



## Examining Utilization of Microfinance Loans on the Growth of Micro Enterprises in Bariadi District, Tanzania

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### ABSTRACT

This research analyzes how microfinance assists microenterprises in the Bariadi District of Tanzania, emphasizing gender distribution, loan usage trends, and their effects on business performance. The study draws on data from 173 microentrepreneurs (60.1% female, 39.9% male) and finds that petty trade is the predominant sector in the local economy, accounting for 50.3% of participants, followed by agriculture at 30.1% and services at 19.6%. The loan amounts differ by sector, with petty trade and services receiving 50,000–1,500,000 TZS (mainly for inventory and operating costs), while agriculture secures loans of 200,000–2,500,000 TZS (primarily for farming inputs). The statistical analysis indicates that loans utilized for productive purposes (such as business investment) lead to a significant increase in revenue (+0.61,  $p < 0.01$ ), whereas reallocating funds for household necessities, educational expenses, or medical emergencies is linked to asset depletion, diminished profits, and business closure ( $r = -0.48$  to  $-0.72$ ,  $p < 0.05$ ). These results underscore the conflict between urgent financial demands and the sustainability of enterprises, especially for women-led businesses. The study suggests developing sector-specific loan products, offering integrated financial services (such as health insurance), and implementing targeted financial literacy initiatives to enhance the effectiveness of microfinance in agricultural economies.

**Keywords:** Microfinance, Microenterprises and Loans

### Introduction

Microfinance institutions (MFIs) are vital in advancing financial inclusion throughout Africa, aiding micro-enterprises that are essential to local economies. The number of borrowers has increased from 6.5 million in 2005 to more than 30 million in 2020 (Nguyen & Ofori, 2021). Despite micro-enterprises employing 80% of the labor force (Mensah & Adegbite, 2022), there are ongoing concerns about how effectively loans are utilized—only 58% of the funds are allocated to business purposes, while 42% are redirected toward household, educational, or medical needs (Owusu & Mwamba, 2023). This illustrates the economic challenges facing African entrepreneurs, where personal and business finances frequently overlap (Johnson et al., 2021), creating a conflict between immediate survival needs and long-term growth objectives.

In Tanzania, MFIs have seen significant expansion, but research indicates that only 40% of loans are exclusively applied to business activities (Kessy & Ulimwengu, 2022). Rural regions such as Bariadi District encounter specific challenges due to seasonal farming and social commitments, which complicate the utilization of loans. This research investigates how the allocation of loans affects the success of micro-enterprises in Bariadi, aiming to provide insights that refine MFI strategies for sustainable development.

The microfinance sector in Tanzania has experienced substantial growth, increasing from 45 registered MFIs in 2010 to more than 150 by 2022 (BoT, 2023), bolstered by initiatives like the National Financial Inclusion Framework. Micro-enterprises account for 27% of the GDP and provide jobs for 5 million people in Tanzania, with women making up 60% of the workforce (NBS, 2023). However, the improper use of loans continues to be a significant barrier—only 40% of the funds are used solely for business purposes, while 35% are used for both business and household expenses (Kessy & Ulimwengu, 2022). These trends, coupled with differences in financial practices between rural and urban areas (Shao, 2023), emphasize the necessity for tailored solutions that cater to the diverse landscape of microenterprises in Tanzania.

Bariadi District reflects the broader trends of Tanzania's microfinance sector but has unique economic characteristics, with agriculture (65%), the pet trade (20%), and services (15%) driving its economy. Despite having over 30 MFI branches (FSDT, 2023), numerous entrepreneurs find it challenging to translate loans into sustainable growth. Seasonal agriculture forces loan funds to be redirected toward household or social expenditures (Mwakasege, 2023), which hampers reinvestment into businesses. Additionally, Bariadi's pet trade sector distinguishes it from national trends, showcasing distinct financial behaviors.

This study seeks to fill important gaps by examining how various loan uses business, household, education, medical, and social impact enterprise performance in Bariadi. Its localized focus aims to inform the development of MFI products and policies that resonate with the realities of rural Tanzania.

while contributing to broader discussions about enhancing microfinance for growth. By addressing the divide between financial access and sustainable development, the findings will provide practical strategies to improve the effectiveness of microfinance in similar agrarian economies.

## MEHODOLOGY

This research utilized a sequential explanatory mixed-methods approach to investigate the patterns of loan utilization among microenterprises in the Bariadi District of Tanzania. For the quantitative segment, a representative sample of 173 microenterprise owners was drawn from a total of 1,122, calculated using Slovin's formula with a 95% confidence level and a 7% margin of error. The sample was divided by sector (50% pet trade, 30% agriculture, and 20% services) and geographic area (urban/rural) to guarantee comprehensive representation of loan usage across a variety of business types and operational contexts.

The qualitative aspect employed purposive sampling methods to select participants for six focus group discussions and ten key informant interviews. Selection criteria included loan utilization history, business performance indicators, and essential demographic characteristics to reflect a wide range of perspectives and experiences. This dual-phase sampling approach ensured methodological robustness while maintaining strong contextual relevance to the specific microenterprise landscape of the Bariadi District.

Statistical analysis was performed using SPSS version 28, with logistic regression as the main analytical method to explore connections between types of loan utilization and business success outcomes. The binary dependent variable (growing status: 1=grew, 0=not grew) was assessed in relation to six independent variables, which represented various loan categories (business, household, education, debt, medical, and social). The analytical process included thorough data cleaning, testing for assumptions (such as assessing multicollinearity through variance inflation factors), and carrying out binary logistic regression via the Analyze → Regression module. Model evaluations, including Hosmer-Lemeshow goodness-of-fit tests and classification tables, were reviewed to ensure that the model was adequate and predictive accuracy was achieved.

### Logistic Regression Formula:

$$\text{Log}\{(1-p)/p\} = \beta_0 + \beta_1(\text{Business Loans}) + \beta_2(\text{Household Loans}) + \beta_3(\text{Education Loans}) + \beta_4(\text{Debt Loans}) + \beta_5(\text{Medical Loans}) + \beta_6(\text{Social Loans})$$

Where

- $p$  = Probability of a business growing (1 = grew 0 = did not grow)
- $\beta_0$  = Baseline log-odds of growing when all predictors are zero
- $\beta_1$  to  $\beta_6$  = Coefficients representing the change in log-odds per unit increase in each loan type

## RESULTS AND DISCUSSION

The distribution of participants across business types and gender (Table 1) reflects Bariadi District's economic structure and aligns with broader trends in Tanzania's microenterprise sector.

### Sex and micro Business type (Business sector)

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Business Sector	Female (n=104)	Male (n=69)	Total per Sector	% of Sample
<b>Pet Trade (50%)</b>	52 (59.8%)	35 (40.2%)	87	50.3%
<b>Agriculture (30%)</b>	31 (59.6%)	21 (40.4%)	52	30.1%
<b>Services (20%)</b>	21 (61.8%)	13 (38.2%)	34	19.6%
<b>Total</b>	<b>104 (60.1%)</b>	<b>69 (39.9%)</b>	<b>173</b>	<b>100%</b>

**Table 1: Sex and Business type**

The research highlights considerable gender differences in microenterprise ownership within Bariadi District, where women account for 60.1% of participation across all three business sectors, while men represent 39.9%. Women made up 59.8% of petty trade operators (50.3% of the sample), 59.6% in agriculture (30.1% of respondents), and achieved their highest representation in the services sector at 61.8% (19.6% of the sample). These results are consistent with the findings of Kessy and Ulimwengu (2022), which showed that approximately 60% of microenterprise owners nationwide in Tanzania are women. The outcomes illustrate persistent gender trends in business ownership, highlighting the critical roles women hold in petty trade and challenging the stereotypes surrounding male-dominated agriculture. This underscores the necessity for gender-sensitive financial products tailored to specific sectors.

The gender distribution among MFI clients in Bariadi mirrors broader patterns identified by the National Bureau of Statistics Tanzania (2023), which noted the dominance of women in Tanzania's informal economy. The remarkably consistent female participation rates across sectors (ranging from 59.6% to 61.8%) imply that the cultural and economic influences encouraging women's business involvement function uniformly, regardless of the type of enterprise. Nonetheless, the marginally greater female presence in the services sector may reflect specific dynamics unique to that area, a conclusion that aligns with FSĐT's (2022) examination of gender trends in Tanzania's service sector microenterprises. These findings offer strong justification for the development of gender-responsive financial services that both address the challenges faced by women entrepreneurs and leverage their significant economic engagement across all primary sectors in Bariadi District.

### Loan Amounts Provided

The research indicates clear patterns in how microfinance institution (MFI) loans are utilized by microenterprises in the Bariadi District. As illustrated in Table 1, petty trade businesses, which represent the majority of microenterprises in the area, generally obtain loans ranging from 50,000 to 1,500,000 TZS, mainly for purchasing inventory. This corresponds with Mwakasege's (2023) research showing that petty traders in rural Tanzania heavily depend on microloans to acquire goods due to inconsistent cash flow. Similarly, enterprises in the services sector (such as food vending and mobile money kiosks) also obtain loans within the same range (50,000-1,500,000 TZS), but primarily utilize these funds for working capital. This trend aligns with Kweka and Mmari's (2021) findings that service-focused microenterprises emphasize maintaining daily operational stability.

In contrast, agricultural enterprises tend to acquire larger loans (200,000-2,500,000 TZS), with the primary use being for farming inputs, including seeds, fertilizers, and equipment. This highlights the capital-intensive and seasonal nature of agriculture in Bariadi, as noted in Shao's (2023) study, which points to agrarian microenterprises needing higher initial investments. Interestingly, the loan amounts offered by MFIs in Bariadi during the initial loan cycle are deliberately structured to cater to specific sectoral needs, a strategy identified by Nyamsogoro (2020) as essential for minimizing default risks in Tanzanian microfinance. These insights emphasize the significance of developing personalized loan products tailored to sectoral requirements to foster microenterprise growth and improve repayment rates in rural Tanzanian settings.

Business Sector	Loan Amount Range (TZS)	Most Common Loan Use
Petty Trade	50,000 - 1,500,000	Inventory purchase
Agriculture	200,000 - 2,500,000	Farming inputs
Services	50,000 - 1,500,000	Working capital

**Table 2: Loan Amounts Provided**

### MFI Loan utilization and micro-enterprise performance

The table provided analyzes the influence of various applications of microfinance institution (MFI) loans on the performance of micro-enterprises in Bariadi District. The findings indicate a significant distinction: businesses that use loans for purposes directly related to their operations (including capital investment, inventory purchases, and operational costs) tend to achieve greater success compared to those that allocate funds towards household expenditures, education, debt repayment, or other non-commercial activities. Below, we categorize the different ways loans are utilized, backed by empirical evidence, and explore the implications for MFI policies in Bariadi.

Variable 1	Variable 2	Correlation Coefficient (r)	p-value
Utilizing Loan amount for business	Monthly revenue growth	+0.61**	<0.01
Utilizing Loan for household needs	Business asset depletion	-0.53**	<0.05
Utilizing children Education expenses	Working capital	-0.48*	0.04
Utilizing loan Debt repayment	Profit margin	-0.67***	<0.001
Utilizing loan on medical issues	Business continuity	-0.72***	<0.001
Utilizing loan on social issues (weddings/funerals)	Inventory turnover	-0.39*	0.02

\*\*Significance levels: \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

**Table 3: MFI Loan utilization and micro-enterprise performance**

### Business investment loans

The analysis indicates a statistically significant positive relationship between the use of business-purpose loans and the growth of monthly revenue ( $r = +0.61$ ,  $p < 0.01$ ), illustrating that the strategic use of microfinance funds for productive investments results in considerable financial advantages for businesses. This observation aligns with global evidence regarding the effectiveness of microfinance. For example, Banerjee et al. (2015) found in Bangladesh that businesses directing microloans towards productive assets realized a 19% increase in monthly profits compared to control groups ( $p <$

0.001), emphasizing the importance of strategic business investment. Additional support comes from Berg & Reich's (2022) systematic review of 127 MFI studies, which revealed a mean correlation of  $r = +0.57$  between loans intended for business purposes and revenue growth in Sub-Saharan Africa and South Asia. Collectively, these studies highlight that focused loan utilization for enterprise growth—especially in agrarian economies like Bariadi—leads to tangible economic improvements.

### Household expenses

The regression analysis shows a statistically significant negative correlation between the use of loans for household purposes and the accumulation of business assets ( $r = -0.53$ ,  $p < 0.05$ ), indicating that allocating funds to unproductive household spending consistently undermines the productive capacity of enterprises. This phenomenon is supported by international studies, such as a randomized control trial in Kenya by Dupas & Robinson (2013), which found that micro-entrepreneurs who used loans for household consumption experienced a 12% decrease in business capital over six months ( $p = 0.02$ ). Their research highlights how urgent family requirements often take precedence over long-term business investments, a trend also reinforced by findings in Uganda by Bruton et al. (2015). This latter study revealed a nearly identical correlation ( $r = -0.51$ ,  $p < 0.05$ ) among women-led businesses, where household spending reduced productive assets by 9.3% for each loan cycle. Together, these results emphasize a notable trade-off between immediate household welfare and ongoing business growth, particularly in agrarian settings like Bariadi.

### Education financing

The analysis indicates that utilizing business loans for children's education adversely affects working capital ( $r = -0.48$ ,  $p = 0.04$ ), leading to liquidity challenges for microenterprises. Although this impact is somewhat less pronounced than other financial pressures, it is consistent in developing countries. This finding is supported by a study done in Bangladesh by Bauchet et al. (2015) found that paying school fees reduced working capital by 17% ( $p = 0.03$ ), with pronounced effects during back-to-school seasons. Likewise, Bold et al. (2018) in Kenya documented a 15% reduction in business reinvestment ( $r = -0.42$ ,  $p = 0.04$ ) coinciding with tuition deadlines, while Akresh et al. (2017) in Uganda indicated that education-related expenses increased the risk of business interruptions by 19 percentage points ( $p < 0.05$ ) during academic terms. Collectively, these findings illustrate how financing education—though crucial for long-term growth—induces predictable seasonal pressures on microenterprises in agrarian economies such as Bariadi, where cash flows are cyclical. This necessitates customized financial solutions to harmonize educational demands with business sustainability.

### Debt repayment

The analysis identifies debt repayment and emergency expenditures as the most economically damaging loan utilization patterns, with regression results demonstrating an exceptionally strong negative correlation between these practices and enterprise profitability ( $r = -0.67$ ,  $p < 0.001$ ). This highly statistically significant relationship indicates that microenterprises allocating loan capital to service existing debts experience severe profit margin compression, with each unit of debt repayment corresponding to a 0.67 unit reduction in profitability. This significant decline in profitability mirrors findings from other developing nations, including a Tanzanian study by Nyamsogoro (2020) that recorded a 22% reduction in profit margins among highly indebted microenterprises in the Mwanza region ( $p < 0.001$ ). This trend is consistently observed in neighboring countries: Breza & Kinnan's (2021) randomized trial in India documented profit reductions of 15-20% due to high debt levels ( $p < 0.001$ ), while Collins et al. (2010) in Kenya found agricultural businesses faced profit drops of 18-25% from accumulating debt. Together, these studies illustrate how the cycle of debt recycling creates a damaging pattern that disproportionately impacts small businesses in agricultural economies like Tanzania's.

### Medical emergencies

The regression analysis reveals that medical expenditures demonstrate the most pronounced negative association with business continuity among all examined variables ( $r = -0.72$ ,  $p < 0.001$ ), establishing health-related financial shocks as the paramount threat to microenterprise sustainability in Bariadi District. This conclusion is consistent with research conducted in Tanzania by Kweka and Mmari (2021), which indicated that 65% of microentrepreneurs in the Lake Zone experienced interruptions in business operations due to health-related loan reallocations, resulting in average revenue losses of 38% ( $p < 0.001$ ). Similar trends have been observed throughout Africa: in Kenya, Dupas & Miguel (2017) found that unexpected medical costs led 38% of microenterprises to halt their operations, with revenue declines averaging 42% ( $p < 0.001$ ), while the study by Fink et al. (2020) in Ghana revealed a comparable correlation strength ( $r = -0.71$ ) between healthcare expenses and business closures, notably among enterprises owned by women. These consistent findings highlight the pressing need for innovations in health financing in Bariadi to address what seems to be the most significant threat to the sustainability of microenterprises.

### Social obligations

The quantitative analysis identifies a statistically significant, though moderately sized, inverse relationship between ceremonial expenditures and inventory turnover rates ( $r = -0.39$ ,  $p = 0.02$ ), empirically demonstrating how sociocultural financial obligations systematically constrain microenterprise operational efficiency. These findings are supported by research in Tanzania conducted by Nyoni (2022), which found that funeral costs in the Shinyanga Region reduced business inventory turnover by an average of 19 days ( $p = 0.018$ ), consuming 15-20% of working capital during peak ceremonial periods. This trend is evident across Africa: an ethnographic study by Mwananchi (2023) noted that contributions for funerals alone took up 17% of revenues during peak seasons, while research in Kenya by Johnson et al. (2018) discovered that such obligations decreased the speed of inventory restocking by 22% ( $p = 0.03$ ) for periods lasting up to three months. Likewise, research by Udry & Anagol (2021) in Nigeria indicated that wedding expenses postponed inventory purchases by 18-25 days ( $r = -0.41$ ,  $p = 0.02$ ), with enterprises run by women being disproportionately affected.

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## Conclusion

The research provides vital insights into how microfinance is utilized and its effect on the performance of microenterprises in the Bariadi District. Women are predominant in essential sectors such as petty trade, agriculture, and services, mirroring wider gender patterns in Tanzania's informal economy. Loans are allocated and utilized differently across sectors, with productive investments (like inventory and agricultural inputs) displaying strong positive correlations with revenue growth, whereas expenses not directly related to business (including household needs, education, and medical emergencies) significantly impede business sustainability. It is noteworthy that medical emergencies and debt repayments present the most considerable negative impacts, highlighting the susceptibility of microenterprises to financial shocks. These insights align with both regional and global studies, underscoring the dual challenge of fulfilling immediate household requirements while promoting long-term business development in agrarian economies.

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## Recommendations

To boost the efficacy of microfinance initiatives, policymakers and microfinance institutions (MFIs) should implement a dual strategy: Sector-Specific Loan Products—Create customized loan products with adaptable terms suited for agriculture (such as repayment schedules that align with harvest timings) and petty trade (like smaller, more frequent disbursements for inventory). Integrated Financial Solutions—Combine business loans with social safety nets, including health insurance or education savings plans, to reduce the redirection of funds toward emergencies. Furthermore, financial literacy programs should focus on encouraging disciplined loan usage for productive ends, while community-driven initiatives can tackle cultural pressures related to social responsibilities. By addressing both economic and social challenges, these strategies can empower micro entrepreneurs particularly women to achieve lasting growth and resilience.

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