



Socio-Economic Determinants of Livelihoods: A Case of Female-Headed Households in Kiambu, Kenya

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Abstract

Despite the Sustainable Development Goals and Kenya Vision 2030 policies, the households headed by women in Kiambu Town still face some challenges. This study focuses on the socio-economic impacts of income sources and saving plans on female-headed households in Kiambu Town Constituency. A descriptive research design was applied to 370 households with stratified random sampling. Questionnaires and interviews were used to collect data which was analyzed with SPSS (descriptive statistics, correlations, regression) and thematic coding for qualitative data. From the quantitative data, income sources substantially predicted ($\chi^2 = 125.417, p < 0.001$) financial stability. Formal employment was considered less stable, with only 25 percent of small businesses and 50 percent of farming being cited. Savings showed dependence on SACCOs (64.3 percent) and long-term (more than three years with 85.7 percent) savings although 57.2 percent still claimed to save insufficiently. Added constraints such as discrimination and limited opportunities were highlighted in the qualitative data. The article concludes that income sources and saving patterns shape the livelihoods' trajectory of female-headed households in Kiambu Town, but insecure income flows and informal erode coping synergies. Recommendations include income diversification, available adapted financial services, and increased market access, while maintaining social support benefits.

Subject Areas

Business Management

Keywords

Female-Headed Households, Livelihoods, Income Sources, Savings Plans, Kiambu, Kenya

1. Introduction

The United Nations regards female-headed households as highly vulnerable to risk due to socio-economic shocks, reliance on insecure income, limited access to capital or other assets, and unequal gender relations [1]. Global strategies to remedy poverty, such as the Sustainable Development Goals, do serve to illustrate, however, across the globe evidence shows that poverty caused by economic growth is not evenly distributed, nor is growth itself.

In Africa, women's impediment to economic opportunities is greater than men's (i.e., more barriers than men), and structural issues, economics and economics impact women's access to jobs and employment opportunities, as well as education, access to forms of credit and other socio-economic factors, such as unemployment or construction [2]. Specifically, evidence from studies conducted in Nigeria [3], South Africa [4], and Ethiopia [5] show that female-headed households rely on informal savings, some kind of transfer from the state (such as a grant,) and/or livelihood opportunities with low or no return (agriculture, informal trading etc.). Consequently, female-headed households are likely to be much more vulnerable to economic shocks compared to their male counterparts. Even in places that have policies (laws or strategies) specifically aimed at addressing gender inequality, discrimination persists in ways that continue to marginalize women's access to sustainable sources of income and productive assets [2] [6].

Kenya is not an exception in this regional picture. In urban and peri-urban contexts, female-headed households are constrained by limited access to small-scale production, limited ways to engage in casual labour, and reliance on microbusinesses which are constrained, unstable, and unpredictable income sources [7] [8]. Female-headed households make up about 37.4% of all households nationally [9]. In Kiambu Town Constituency, the proportion has been increasing steadily and is currently at 33.2% [10], which raises concerns about their robustness, as the majority rely on narrow sources of income and weak saving plans, so they cannot ensure decent living standards whilst being resilient to economic shocks. It is important to look at how their sources of income and saving capacity can impact their well-being and begin to craft policy that achieves poverty reduction in line with vision 2030.

Studies in Kenya highlight interventions such as cash transfers [11], but most evidence tends to rely on national-level data, descriptive analyses, and binary models. These approaches overlook constituency-level variation and fail to capture key aspects of saving behaviour, including SACCO membership, saving duration, and sufficiency. The lack of disaggregated, context-specific evidence severely limits the potential for policymakers to develop and implement effective strategies that will lead to increased financial security and the economic participation of women. In case this gap remains unfilled, female-headed households will consequently become trapped in the poverty cycle, their coping capacity will be reduced, and their contribution towards Kenya's Vision 2030 and the Sustainable Development Goals will diminish [12]. This study provides a response to that

need by identifying how sources of income influence the livelihood prospects of female-headed households in Kiambu Town Constituency. It also examines the overall role of saving plans in their well-being.

2. Literature Review

2.1. Introduction

This chapter presents literature that is relevant to socio-economic status. After reviewing the theoretical framework for the study, the literature that is related to socio-economic status is reviewed. Finally, there is a conceptual framework indicating the relationships among the variables that guided the research.

2.2. Theoretical Review

Feminist Theory started with Wollstonecraft's examination of the subordination of women and has evolved through strands such as global feminism and ecofeminism, emphasizing the socially constructed nature of gender inequality [13]. As used in this study, Feminist Theory explains how gendered norms close off women's access to resources, high-paying income sources, and financial decision-making power. While the closures present in Kiambu Town reveal largely women's engagement in informal and subsistence activities, little representation of higher return activities, and decreased discretionary control over household savings stream [9]. There is merit to quantitatively analyzing variables such as how participants are involved in labor force participation, whether their income source is either informal or formal, decision-making indices around savings, and the degree of autonomy in savings.

At the same time, critics highlight that Feminist Theory has the tendency to overexplain gender and underexplain intersecting dynamics like class or institutional barriers [12]. By itself, it fails to account for household-level economic activities like savings period, SACCO membership, or income diversification strategies. To this end, its use in this study is complementary. It provides a lens on how discrimination and social norms shape opportunity but must be merged with Resilience Theory in order to explain the economic results seen. Feminist Theory is clearly linked to the first objective of describing how gendered access limits involvement in stable or well-paying income streams, and to the second objective of illustrating how social norms limit autonomy in savings decisions. Its mechanisms exhibit adverse relations between gendered power arrangements and stability and sufficiency of savings income.

2.3. Empirical Review

This section plays an important transitional role that is designed to move from theoretical underpinnings to the practical implications seen in related contexts globally. By examining empirical studies, the researcher hopes to see emerging themes, locate findings that are important, and ultimately glean insights relevant to the study's objectives.

2.3.1. Income Levels and Economic Prospects of Female Headed Households

Empirical data continuously connect domestic income and economic practices with welfare consequences, though with little and methodologically unbalanced evidence on single-parent-headed households. Campbell *et al.* [14] used a cross-sectional comparative design of 27 European nations to determine whether single parents are poorer in health compared to partnered parents. With self-report physical and mental health measures, the research confirmed that single parents reported lower scores, most disadvantageously for the United Kingdom. Unfortunately effect sizes, response rates, and checks of measurement reliability were not provided. Besides, the sampling frame and how representative they were for this broad set of countries was not described. Omitting causal identification techniques or robustness testing leaves the finding to point towards correlation rather than causation processes.

Concurrently, Negesse *et al.* [15] also investigated female-headed household food insecurity prevalence in Ethiopia. Results showed much greater food insecurity rates in comparison to national standards. The investigation applied accepted measures, though prevailing data like sampling frame, sample size, and weight procedures were not given. This lack emphasizes the necessity of localized investigation which considers cultural variation. Hence, the current research aimed to investigate the particular context of female-headed households in Kiambu County with a view to offering focused information on how gender impacts economic opportunities and food security in the setting.

Annim and Frempong [16] examined the effect of saving and income on food diversity in Ghana. They found a positive link between planned household savings and enhanced food diversity. The study identified economic measures to enhance nutrition. The study did not, however, correct for endogeneity and so high income or education would save more and eat more diversified diets at the same time. No instrumental variables were analyzed, and effect size presentation and confidence intervals were not performed.

Omondi *et al.* [17] evaluated Inua Jamii cash transfer program in Siaya County, Kenya, applying binary logit regression. Findings indicated that involvement was associated with increased consumption and lower poverty probability. Even though emphasis on a program made practice salient, design did not control for omitted variable bias or selection bias. Robustness checks were not reported, and the binary logit model underestimated household heterogeneity. The study findings communicated associations instead of credible causal effects, therefore lowering their validity.

Combined, the studies indicate the same pattern: female-headed families are disadvantaged in terms of both income security and welfare status, and savings exist as only a partial cushion. Descriptive correlations of poor incomes with poor welfare are found throughout Europe, Ethiopia, Ghana, and Kenya, be it as health, food poverty, dietary diversity, or consumption. But causal inference is weak throughout the evidence base. Context affects outcomes: health inequities prevail in Europe,

food insecurity prevails in Ethiopia, and nutrition and saving are intrinsically entwined in Ghana. Pictured contradictions result from methodological limitations instead of material disagreement, particularly the inability to step outside endogeneity, selection bias, and the lack of use of good robustness tests. The safest conclusions are descriptive, verifying female-headed households as economically disadvantaged. The weakest are causal claims of program effects or channels for savings, dependent on poorly designed experiments and vaguely defined models.

2.3.2. Saving Plans for Households Headed by Female Households

Evidence shows the significance of household saving plans on economic resilience but systematic evidence on only female-headed households is patchy and methodologically weak or contextually limited. Hendriks [18] on the one hand, assessed women's savings schemes in the US, noting the importance of women's savings schemes for greater resilience, asset accumulation, and household bargaining power; it is revealing about women's economic empowerment. However, the study was conducted in the context of a developed country, and it is not clear if the evidence could be similarly applicable to sub-Saharan Africa. Additionally, the study did not disaggregate the analysis by household headship, and did not indicate whether money saving outcomes differ for female-headed households.

Similarly, Jawara [19] provides information on the impact of access to formal savings and the impact on welfare in Gambia. The focus was on spending, durable assets, health, and education outcomes. The author observed a significant positive relationship with saving access and amounts spent on education and durable goods, where health expenditure had a weaker relationship with education and durable goods. The study offers important insights except that it fails to provide a comparison of male- and female-headed households that were explored separately. Without knowing the difference during segregate analysis, it may not be possible to have insight into the gendered differences of saving plans nor the relationship between saving plans and household headship and the effects on saving behaviour or tendency to priority allocating resources.

Prina [20] showed more robust proof from Nepal through the examination of the execution of no-fee savings accounts among women in slums of informal settlements. About 84% of the women opened their savings accounts, and this led to higher expenditures on education, nutrition, and health needs. This research offered essential information on how savings influence welfare directly in female-headed families. Yet, the design never tested effect sizes or longer-term effects, so the size of the improvements is unknown. Failure to perform robustness checks also limits confidence in causal assertions.

Another regional study, such as Rikwntishe *et al.* [21] conducted in Nigeria, linked household saving behavior to entrepreneurship development, though the findings primarily concerned themselves with the male heads of the household. The study showed that household size reduced the potential to save among male entrepreneurs but failed to extend the same analysis to the female heads, creating a lacuna within empirical literature concerning the way savings work differently

across genders. This gap mirrors the comparative superficiality of attention for most research and the absence of explicit evidence on the saving behavior of female-headed households.

In Kenya, Suri and Jack [22] also provided insightful local evidence on the association of savings through mobile money to increase per capita consumption and poverty alleviation, particularly affecting female-headed households significantly. They posited that mobile savings-financial inclusion enhanced resilience, labor market transition, and poverty alleviation. Lack of reporting sample sizes and representativeness dissuades confidence in the external generalizability of the findings. Most importantly, although the descriptive linkages are intriguing, the study didn't employ causal identification methods and thus left on foot the endogeneity and selection bias risks.

As a group, these papers follow a similar pattern: savings benefit household well-being positively by raising consumption, education spending, and resilience to shocks. The majority of them, however, do not include female-headed households or overlook methodological limitations like reporting effect size, estimating causality, and robustness checks. Consequences are determined by context: in the US, bargaining power and empowerment ensue; in Nepal and Gambia, education and nutrition come first; in Kenya, mobile money links savings and poverty reduction. The strongest evidence is still descriptive, and causal assertions of the change potential of saving plans are debunked by immature models and inadequate reporting. This calls for localized, targeted evidence, as in the current study in Kiambu Town Constituency, to examine how saving plans in particular impact the well-being of female-headed households.

2.4. Conceptual Framework

Figure 1 illustrates how multiple socio-economic factors influence the livelihood

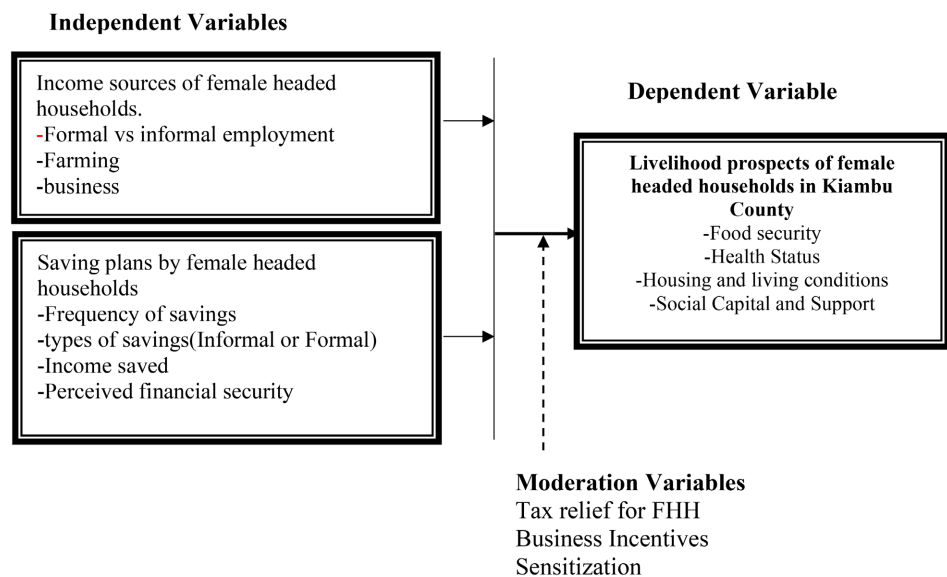


Figure 1. Conceptual framework.

prospects of female-headed households in Kiambu Town.

The dependent variable is the livelihoods prospects of these households, as evidenced by income stability, financial resilience and means of meeting basic needs. The independent variables are sources of income (formally employed, self-employed, and small business) and saving strategies. Sources of income contribute to the adequacy and stability of income, while saving strategies foster short-run financial stability, and help households better absorb income shocks. The moderating variables include ownership of sensitization and tax relief and business incentives, which, because they potentially increase access to resources, increase household financial literacy, or otherwise remove trade barriers for households in Kiambu Town, will allow such influence to be exerted at all.

3. Methodology

This study was conducted in Kiambu Town Constituency, Kiambu County, Kenya. The area is urban and peri-urban, with 9706 households established in four wards: Ting'ang'a, Ndumberi, Riabai, and Township [23]. Wards were purposely selected because of socio-economic variation and somewhat higher female-headed household counts. The target population was female-headed households in formal and informal sectors, while the local leaders, finance officers, social workers, and county officials were contacted as key informants. Institution-based points of view from the information providers complemented the household-level evidence.

The study used a descriptive survey design with a mixed method approach. Quantitative data through structured questionnaires and qualitative data through guides interviews were used for soliciting a little more in-depth insights [24]. After purposively selecting wards in which to conduct the study, households were randomly selected from ward listings in proportion to the size of the ward, that formed a proposed sample, in the case of 370 female-headed households. There were 350 completed questionnaires returned, representing a response rate of 94.6% and 20 non-responses (5.4%). The analysis used the 350 valid cases, after carrying out a quick non-response check to compare basic demographics of respondents with the sampling frame to evaluate if there might be any bias. The demographic survey instruments collected demographic information, the source of primary income, type of saving-plan, and a composite livelihood outcome. The source of primary income was measured in five categories: Formal employment, self-employment, business, farming, and others, incorporated without manipulation in chi-square tests.

The Likert items regarding economic challenges and saving perceptions were combined into scales. The combined scales produced a Cronbach's α of 0.82. For the purposes of internal consistency in social science research, values above 0.70 are usually acceptable levels of internal consistency, while values above 0.80 are considered good reliability [25]. This value of 0.82 offers some suggestion that these items were measuring a coherent construct, though it should be noted that this by no means demonstrates unidimensionality or precludes redundancy. Thus,

results should be interpreted with caution as associations, rather than claims of causation. Prior to multivariate analysis, the negligible nominal predictor variables were created as dummy-variables and the ordinal predictor variables mindfully were made as either ordered factors or as dummy variables, should they be suspected of non-linearity [26]. A composite index for the income-source favorability for ordinary least-squares (OLS) regression, and a continuous index for the saving-plan level for access and adequacy (both coded from poor to high). Higher scores indicated higher prospects on the livelihood index, and negative coefficients indicated lower outcomes. We also ran ordered logistic models, and marginal-effects estimates for sensitivity, using robust standard errors (clustered by ward) to adjust for any possible intra-ward correlations [27].

Qualitative interviews were recorded and thematically analyzed [24]. Codes were developed deductively through research objectives and a priori categories, and inductively from the participant narratives. Utilizing an iterative process of coding activity into multiple inductive clusters followed by consideration of their distinct clusters required consideration of socio-economic conditions, socio-economic coping strategies (tragedy, adaptation, survival, and movement), and/or institutional contexts. These clusters of codes evolved into identifying themes. Each of the emergent themes was considered through the frame of the quantitative trends to evaluate if there were areas of convergence, divergence, explain the relationship of the themes to each other and evaluate their value in the research objectives. The themes and sub-themes are presented in a triangulated format by combining statistical tables, graphs and spawning illustrative quotations. The combination of qualitative and quantitative forms of data analysis and their convergent areas solidified validity, demonstrating how qualitative accounts either supported and further elaborated survey data, or contributed a dimension of knowledge where survey data fails based on its use of numerical set. Ethics clearance and research authorizations were obtained from NACOSTI and St. Paul's University. Informed consent was acquired from all participants, and data were anonymised, properly stored, and managed to secure their confidentiality.

4. Findings and Discussion

4.1. Introduction

This chapter presents the study's findings, interpretations, and discussions. It begins with the response rate, followed by an analysis of the research objectives: the role of income sources in financial stability and the impact of savings plans on economic resilience.

4.2. Response Rate

Out of 370 questionnaires distributed, 350 were returned, yielding a response rate of 94.6 percent. The 20 unreturned questionnaires accounted for 5.4 percent of the total. This high response rate reflects strong participant engagement and strengthens the credibility and reliability of the results.

4.3. Income Sources and their Influence on Livelihood Prospects

4.3.1. Income Sources and Sufficiency

The study sought to understand how the different sources yield the sufficiency of household income from the perspective of female-headed households in Kiambu Town. More specifically, the study examined whether the different economic activities yield the financial security necessary for this group. To this end, a cross tabulation of the sources of income and the sufficiency of household income was conducted with a Chi-Square test conducted to assess whether there is a statistically significant relationship between the two variables. The results are summarized in **Table 1**.

Table 1. Cross-tabulation of income sources and household income sufficiency.

Primary Income Source (3a)	Sufficient Income)	Insufficient Income	Total
Formal Employment	0	100	100
Self-Employment	0	50	50
Business	25	25	50
Farming	50	25	75
Others	25	50	75
Total	100	250	350

Pearson Chi-Square (χ^2) = 125.417, p-value = 0.000, df = 4.

From **Table 1**, it can be determined that the source of income was significant in influencing household income sufficiency among households headed by female respondents. The data indicate that formal employment and self-employment significantly affected income sufficiency, with respondents in both groups recording insufficient income for household expenses. In farming and business ventures, the findings appear a little more evenly distributed with regard to sufficiency with 50% of female heads who farm and 25% of female heads who operate a business recording sufficient income. These results provide evidence that farming and business ventures produce more income sufficiency than the formal employment and self-employment sources of income. The results of the Chi-Square test (χ^2 = 125.417, df = 4, p = 0.000) support this assertion with a p-value of 0.000 indicating that there is negligible chance of this relationship occurring by chance. The calculated Chi-Square value (125.417) was much greater than the critical value (9.488) at $\alpha = 0.05$ and therefore, we reject the hypothesis of no relationship between income source and sufficiency of income.

These findings imply that the type of income source significantly determines the financial sufficiency of female-headed households. The fact that the calculated Chi-Square value far exceeds the critical value further strengthens the conclusion that income source plays a crucial role in determining financial well-being. These findings suggest that reliance on salaried employment or self-employment without diversification increases economic vulnerability, while engagement in farming

and business offers relatively greater financial security for female-headed households.

The qualitative data further reinforce these findings by providing personal experiences of financial constraints among female-headed households. Many respondents working in formal employment and self-employment cited financial struggles due to the rising cost of living, increased taxation, and unfavorable market conditions. These economic hardships were illustrated in statements such as:

“The salary I am earning is barely sufficient to meet my family needs” (R005, Field Data, 2024).

“As a self-employed person, the challenges are many” (R012, Field Data, 2024).

Conversely, respondents engaged in farming and business ventures expressed relatively greater financial stability. Some stated:

“Through income from my business, I am able to feed my family” (R007, Field Data, 2024).

“The farming I do is sufficient to meet my needs” (R010, Field Data, 2024).

Others emphasized the importance of income diversification, explaining that business ventures supplemented their farming activities, ensuring they could meet household needs. One respondent noted:

“My farm ensures I have food for my family, whereas my business supplements the other needs” (R3, Field Data, 2024).

This aligns with the quantitative findings that farming and business provide better financial security than other income sources. However, challenges such as fluctuating business performance and high costs of farm inputs still posed financial risks, as reflected in the following remarks:

“Sometimes business is low, hence meeting my household needs is not always possible” (R008, Field Data, 2024).

“The cost of buying inputs makes it difficult to earn a meaningful profit” (R006, Field Data, 2024).

The combination of qualitative and quantitative findings highlights the need for policies that strengthen income diversification, and financial resilience among female-headed households, aligning well with existing literature, and particularly with aspects of their economic outlook associated with financial hardship and coping strategies. Annim and Frempong [16], and Omondi *et al.* [17]’s studies show that although structured savings, and cash-transfer programs can contribute to economic security, this study argues that these programmes simply provide short-term measures, and do not address the underlying structural inequalities like inequitable wage structures along gendered lines, or access to credit. The study also discovered that certain income generating activities such as business and farming (as well as any type of income generating activity) thought to be more captioned to weathered related economic shocks, provide greater economic stability and financial resilience than wage employment, thus supporting Feminist Theory in regard to the gendered nature of economic structures. Ultimately, the

study supports a long-term economic empowerment approach that integrates multiple, diverse income, and improves peoples knowledge of managing financial literacy, and implementing gender-equitable policies that support sustainable development and gender equity for female-headed households in the Kiambu Town Constituency.

4.3.2. Economic Challenges of Female-Headed Households in Kiambu

This section reports quantified perceptions and links them to lived experience. Respondents rated statements on a five-point Likert scale. Findings come from 350 valid responses as show in **Table 2**. Balancing business and household responsibilities registered as the most acute constraint. All respondents agreed that it is very challenging (100.0%). Mean = 4.86, SD = 0.40. The high mean close to the scale maximum and the low SD indicate a near-universal consensus and little dispersion in responses. Taking care of the household limiting income diversification also scored near-universal agreement. Mean = 4.57, SD = 0.50. These two items point to a consistent pattern: unpaid care reduces time for income-generating activities.

Income inadequacy is widespread but heterogeneous. A majority (78.6%) reported their income sources do not meet household needs. Mean = 4.07, SD = 1.20. The higher SD shows variation in severity across households. Some families face extreme shortfalls. Others manage marginally with mixed livelihoods. Farming is widely viewed as unreliable. Disagreement that farming is a reliable income source was 57.1 percent. Only 28.6 percent agreed that farming provides stable support. Mean = 2.79, SD = 1.20. The mean below midpoint and the high SD indicate that a minority benefit from agriculture while most do not. Perceptions point to market and climatic constraints rather than intrinsic unsuitability of farming. Disagreement that government assistance boosted incomes stood at 57.1 percent. Mean = 2.43, SD = 1.10. The low mean and moderate dispersion suggest uneven program reach and limited effectiveness as perceived by respondents.

Qualitative data illustrate mechanisms behind the numbers. Respondents linked time poverty to lost business opportunities. One respondent stated, “*In a*

Table 2. Perceived economic challenges among female-headed households in Kiambu town constituency.

Statement	Disagreement	Neutral	Agreement	Mean	Std. Dev.
Balancing business and household responsibilities is very challenging	-	-	350 (100.0%)	4.86	0.4
Taking care of the household limits my ability to diversify income sources	-	-	350 (100.0%)	4.57	0.5
My current income sources are not enough to meet my household needs	75 (21.4%)	-	275 (78.6%)	4.07	1.2
Farming provides a reliable source of income for my household	200 (57.1%)	50 (14.3%)	100 (28.6%)	2.79	1.2
The county government has been of assistance in boosting my income sources	200 (57.1%)	65 (18.6%)	85 (24.3%)	2.43	1.1

case where a woman has a family, it is difficult to balance family and business.” (R113, Field Data, 2024). Respondents blamed market access and input costs for poor agricultural returns. “Lack of a ready market for farm produce results in losses.” (R329, Field Data, 2024). These quotations confirm that the quantitative patterns reflect concrete constraints.

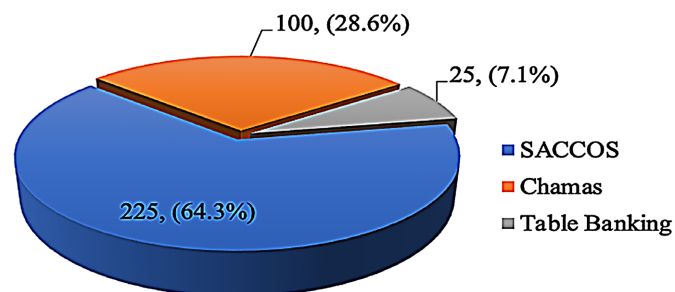
Comparison with prior work shows general agreement but no causal resolution. The dominance of care burdens echoes findings in other settings [15]. Perceived agricultural unreliability aligns with regional reports on input costs and market failures [12]. Perceived weak state support matches documented gender gaps in access to financial aid [10]. This study adds constituency-level specificity and triangulates survey data with local testimony. It does not prove causality.

Implications for policy and practice are direct. Reduce unpaid care burdens through public or subsidized childcare and through labor-saving infrastructure. Simplify business registration to lower bureaucratic barriers for micro-entrepreneurs. Improve market linkages for smallholders and subsidize critical inputs where justified. Re-target county support to reach female-headed households with transparent eligibility and outreach. Strengthen financial products that fit irregular incomes instead of imposing rigid repayment schedules.

4.4. Savings Plans and Livelihood Prospects of Female-Headed Households

4.4.1. Saving Plan Preferences

The financial choices and savings practices of female-headed households are critical in understanding their livelihood prospects. **Figure 2** below gives the findings on respondents’ most preferred saving plans.



Source: Field Data (2024)

Figure 2. Distribution of respondents based on their most preferred saving plans.

Out of the 350 respondents who took part in the survey, 64.3% preferred SACCOS as their saving plan, with 225 individuals choosing this option. ‘Chamas’ were the preferred saving plan for 28.6% of the respondents, accounting for 100 individuals. Table Banking was selected by 7.1% of the respondents, representing 25 individuals. This distribution reflects the various saving preferences within the sample.

The results of the survey show a clear preference for SACCO’s as the primary saving mechanism among female-headed households in Kiambu Town Constituency, with

64.3% of respondents selecting this option. This preference highlights the perceived reliability and security of formal, regulated financial institutions in managing savings. SACCOS are likely viewed as offering better access to credit, savings, and other essential financial services that contribute to managing the livelihood challenges faced by these households.

The qualitative data further reinforce these findings by providing personal experiences that highlight the role of SACCOS in supporting female-headed households. A financial institution representative noted,

“SACCOS are the backbone of many female-headed households in Kiambu. They offer structured savings plans and easy access to credit, which helps women enhance their businesses and meet their daily needs” (Key Informant 001, Field Data 2024).

This remark underscores the essential role that SACCOS play in providing both financial security and opportunities for growth, acting as a crucial lifeline for many women in the constituency. In addition to SACCOS, ‘Chamas’ are also a preferred financial option, as indicated by 28.6% of the respondents. This may be attributed to their accessibility and flexibility compared to formal institutions, along with the added advantage of being embedded in trusted social networks. ‘Chamas’ offers not only financial support but also foster a sense of community and mutual aid, which is especially important for female-headed households. A community leader emphasized,

“Chamas provide women with a sense of community and support. It’s not just about saving, but about sharing resources and helping each other in times of need.” “SACCOS are the backbone of many female-headed households in Kiambu. They offer structured savings plans and easy access to credit, which helps women enhance their businesses and meet their daily needs” (Key Informant 001, Field Data 2024).

On the other hand, Table Banking appears to have relatively limited appeal, with only 7.1% of respondents selecting this method. This may be attributed to its informal nature and the lack of widespread understanding and trust compared to SACCOS and Chamas. A local government authority commented,

“While Table Banking is gaining attention, its reach is still limited. Many women prefer the structure and security offered by SACCOS and Chamas, which have long been part of the community fabric.” (Key Informant 001, Field Data 2024).

This statement reinforces the notion that Table Banking, despite its growing popularity, lacks the same level of structure and trust that SACCOS and Chamas offer to female-headed households in Kiambu Town.

These findings are consistent with previous studies, which have shown that women, particularly those in rural or semi-urban areas, often prefer savings options that provide both financial benefits and a sense of social support. Research by Nyongesa and Odhiambo [11], highlights the role of community-based savings groups like Chamas in promoting financial inclusion for women, while SACCOS

are identified as reliable institutions for women seeking formal financial services. Additionally, a study by Rikwntishe *et al.* [21] also pointed out that despite the potential of informal savings methods like Table Banking, they often face challenges related to trust and sustainability when compared to more established financial mechanisms like SACCOS and Chamas.

This further supports the preference observed in this study for SACCOS and Chamas over Table Banking among female-headed households in Kiambu Town.

4.4.2. Saving Duration

The study also aimed to evaluate the prevalence of long-term saving among female-headed households by asking respondents, “For how long have you been saving your income?” The findings are summarized in **Table 3** below.

Table 3. Duration of saving practices.

Duration	Frequency	Percent
2-3 years	50	14.3
More than 3 years	300	85.7
Total	350	100

A large proportion of respondents, 85.7%, have been saving for over three years, reflecting the household’s commitment to financial planning and security. This trend may indicate a proactive approach to managing economic challenges, building financial resilience, and securing their households’ future. The fact that a small percentage (14.3%) of respondents have only been saving for 2 to 3 years may suggest that some female-headed households are still in the early stages of developing saving habits, possibly due to fluctuating income levels or other economic constraints.

Interviews with key respondents further support this interpretation. A financial institution representative shared, “*Saving practices are prevalent, especially among women who have established a steady income, either from formal employment or small-scale businesses. Long-term saving helps them create a safety net for their families.*” This aligns with the data showing the dominance of long-term saving practices.

Moreover, a community leader pointed out, “*The challenges women face, particularly those in informal sectors, often hinder consistent saving. However, once they stabilize their income, many develop long-term saving plans as a way to protect their families from unforeseen financial shocks.*” This highlights that while there are challenges, the tendency toward long-term saving is a clear strategy for financial security. Lastly, a local government authority observed, “*The benefits of saving are significant; it allows women to access credit and improve their livelihoods. However, it’s important that the savings be stable over time, which is why long-term plans are critical.*” This suggests that while some female-headed households face challenges in starting or maintaining savings, long-term saving is

viewed as a necessary tool for economic empowerment and resilience.

4.4.3. Perceptions and Challenges of Saving Practices

The study assessed the perceptions and challenges of saving practices among female-headed households. Respondents were asked to indicate their level of agreement with different statements regarding their saving habits and experiences. The results are presented in **Table 4**.

Table 4. Perceptions and challenges of saving practices among the respondents

Statement	Disagreement	Neutral	Agreement	Mean	Std. Dev.
We have sufficient saving plans that significantly contribute to the sustainability of my household	200 (57.2%)	25 (7.1%)	125 (35.7%)	2.79	1.32
I believe that saving money is an unrealistic or unnecessary financial strategy for female-headed households	250 (71.4%)	25 (7.1%)	75 (21.5%)	2.07	1.34
Most female-headed households heavily rely on savings to meet their financial needs	75 (21.4%)	75 (21.4%)	200 (57.2%)	3.29	1.16
My savings are inadequate to cover the essential needs of my household	150 (42.8%)	25 (7.1%)	175 (50.1%)	3.21	1.32

The findings indicate mixed perceptions about the adequacy and role of savings. A majority (57.2%) disagreed that they had sufficient saving plans to sustain their households, reflected in the low mean score ($M = 2.79$, $SD = 1.32$), showing that many households felt their savings arrangements were insufficient. Similarly, 71.4% rejected the notion that saving money is unrealistic or unnecessary, suggesting a strong belief in the value of saving, though the low mean ($M = 2.07$, $SD = 1.34$) also reflects variations in how this belief is applied in practice.

On the other hand, 57.2% agreed that female-headed households heavily rely on savings to meet their financial needs, supported by a relatively higher mean ($M = 3.29$, $SD = 1.16$), indicating that despite challenges, savings remain a critical financial strategy. Furthermore, half of the respondents (50.1%) agreed that their savings were inadequate to meet essential needs, with a mean of 3.21 ($SD = 1.32$), pointing to financial vulnerability despite recognition of the importance of saving. Overall, while saving is perceived as important, most female-headed households face challenges in maintaining adequate savings to achieve sustainable financial stability.

Qualitative data from key informants reinforce these findings. A financial

institution representative noted:

“Most female-headed households recognize the importance of saving, but their income levels often determine their ability to sustain consistent saving plans. Many struggle with competing financial priorities.” (Key Informant 004, Field Data 2024).

A community leader also observed that:

“Savings are a necessity, not a luxury, but the challenge is that many female-headed households earn irregular incomes, making it difficult to set aside money consistently.” (Key Informant 003, Field Data 2024).

A local government official added:

“While financial institutions offer structured savings plans, uptake among female-headed households remains low due to limited financial literacy and the pressing need to meet daily expenses.”

The results of this study are consistent with previous research which found financial constraints as a key obstacle to savings for female-headed households, indicating that although women value saving, they often face financial constraints influenced by income instability, high dependency, and a lack of access to formal financial services. However, many female-headed households often prioritize saving, and utilize informal savings schemes like Chamas and SACCOS, although these savings may be a result of financial challenges. Overall, these findings provide important insights, confirming that savings is valued by female-headed households, and that, such financial constraints limit the effectiveness of savings. The study also identifies gaps related to intention to save, as well as suggesting the need for improved financial tools that encourage the sustainability of female household savings.

4.5. Regression Analysis on Factors Affecting Livelihood Prospects of Female-Headed Households in Kiambu County

Regression analysis tested how income sources and saving plans predict livelihood prospects among female-headed households (N = 350). The results are presented in **Table 5**.

Table 5. Regression coefficients.

Predictors	Unstandardized Coefficients (B)	Std. Error	Standardized Coefficients (Beta)	t	Sig.
Constant	2.575	0.531	-	4.848	0
Income Sources	-0.074	0.015	-0.23	-5.019	0
Saving Plans (SACCOS, Chamas, Table Banking)	-0.167	0.019	-0.521	-9.028	0

Model Summary: R = 0.644; R² = 0.415; Adjusted R² = 0.408; Std. Error = 0.34799.

The regression model accounted for 41.5% of the variance in livelihood prospects (R = 0.644; R² = 0.415; Adjusted R² = 0.408; Std. Error = 0.348), indicative

of a moderate fit for cross-sectional social data. Both predictors were statistically significant at $p < 0.001$. Income sources had a negative effect ($B = -0.074$, $\beta = -0.230$, $SE = 0.015$, $t = -5.019$), indicating that a one-unit increase in the income-sources measure would be associated with a 0.074 unit decline in livelihood prospects, controlling for saving plans. Saving plans (SACCOs, chamas, table banking) also had a negative effect ($B = -0.167$, $\beta = -0.521$, $SE = 0.019$, $t = -9.028$), where a one-unit increase was correlated with a 0.167 unit decline in livelihood prospects, controlling for the income sources. The standardized coefficients indicated that saving plans had a stronger association with livelihood prospects compared to income sources. Qualitative data provide additional context to these findings. For example, one participant noted, “*I don’t want to think about when I have no regular job to get money; it’s like I’m sinking. I have no plan to save anything, and my income is variable.*” (Respondents 009, Field Data 2024). That said, it highlights the vital impact that stable income sources have on financial fitness.

Current findings align with Suri and Jack [22] who illustrated how saving plans contribute to household welfare per previous research. Their results show that saving plans have increased level of consumption per capita and lifted about 194,000 Kenyan households, roughly 2% of Kenyan households, out of poverty. The authors argued, in particular, that such saving strategies have benefits especially among female-headed households, partly from improving financial behavior, resilience, and results in the labor market such as transition from agriculture to entrepreneurship. The current study has much in common with Suri and Jack’s study and reinforces the importance of saving plans and sources of income as contributors to financial stability. Here, the negative coefficients ($B = -0.074$ for income source and $B = -0.167$ for saving plans) are both significantly associated with a decline in income sufficiency, so both limited income diversification and limited saving plans have the potential to contribute to non-well-being among low-income female-headed households. We are in agreement with Suri and Jack on the impact that saving plan, a type of effective financial strategy, or income source can have on the lives of these households. Additionally, Suri and Jack conclude effective financial strategies, particularly saving plans, are important to the improved livelihoods of vulnerable households.

Overall requirements for finding and assessing the effects of predictors affecting livelihood outcomes for female-headed households in Kiambu County have been met. Beyond the academic requirements to be fulfilled, if we move an income-earning and savings possibilities requirements first due to the dilemma involved not explicit the social issues directly associated with its social and cultural norms such as gender discrimination, then the livelihood outcomes of female-headed households can be altered via policy to enable them to be more resilient, self-sufficient and less reliant upon external support for sources of subsistence.

5. Conclusion and Recommendations

The study finds that sources of income and saving plans carry significant weight

in determining the livelihood prospects of female-headed households in Kiambu Town, albeit not always in a positive way. As formal employment and self-employment may lead to financial sufficiency, farming and running business activities appear to provide relatively more stable financial sufficiency. The regression analysis indicates that both sources of income and savings plans have negative correlations with livelihood outcomes, meaning that households relying on unstable sources of income and informal savings, or savings that carry a financial burden to the households, may not be able to fully build resilient households. Qualitative data also demonstrate these patterns, with the qualitative data yielding challenges that households experience such as time poverty, high input costs, unstable income streams, and barriers to markets. Although the regression model accounts for only a moderate amount of variation in the livelihood prospects of the female-headed households in Kiambu Town, significant factors remain unaccounted for. The impact of social networks, access to credit, and the dynamics of the surrounding local economy cannot be overlooked. This indicates that for households, a financial input is not the sole determinant of household well-being.

The recommendations of this study acknowledge the need for a multidimensional focus for interventions targeting female-headed households, particularly when developing combinations of agriculture, business, and stable wage strategies that seek to diversify income sources. The study recommends extending formal savings and credit opportunities targeted towards those with irregular incomes, as well as financial literacy interventions as a way to build the capacity of female-headed households to manage their resources. The study has highlighted the importance of reducing unpaid care burdens, through subsidized child care or labor-saving infrastructure, as a way of giving time for income-generating activities. The recommendations further highlight the need to improve market access for smallholders and micro-entrepreneurs, stabilizing small-holder and micro-entrepreneur farm and business returns, and ensuring that counties develop transparent, targeted interventions to support women's businesses. Finally, the study emphasizes the importance of cautious piloting and monitoring these interventions, and there is no simple solution as informal savings arrangements provide social support benefits that cannot be fully replicated by formalization.

Conflicts of Interest

The authors declare no conflicts of interest.

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