

According to Kothari and Garg (2013), a research design refers to the structure, outline or scheme within which research should be carried out in order to discover solution to the problem under investigation. The study used a descriptive survey methodology and Correlation research design to evaluate the acquired data. The choice of research design in this study was influenced by the kind of data gathered. Both descriptive survey research design and correlation research design were used. The purpose of data collection was to gather both descriptive and inferential data, which necessitated the use of descriptive and inferential analysis Creswell (2018) elucidated that the use of quantitative and qualitative designs is crucial for analyzing both descriptive and quantitative data. Quantitative design allows the researcher to mathematically analyze data and the researcher aims to exert control over variables. The study used a descriptive survey research approach, which facilitated rapid acquisition of information from the target population at a specific moment in time. (Njuguna et al. (2014) state that the descriptive cross-sectional survey allows for the testing of research hypotheses. The studies conducted by Waithaka, Muathe et al. (2013) and Njuguna et al. (2012) used a similar research design. These studies found that this particular design facilitates a precise concentration on data collecting, ultimately resulting in the successful attainment of study goals.

Data collection methods

The study adopted a pragmatic approach, which facilitated the use of diverse data collection instruments, including well-structured questionnaires and an interview guide. Pragmatism, as a research paradigm, emphasizes practical solutions and the use of various methods to address research questions effectively. This approach allows researchers to leverage both quantitative and qualitative data collection techniques, providing a more comprehensive understanding of the study's subject. In this context, questionnaires were employed as a primary tool for data collection. According to Mellenbergh, (2008) questionnaires are valuable for acquiring objective data because they minimize the manipulation of participants. By providing standardized questions and response options, questionnaires allow for the systematic collection of data from a larger sample, ensuring that the information gathered is consistent and comparable across participants. This objectivity is crucial for analyzing patterns and trends within the data, leading to reliable and generalizable findings.

However, while questionnaires are effective for gathering quantitative data, they may not capture the full depth of participants' experiences, emotions, and perspectives. To address this limitation, the study incorporated an interview guide as a complementary tool. The interview guide was designed to elicit rich, detailed information about participants' personal sentiments, perceptions, and opinions. This qualitative approach allows for a deeper exploration of the topics under investigation, as interviewers can ask open-ended questions and probe further based on participants' responses.

The use of an interview guide also supports the triangulation of data. Triangulation refers to the process of using multiple data sources or methods to cross-verify and enrich the findings. By combining quantitative data from questionnaires with qualitative insights from interviews, the study can achieve a more nuanced and robust understanding of the research topic. This method helps to validate and enhance the credibility of the data, providing a more comprehensive view of the participants' experiences and viewpoints.

IV. Data Analysis

Quantitative Data Analysis

In the analysis of the data for this study, a quantitative approach was employed, focusing on descriptive statistics to provide a comprehensive understanding of the dataset. Descriptive statistics are particularly useful for summarizing and interpreting data, making it easier to identify patterns and draw meaningful conclusions from



the findings. The specific descriptive statistical methods used in this analysis included measures of central tendency, dispersion, percentages, and frequency distributions.

One of the primary methods used to analyze the data was calculating measures of central tendency, specifically through arithmetic means. The arithmetic mean, or average, provides a central value around which the data points are distributed. By calculating the mean, the study could determine the typical or average response of participants to various survey items. This measure is particularly useful for understanding the general trends and overall tendencies in the data. For example, the mean score for budget allocation effectiveness indicated how respondents collectively perceived its impact on smallholder tea farming performance.

Qualitative Data Analysis

Qualitative data was obtained “through interview guide, identifying themes on which the data were based in a narrative statement for triangulation of quantitative data”. The interview guide was designed to structure and facilitate the collection of qualitative data. It included a series of open-ended questions that allowed participants to express their thoughts, feelings, and experiences in their own words. The flexibility of the interview guide enabled interviewers to explore topics in greater depth and probe for additional details based on participants' responses. This approach is particularly valuable for uncovering nuanced information and gaining a deeper understanding of the participants' perspectives on the subject matter. Once the interviews were conducted, the next step in analyzing the qualitative data was to identify key themes. Thematic analysis was employed to systematically categorize and interpret the data. This process involved reviewing the interview transcripts, coding the data, and grouping similar responses into thematic categories. Themes were identified based on recurring patterns, concepts, and significant insights that emerged from the data. For example, themes related to challenges in budget allocation for monitoring and evaluation or perceptions of its impact on project performance were explored and analyzed.

Inferential analysis

Multiple linear regression models were used to establish the simultaneous Influence of budgetary allocation on performance of smallholder tea farming projects.

Model

“Hypothesis; H₀: There is no significant relationship between Budget Allocation for monitoring and evaluation and Performance of smallholder tea farming projects Nyamira County”.

“Performance of smallholder tea farming projects Nyamira County = f (Budget Allocation for monitoring and evaluation, random error)

$$Y_j = \beta_0 + \beta_2 X_2 + \varepsilon_i$$

Where β_0 – Population's regression constant, X_2 – Budget Allocation for monitoring and evaluation β_i the regression coefficient of Budget Allocation for monitoring and evaluation and ε -is the Model error variable”.

“To arrive at empirical conclusions tests of various hypotheses were conducted at $\alpha=0.05$ significance level. For $P<0.05$, H_0 was rejected and H_A accepted ($P\text{-Value} \geq 0.5$ do not Reject or $P\text{-Value} \leq 0.5$ Reject)”.

Results

Distribution of respondents by Gender

It was imperative to investigate the respondents' gender to establish gender parity in management of smallholder tea farming projects. The information sought on gender was significance to the government for policy decision making. The respondents were therefore asked to state their gender and the results are presented in Table 1.

Table 1: Distribution of Respondents by Gender

Gender	Frequency	Percent
Females	193	52.0
Males	178	48.0
Total	371	100

Source: Researcher's data

Table 1, shows that over 50% of the respondents at 193(52%) were females while their male counterparts were 178(48%). The findings indicated that Female tea farmers outnumbered their male counterparts by relatively smaller margin, implying that there was still gender parity in smallholder tea farming projects. The implication of this result to the study is that majority of women devote their time and get preoccupied in tea farming projects to generate income for self-sustainability and hence enhance performance of smallholder tea farming projects as opposed to men who normally prefer other forms of employment preferably of office nature.

Descriptive analysis results

Budget allocations are defined as "integral components of an annual financial plan, or budget, showing the degree of resources, an organization is committing to a department or program." This was the study's "second goal, thus participants were asked to rate their level of agreement or disagreement with the seven Budget Allocation for monitoring and evaluation statements on a Likert scale of 1 to 5, with Strongly agree (SA) equaling 5 and Agree (A) equaling 4. Neutral (N) equals 3, disagree (D) equals 2, and strongly disagree (SD) equals 1." "The data was evaluated and displayed in order to demonstrate the frequency and percentage of responses for each item. Table 2 shows the item mean and standard deviation, as well as the item mean and standard deviation."

Table 2: Budget Allocation for Monitoring and Evaluation and Performance of Smallholder Tea Farming Projects

STATEMENTS	SA	A	N	D	SD	Mean	Std. dev
1. Project cost availability influences performance of smallholder tea farming projects"	208 (56.1%)	134 (36.1%)	26 (7.0%)	3 (0.8%)	0 (0.0%)	4.47	0.663
2. Budget control is a key process that enhances performance of smallholder tea farming projects.	229 (61.7%)	136 (36.7%)	5 (1.3%)	1 (0.3%)	0 (0.00%)	4.60	0.533
3. "None biased resource allocation motivates smallholders hence leading to performance"	201 (54.2%)	151 (40.6%)	17 (4.6%)	1 (0.3%)	1 (0.3%)	4.48	0.625
4. Budget planning is crucial to every smallholder's performance.	202 (54.4%)	147 (39.6%)	18 (4.9%)	3 (0.8%)	1 (0.3%)	4.47	0.654
5. Consistency of funding does not influence performance of smallholder tea farming projects.	28 (7.5%)	32 (8.7%)	6 (1.6%)	137 (36.9%)	168 (45.3%)	1.96	1.223
6. There is urgent need for adequate funding for monitoring and evaluation.	155 (41.8%)	161 (43.4%)	47 (12.7%)	6 (1.6%)	2 (0.5%)	4.24	0.775
7. Counties receive adequate funds for monitoring and evaluation.	97 (26.1%)	56 (15.1%)	166 (44.8%)	27 (7.3%)	25 (6.7%)	3.47	1.151
"Composite mean and Composite standard deviation"						3.73	0.867

Source: Researcher's data

Statement (1) had a mean of 4.47 and a standard deviation of 0.663, indicating that "project cost availability effects performance of smallholder tea farming projects." "The reduced standard deviation of 0.663 compared to the composite standard deviation of 0.867 indicated that the perspectives of smallholder tea producers were convergent."

Statement (2) had a mean of 4.60 and a standard deviation of 0.533, indicating that "budget control is a vital step that promotes success of smallholder tea farming projects." The line statement mean score of 4.60 was higher than the composite mean score of 3.73, implying that budget control is a critical mechanism that favorably influences the performance of smallholder tea farming initiatives. The smaller standard deviation of 0.533 compared to the composite standard deviation of 0.867 suggested that the views of the Smallholders tea producers were convergent."

Statement (3) had a mean of 4.48 and a standard deviation of 0.625, indicating that "nonbiased resource allocation inspires smallholder tea producers and hence leads to performance of smallholder tea farming projects." The line statement mean score of 4.48 was higher than the composite mean score of 3.73, implying that non-biased resource allocation inspires smallholder tea producers and hence has a positive impact on the performance of smallholder tea farming programs. The smaller standard deviation of 0.625 compared to the composite standard deviation of 0.867 indicated that the views of the Smallholders tea producers were convergent."

"Budget planning is vital to every smallholder's tea farming project performance," stated statement (4), with a mean of 4.47 and a standard deviation of 0.654. The line statement means score of 4.47 was higher than the composite mean score of 3.73, as shown in the findings. The study's conclusion is that budget planning is critical to the success of every smallholder's tea farming project, and so has a beneficial impact on the success of smallholder tea farming projects. The reduced standard deviation of 0.654 compared to the composite standard deviation of 0.867 indicated that the views of the Smallholders tea producers were convergent."



Statement (5): "Financial consistency has little impact on the performance of smallholder tea farming projects." The standard deviation was 1.223 and the mean was 1.96. The line statement mean score of 1.96 was lower than the composite mean score of 3.73; the implication of this result for the study is that consistent funding to smallholder tea farmers is needed to influence the performance of smallholder tea farming initiatives. The larger standard deviation of 1.223 compared to the composite standard deviation of 0.867, however, revealed that the Smallholders tea producers' opinions differed."

The statement (6), 'Adequate finance for monitoring and evaluation is urgently needed,' had a mean of 4.24 and a standard deviation of 0.775. The line statement mean score of 4.24 was higher than the composite mean score of 3.73; the relevance of this result for the research is that it has a beneficial impact and that adequate financing for monitoring and evaluation is urgently needed. The reduced standard deviation of 0.775 compared to the composite standard deviation of 0.867 suggested that the views of the Smallholders tea producers were convergent."

The statement "Counties receive appropriate cash for monitoring and evaluation" had a mean of 3.47 and a standard deviation of 1.151. This result indicates that the line statement mean score of 3.47 was lower than the composite mean score of 3.73; the study's implication is that Counties urgently want appropriate finances for monitoring and evaluation. The larger standard deviation of 0.1.151 than the composite standard deviation of 0.867, on the other hand, revealed that the Smallholders tea producers' opinions differed.

Inferential Analysis results

Regression Analysis of Budget Allocation on Performance of Smallholders' Tea farming projects

Researchers employed simple linear regression to determine how the performance of smallholder tea farming initiatives is impacted by budget allocation for monitoring and evaluation. It was necessary to collect the participants' opinions on how the performance of smallholder tea farming programs was affected by the budgetary allocation for monitoring and evaluation. A basic regression model was used to determine whether or not budget allocation for monitoring and evaluation was a significant predictor of tea farming project performance. The following theme sections go into greater detail about these:

Model Summary table of Budget Allocation and Performance of Smallholders' Tea farming projects

The model summary sought to establish how Budget Allocation "is a predictor that significantly or insignificantly predicted the Performance of Smallholders' Tea farming projects". The model summary is presented in Table 3

Table 3: Regression Model Summary table of Budget Allocation and Performance of Smallholders' Tea farming projects

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.396a	0.157	0.154	0.443

a. Predictors: (Constant), Budget Allocation

Source: Researcher's data

The model summary results in Table 3 showed that the regression model's predictions and the budget allocation for monitoring and evaluation as well as the performance of smallholders' tea farming projects were positively correlated ($R=0.396$). Additionally, 15.7 percent of the variance in the performance of smallholders' tea farming projects was explained by budget allocation for monitoring and evaluation. This result is in line with that of Kamanga, (2023) who discovered a strong correlation between the performance of smallholder tea farming projects and the budgetary allocation for monitoring and evaluation.

ANOVA of Budget Allocation and Performance of Smallholders' Tea farming projects

The research sought to assess if the regression for ANOVA model was best fit for predicting Performance of Smallholders' Tea farming projects after use of Budget Allocation. The regression ANOVA findings are presented in Table 4

Table 4: An ANOVA of the Regression of Budget Allocation and Performance of Smallholders' Tea farming projects

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	13.428	1	13.428	68.510	0.000b

Residual	72.375	369	0.196
Total	85.803	370	

a. Dependent Variable: Performance of Smallholders' Tea farming projects
b. Predictors: (Constant), Budget Allocation
Source: Researcher's data

The ANOVA results from Table 4 “indicated that (F-statistics (1,369) =68.510 is significant at P value $0.000 < 0.05$ implying that the predictor co-efficient is at least not equal to zero and hence the regression model results in significantly better prediction of Performance of Smallholders' Tea farming projects”.

Coefficients for Regression of Budget Allocation and Performance of Smallholders' Tea farming projects

The investigation sought to find out whether there was influence of Budget Allocation on Performance of Smallholders' Tea farming project. The regression coefficients findings are presented in Table 5

Table 5: Coefficients for the Regression of Budget allocation and Performance of Smallholders' Tea farming projects

coefficient's					T	Sig.
Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta		
1	(Constant)	2.117	0.257		8.243	0.000
	Budget Allocation for monitoring and evaluation	0.535	0.065	0.396	8.274	0.000

a. Dependent Variable: Performance of Smallholders' Tea farming projects

Source: Researcher's data

The performance of the smallholders' tea cultivation project was significantly impacted by the budgetary allocation for monitoring and evaluation, according to the simple linear regression coefficients. Both the budget allotment for monitoring and assessment ($1 = 0.535$; $p 0.05$) and the unstandardized coefficient of the constant term ($0 = 2.117$; $p 0.05$) were statistically significant. When utilizing the standardized beta value (0.396) to forecast the performance of smallholder tea farming programs, budget allocation for monitoring and evaluation came in third place among other predictor factors. The performance of smallholders' tea farming initiatives varied by 0.535 units for every unit of budget allocation for monitoring and evaluation, according to the regression model for this purpose, which was $y = 2.117 + 0.535X_2$. Consequently, it was shown that there was a positive and linear relationship between the Tea Farming Project for Smallholders' performance and the budgetary allocation for monitoring and evaluation.

V. Conclusion

Policy makers Budget planning is essential to the success of any smallholder tea farming project, according to the study's findings, and it positively affects these projects' outcomes. As a result, funding for monitoring and evaluation has a significant impact on how well smallholder tea farming operations function, and improvements in these projects are directly correlated with those improvements. To completely close the gap, which is plagued by issues including high production costs, low value addition, price volatility, and climate change, the intervention of involving smallholder tea producers for improved budget allocation has not been successful. Smallholder tea farming operations have suffered as a result of the poor incomes that tea growers have received, which has led to low budgetary allocations.

Research Implications

The study's findings give researchers a wealth of information. This study is essential for policymakers to develop a methodical approach to implementing monitoring and evaluation procedures as well as project team dynamics for smallholder tea cultivation projects. It is hoped that the anticipated result would be extremely important to the agricultural sector, individual farming, project management, and upkeep of successful projects that will significantly affect community growth and institutional viability. It is believed that this would lead to a deeper comprehension of how monitoring and evaluation procedures affect the performance of smallholder tea cultivation

projects. Once more, it is believed that the study's findings would aid in the development of policies in the crucial areas of project design, execution, management, and budgetary allocation.

Limitations and Calls for Future research

Word vice (2021) maintains that limitations of any particular study concern potential weaknesses that are usually out of the researcher's control and they may affect the study design, results and ultimately, conclusions. The information was sensitive and respondents were scared of giving full information. This was evident in data collection process, whereby some respondents were somehow reluctant to give information as others were not ready to be interviewed. The researcher mitigated this by explaining to the respondents the purpose of the study and assured them that their responses would be treated with uttermost confidentiality.

Further research is encouraged to investigate on the effects of Adequate funding in covering various aspects of monitoring and evaluation, including personnel, data collection tools, training, and field visits.

Recommendations of the Study

Several suggestions can be made to improve the efficacy of these projects in light of the noteworthy findings of this study, which demonstrated a significant relationship between the performance of smallholder tea farming projects in Nyamira County and the budget allocation for monitoring and evaluation. It is advised that stakeholders enhance their investment in monitoring and evaluation activities due to the significant impact that budget allocation for these activities has on the performance of smallholder tea farming initiatives. Enough money should be set aside to support staff, data gathering equipment, training, and field trips, among other parts of monitoring and evaluation. Better tracking of project progress, prompt issue identification, and overall improved project outcomes will result from enhanced budgetary provisions that guarantee the efficient execution of monitoring and evaluation operations. It is crucial to develop and implement robust monitoring and evaluation frameworks and processes tailored to the specific needs of smallholder tea farming projects. This involves setting clear objectives, defining appropriate indicators, and establishing systematic data collection and analysis procedures. Strengthening these frameworks will improve the accuracy and reliability of performance assessments, enabling better decision-making and more effective management of project activities.

To maximize the benefits of monitoring and evaluation investments, it is essential to invest in training and capacity building for monitoring and evaluation staff and project implementers. Regular training sessions should be conducted to enhance the skills and knowledge of those involved in monitoring and evaluation monitoring and evaluation activities. This will ensure that they are equipped to handle complex data analysis, interpret results accurately, and use findings to make informed decisions that positively impact project performance.

Improving data collection and analysis methods is vital for obtaining accurate and actionable insights. The use of advanced data collection tools, including digital platforms and software, can streamline the process and enhance the quality of data. Additionally, employing sophisticated analytical techniques, such as regression analysis and correlation studies, will provide deeper insights into the factors influencing project performance. Regular reviews and updates of data collection and analysis methods should be conducted to adapt to evolving project needs and technological advancements.

Ensuring transparency and accountability in monitoring and evaluation activities is essential for building trust among stakeholders and promoting effective project management. Clear reporting mechanisms should be established to communicate monitoring and evaluation findings and progress to all relevant parties. Regular reports and reviews should be shared with stakeholders to keep them informed and engaged. This transparency will foster a culture of accountability, encouraging responsible management and timely interventions to address any issues that may arise. The insights gained from monitoring and evaluation activities should be used to drive continuous improvement in smallholder tea farming projects. Regular feedback loops should be established to integrate monitoring and evaluation findings into project planning and implementation. Lessons learned from past experiences should be documented and applied to future projects to enhance their effectiveness and sustainability. This iterative approach will help in refining project strategies and achieving better outcomes over time.

Engaging stakeholders in the monitoring and evaluation process is crucial for ensuring that their perspectives and needs are considered. Involving stakeholders, including farmers, community leaders, and local organizations, in monitoring and evaluation activities can provide valuable insights and enhance the relevance and impact of the project. Collaborative approaches to monitoring and evaluation will foster a sense of ownership and commitment among stakeholders, leading to more successful project outcomes. Enhancing budget allocation for monitoring and evaluation, strengthening monitoring and evaluation frameworks, investing in training, improving data collection and analysis methods, promoting transparency, utilizing findings for continuous improvement, and

encouraging stakeholder participation are key recommendations for improving the performance of smallholder tea farming projects. Implementing these recommendations will contribute to more effective project management and better outcomes for smallholder tea farmers in Nyamira County.

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Competing interest statement

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Author (s) Contribution Statement

The supervisors; Prof. Charles Mallans Rambo and Dr. Angeline Sabina Mulwa supervised the Author during thesis writing in the University of Nairobi, Kenya in which this manuscript is drawn from. The correspondent author, Stephen Moseria Mesa revised, developed and edited the manuscript according to the recommended guidelines.

References

- AFA - Tea Directorate. (2024). *Overview of the tea sector*.
<https://tea.agricultureauthority.go.ke/index.php/sectors/overview>
- Ateka, J. M. (2018). *Effects of firm size and green leaf marketing arrangements on small holder tea production* [Unpublished thesis].
- Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). Sage.
- Hamid, M., Rasool, S., Kiyani, A. A., & Ali, F. (2012). Factors affecting brand recognition: An exploratory study. *Global Journal of Management and Business Research*, 12(7), 74–82.
- Kamanga, P. (2023). Tea bonus debate shows why sector needs more reforms.
- Karlo. (2023). *Role of KALRO in tea reforms and achieving Beta Agenda*.
- Kenya Tea Development Agency. (2017). *Tea annual review for progressive tea leaves production sales*.
- Kohli, A., & Gupta, M. (2010). Improving operations strategy: Application of TOC principles in a small business. *Journal of Business & Economics Research*, 8(4). <https://doi.org/10.19030/jber.v8i4.713>
- Kothari, C. R. (2013). *Research methodology: Methods and techniques* (2nd ed.). New Age International Publishers.
- Mackenzie Bailey. (2023). *Transforming digital and content marketing for tea and coffee companies*.
- Mellenbergh, G. J. (2008). Tests and questionnaires: Analysis. In H. J. Adèr & G. J. Mellenbergh (Eds.), *Advising on research methods: A consultant's companion* (pp. 211–234). Johannes van Kessel Publishing.
- Mitei, Z. (2011). Growing sustainable tea on Kenyan smallholder farms. *International Journal of Agricultural Sustainability*, 1(9). <https://doi.org/10.3763/ijas.2010.0550>
- Moseria, M. S. (2025). *Monitoring and evaluation practices, project team dynamics, and performance of smallholder tea farming project in Nyamira County, Kenya* [Unpublished master's thesis]. University of Nairobi.
- Nyakweba, T. O. (2019). *Accessibility to financial services among tea farmers for their economic empowerment in Kisii County* [Master's thesis, Kabarak University].
- Nyamira County Agricultural Reports. (2015). *Annual agricultural reports: Nyamira County, Kenya*.
- Odhiambo, L. A. (2015). *Strategy implementation and performance of major tea factories in Kericho County, Kenya* [Unpublished master's thesis].



- Oirere, S. (2017). Kenya small growers opt for private buyers. *STiR Tea & Coffee Industry Bi-Monthly*.
<https://stir-tea-coffee.com/features/kenya-small-growers-opt-for-private-buyers/>
- Ondieki, S. (2016). *Influence of working environment on project team performance: Case of Sanganyi Tea Factory* [Unpublished thesis]. University of Nairobi.
- Revised Regulatory Impact Assessment Report. (2024). *Tea (Tea Levy) Regulations*.
- Tea Board of Kenya. (2021). *Price stabilization framework: A report of the technical working committee on design, development, and implementation of the tea industry price stabilization framework*.
- Tea Board of Kenya. (2023). *Kenya tea industry performance highlights for 2023*.
- United Nations Development Programme (UNDP). (2012). *Handbook on monitoring and evaluation for results*.
<https://www.undp.org>
- Wiggins, S., & Keats, S. (2013). *Smallholder agriculture's contribution to better nutrition*. Overseas Development Institute (ODI). <https://cdn.odi.org/media/documents/8307.pdf>
- Wordvice. (2021). *How to present the limitations of the study*. <https://blog.wordvice.com/how-to-present-the-limitations-of-the-study/>