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## **Examining Effects of Agricultural Micro Finance on Household Maize Output for Small Scale Farmers: A Case Study of Chongwe District**

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### **Abstract**

This study examines the effects of agricultural microfinance on maize productivity among smallholder farmers in Chongwe District, Zambia. The main objectives of the study are to assess the impact of agricultural microfinance on household maize output, identify the barriers hindering access to microfinance, and explore factors that can increase access to microfinance and enhance maize productivity. A mixed-method approach was employed, combining both qualitative and quantitative research designs. A survey was conducted among 50 smallholder farmers in Chongwe District, selected through a stratified random sampling method to ensure a representative sample. Data collection involved structured interviews, focus group discussions, and direct observations to gather both numerical and qualitative insights from the respondents. The study also incorporated secondary data from relevant reports on agricultural microfinance and maize production in the region. Data analysis was performed using both descriptive and inferential statistics. Descriptive statistics were used to summarize demographic characteristics and responses, while inferential statistics helped identify significant relationships between microfinance access and maize productivity. The qualitative data were analyzed thematically to highlight key issues such as barriers to microfinance access and recommendations for improving

financial inclusion in the agricultural sector. The results of the study reveal that agricultural microfinance has a positive effect on maize productivity, with 72% of farmers who had access to microfinance reporting higher yields compared to 28% of those who did not have access. Additionally, 65% of the farmers reported an overall improvement in their economic well-being due to increased maize productivity. However, several factors hinder access to microfinance, including high interest rates (42%) of respondents, complex loan application processes (38%), limited financial literacy (30%), and inadequate access to information (25%). The study also identified key factors that could increase access to agricultural microfinance, such as the use of mobile banking services (58% of respondents), agricultural insurance (40%), government support (55%), training (48%), and collaboration with cooperatives (62%).

Based on the findings, the study recommends that policymakers and financial institutions work together to simplify loan application processes, lower interest rates, and provide financial literacy training. Furthermore, the integration of mobile banking services and agricultural insurance schemes could improve access to microfinance, thereby enhancing maize productivity for smallholder farmers in Chongwe District.

**Keywords:** Agricultural Microfinance, Small-scales Farmers, Household Maize Output and Input

### **1. Introduction**

#### **1.1 Background**

Agricultural microfinance has emerged as a vital tool for enhancing the productivity and livelihoods of small-scale farmers in developing countries. Despite its growing importance, there is limited empirical evidence on the impact of agricultural microfinance on household maize output among small-scale farmers. This study seeks to address this knowledge gap by examining the effects of agricultural microfinance on household maize output for small-scale farmers in Chongwe District, Zambia.

However, the empirical assessment of the impact of microfinance on any outcome is very scanty in Zambia, and particularly in relation to maize productivity, none exists to the best knowledge of the authors. This shows that there is still a gap in the literature that must be filled with particular focus on Chongwe district of Zambia. Agriculture and microfinance play a critical role in the entire life of a given economy. Agriculture is the backbone of the economic system of a given country. In addition, in providing food and raw materials it also provides employment opportunities to a very large percentage of the population.

### 1.2 Statement of the problem

Small-scale farmers in Zambia, particularly in Chongwe District, face significant challenges in accessing financial services, which hinders their ability to improve maize productivity and enhance their livelihoods. Despite the growing importance of agricultural microfinance in addressing these challenges, there is limited empirical evidence on the impact of microfinance interventions on household maize output among small-scale farmers in Chongwe District.

Despite the importance of agriculture in supporting the livelihoods of many Zambians, its performance has generally been poor as can be seen from the agricultural growth rate which is considered to be far below the

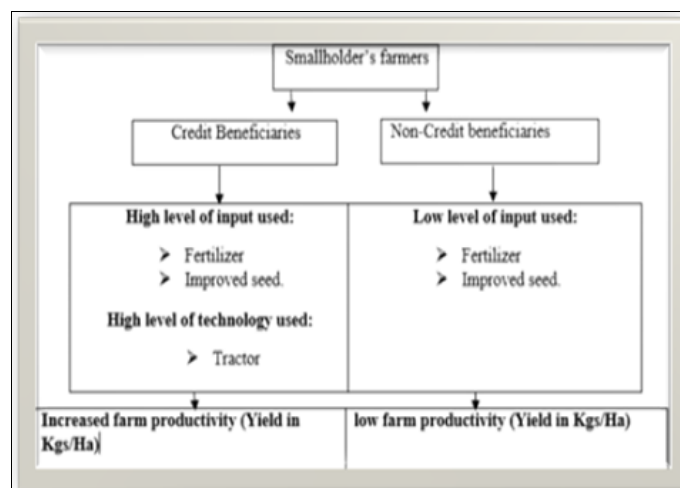
countries potential (Brian *et al*, 2007). Agricultural finance in Zambia is fundamentally dysfunctional with, credit and financial services have been considered as scarce, expensive and heavily skewed towards the larger, corporate sector.

### 1.3 Objectives of the study

The study aims to assess the effects of agricultural microfinance on household maize output for small-scale farmers in Chongwe district. Specifically, the study seeks to examine the impact of agricultural microfinance on maize output, identify factors hindering access to agricultural microfinance, and determine factors that can increase access to microfinance and improve maize productivity for smallholder farmers in the district.

### 1.4 Conceptual framework

This study's conceptual framework is based on the Financial Inclusion Theory, which suggests that access to financial services like microfinance can improve household livelihood outcomes. The framework illustrates how agricultural microfinance can enhance livelihoods by increasing financial access, improving agricultural productivity, and boosting financial resilience. The study examines the impact of microfinance on maize yield, considering factors like agrochemicals, seeds, and farming technology.



Source: Olayide & Heady (2022)

### 1.5 Literature Review

#### Effects of Agricultural Microfinance on Household Maize Output for Small-Scale Farmers

The findings of this study show that agricultural microfinance has a positive and significant effect on maize output for small-scale farmers in Chongwe District. The results suggest that microfinance interventions can improve maize productivity by providing farmers with access to credit, inputs, and technical assistance. Microfinance is distinct from traditional banking in several ways, particularly in its focus on poverty alleviation and financial inclusion. While traditional banks often cater to urban and more affluent clients, microfinance institutions target low-income and marginalized individuals, particularly in rural areas. In the agricultural context, microfinance seeks to empower smallholder farmers by providing access to capital that can be used for agricultural inputs, farm infrastructure, technology adoption, and other productive ventures. This access to finance is crucial for farmers who may otherwise

struggle to secure the necessary resources to increase their crop yield or improve their livelihoods. Agricultural microfinance also facilitates the adoption of modern farming technologies, which can significantly boost maize productivity. In many developing countries, small-scale farmers rely on traditional farming methods that are often less efficient and less productive than modern techniques. However, the adoption of innovative technologies such as improved seed varieties, drip irrigation systems, and mechanized harvesters often requires capital investment, which many smallholders cannot afford without external financial assistance. Through providing farmers with loans to invest in such technologies, agricultural microfinance enables smallholders to increase their productivity and reduce the cost of production. For example, a study by Kinyua (2021) in Kenya found that farmers who received microfinance loans were able to invest in drought-resistant seed varieties and irrigation systems, resulting in higher maize yields and more stable income streams.

The World Bank's Rural Finance and Agricultural Microfinance Report (2019) provides comprehensive insights into the impact of agricultural microfinance on smallholder productivity globally. This report outlines how microfinance initiatives targeted at small-scale farmers, including those engaged in maize production, can significantly improve agricultural productivity. The study emphasizes that access to credit allows farmers to purchase essential inputs such as seeds, fertilizers, and pesticides, which are crucial for increasing maize yields. The report further underscores that in areas where agricultural microfinance programs have been implemented, smallholders have been able to invest in more efficient farming techniques and technologies, leading to enhanced maize productivity. However, the report also highlights the challenges that persist, such as limited loan sizes, high interest rates, and poor infrastructure, which continue to hinder the potential of microfinance to fully realize its impact.

## 2. Factors Hindering Access to Agricultural Microfinance for Household Maize Output Productivity

The key factors include lack of collateral, high interest rates, limited financial literacy, poor credit history, and geographical distance to financial institutions (Owusu, 2022). A global survey conducted by MIX Market (2017) revealed that smallholder farmers in Bangladesh and India struggled with financial literacy, which limited their ability to engage with microfinance institutions. The study pointed out that farmers in these regions were not aware of alternative financing options or the benefits of saving and investing, which could increase maize productivity. Similarly, CGAP (2019) found that in Latin America, farmers' lack of understanding of financial tools contributed to low participation in agricultural microfinance programs. Without proper financial literacy, farmers may not access loans that could improve their agricultural productivity, including maize farming.

According to The Consultative Group to Assist the Poor (CGAP, 2017), microfinance institutions across Africa and Asia often impose high-interest rates ranging from 20% to 40%, which can be burdensome for smallholder farmers, particularly in developing countries where agricultural productivity is often affected by external factors like climate change and fluctuating market prices. In Mexico, a study by Inter-American Development Bank (IDB, 2015) found that high-interest rates on microfinance loans contributed to high repayment burdens, pushing farmers further into debt and limiting their ability to access further credit. Similarly, Rural Finance and Development (2016) found that in Zambia, the interest rates charged by microfinance institutions for agricultural loans were often too high for smallholder farmers, especially those growing maize, which is a staple crop subject to volatile market prices and weather conditions. The high interest rates on loans, when coupled with the unpredictability of maize yields, create a situation where farmers are unable to repay their loans, further reducing their access to finance.

In India, a report from India's National Bank for Agriculture and Rural Development (NABARD, 2019) found that the lack of coherent policies around microfinance, combined with inadequate government support, resulted in low loan disbursement to smallholder farmers. This issue was

compounded by the absence of clear guidelines on interest rates and repayment terms, which created confusion among farmers. Similarly, Rural Finance and Development (2016) found that in Zambia, the microfinance sector lacked effective regulation, leading to exploitation of smallholder farmers through high-interest rates and unclear loan terms. The regulatory framework in Zambia, although improved in recent years, still faces challenges in ensuring that smallholder farmers, especially maize producers, have equitable access to financial services. A study by The Zambia Institute for Policy Analysis and Research (ZIPAR, 2020) found that a lack of understanding of loan terms, repayment schedules, and the benefits of credit meant that farmers were not utilizing available microfinance options effectively. This study also emphasized the importance of financial education in enabling farmers to access and benefit from microfinance services.

## Factors That Can Increase Access to Agricultural Microfinance for Smallholder Farmers in Chongwe District

Access to agricultural microfinance is crucial for smallholder farmers as it helps them secure the resources needed for improving productivity and sustaining livelihoods. In regions like Chongwe District, where small-scale farming is the backbone of the local economy, increasing access to microfinance can significantly enhance agricultural output, particularly for maize production. However, despite the growing recognition of the importance of microfinance, many smallholder farmers still struggle to access these services. Several factors, if properly addressed, can enhance access to agricultural microfinance and improve household maize output in Chongwe.

Mobile banking has emerged as a transformative tool in expanding financial inclusion, especially for rural populations that have limited access to traditional banking infrastructure. Studies have shown that mobile banking platforms offer a cost-effective and efficient means of reaching underserved populations (Demirgüç-Kunt *et al.*, 2017). In the context of agricultural microfinance, mobile banking can facilitate quicker and easier access to financial services, including loan applications, savings accounts, and mobile money transfers, even in remote areas like Chongwe District. Research conducted in various African countries, including Kenya and Tanzania, demonstrates the positive impact of mobile banking on increasing financial inclusion among rural farmers (Brewin *et al.*, 2014). By enabling smallholder farmers to apply for loans or receive payments through their mobile phones, mobile banking reduces the transaction costs and physical barriers associated with traditional banking, thus increasing access to agricultural microfinance (Aker & Mbiti, 2010). Another important factor in increasing access to agricultural microfinance is the provision of training and capacity-building programs for smallholder farmers. Many smallholder farmers in rural areas lack the financial literacy necessary to navigate the complexities of microfinance services (Beaman *et al.*, 2014). By offering training programs that focus on financial management, loan application processes, and the efficient use of credit, microfinance institutions can help bridge the knowledge gap and make farmers more comfortable with using financial service.

### 3. Methodology

#### Research Design

This study employs a descriptive research design to investigate the factors influencing agricultural microfinance access and its impact on maize output among smallholder farmers in Chongwe District. The descriptive design allows for the collection of detailed and accurate data, providing a clear picture of the current situation regarding microfinance access. The study will utilize both qualitative and quantitative methods to gather a comprehensive understanding of the issue, identifying patterns, attitudes, and opinions among the target population of small-scale maize farmers.

#### Sampling Design

A stratified random sampling technique will be used to select participants, ensuring various subgroups, particularly male and female farmers, are adequately represented. The stratification will be based on gender, given the unique challenges women face in accessing microfinance. The sample will be divided into four strata: Male and female farmers who have accessed microfinance, and male and female farmers who have not. This approach will allow the study to assess gender differences in access to agricultural microfinance, its impact on maize production, and highlight specific barriers faced by women.

#### Target Population

The target population for this study comprises smallholder maize farmers in Chongwe District, a primarily rural area where subsistence and small-scale commercial agriculture are prevalent. The study focuses on this population because maize is a staple crop in Zambia and the district is representative of the challenges smallholder farmers face in accessing agricultural microfinance. The target group includes both male and female farmers, with a particular emphasis on understanding gender-specific barriers to microfinance access, and prioritizes those who have accessed or attempted to access agricultural microfinance, providing valuable firsthand experience.

#### Triangulation

To enhance the credibility and validity of the study findings, triangulation will be used, combining multiple data sources and methods to cross-check and verify results. This will involve combining quantitative data from structured questionnaires with qualitative insights from open-ended questions. Additionally, the study's findings will be compared with existing literature on agricultural microfinance in Zambia and similar contexts, ensuring that the results are robust, consistent, and reliable.

### 4. Findings/Results

#### 4.1 Presentations of research Findings

**Table 1:** Gender distribution of the respondents

Female	Male
42%	58%

Table 1 shows, gender distribution of the respondents out of the total sample size of 50, 21 are female (42%), and 29 are male (58%). This indicates that there is a higher representation of male small-scale farmers compared to

female farmers in the study sample.

**Table 2:** Age of the respondents

	Classification	Frequency	Percentage (%)
Age Group	20-29 years	13	26.00%
	30-39 years	17	34.00%
	40-49 years	11	22.00%
	50-59 years	7	14.00%
	60+ years	2	4.00%
	<b>Total</b>	<b>50</b>	<b>100%</b>

Table 2. show's that the majority of respondents fall within the 30-39-year age group (34%), followed closely by the 20-29-year group (26%). A smaller proportion of respondents are in the older age groups, with only 4% of the sample aged 60 and above. This age distribution suggests that the farmers in the study are relatively young to middle-aged, which may have implications for their ability to engage with agricultural microfinance services and adopt modern farming techniques.

**Table 3:** House size of the respondents

	Classification	Frequency	Percentage (%)
Household size	1- 3	6	13.4%
	4-6	19	42.3%
	7-9	11	24.5%
	10-12	5	11.2%
	13+	4	9%
	<b>Total</b>	<b>50</b>	<b>100%</b>

Fig 3, data on household size reveals an average of approximately 7 members per household, with a standard deviation of 3.79, indicating some variation in household sizes. The smallest household consists of 1 member, while the largest has 20 members. This range highlights the diversity in household sizes among the respondents, which may influence the economic dynamics and resource needs, including access to agricultural microfinance for productivity.

**Table 4:** Land ownership of respondents

No	Yes
75.51%	24.49%

A majority of respondents (75.51%) own the land they farm on, while 24.49% do not. Land ownership is likely to positively influence access to agricultural microfinance, as it provides collateral for loan approval. In contrast, farmers without land ownership (24.49%) may face additional barriers to accessing finance due to the lack of assets to secure loans, highlighting the importance of land tenure in financial inclusion for smallholder farmers.

**Table 5:** Years of experience in farming

Years of experience	Frequency	Percentage
1-5 years	13	27%
6-10 years	15	31%
11-30 years	9	19%
21-30 years	1	2%
31-40 years	2	4%
41-50 years	8	17%
Total	48	100%

Table 5 highlights that the majority of the respondents (58.33%) have between 1 and 10 years of experience in maize farming, while a smaller portion (16.67%) has more than 40 years of experience, reflecting a diverse range of farming expertise.

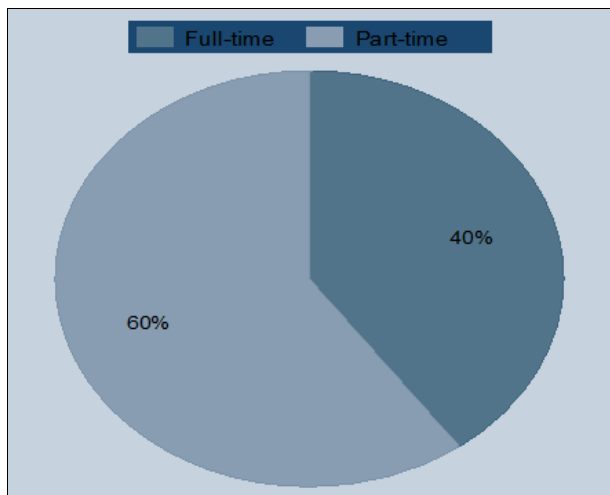


Fig 1: Part time or full-time farming

Fig 1 indicates that 60% of the respondents engage in farming part-time, while 40% are full-time farmers. This suggests that a majority of the farmers may have additional sources of income or occupations alongside farming. The prevalence of part-time farming could impact productivity and access to microfinance, as part-time farmers may not fully dedicate their time and resources to maximizing agricultural output. In contrast, full-time farmers, representing 40%, may have greater commitment and possibly higher productivity, positioning them better for accessing agricultural microfinance and improving household maize output.

Table 6: Main source of income respondents

Source of Income	Percentage
Business	16%
Farming	55%
Farming and Business	16%
Government salary	2%
Government support	2%
Non-Farming Activities	6%
Remittances	2%

Table 6. on the main sources of household income show that the majority of households, 55.10%, rely on farming as their primary income source, indicating the central role of agriculture in sustaining livelihoods in the community. A significant portion, 16.33%, combines both farming and business, reflecting the diversification of income streams among smallholder farmers. Meanwhile, 16.33% solely depend on business, highlighting non-agricultural economic activities. Only a small percentage of households (2.04% each) rely on government salary, government support, and remittances, while 6.12% depend on non-farming activities. This diverse range of income sources underscores the economic complexity within rural households.

**Effects of agriculture micro finances on household maize output for small scales farmers.**

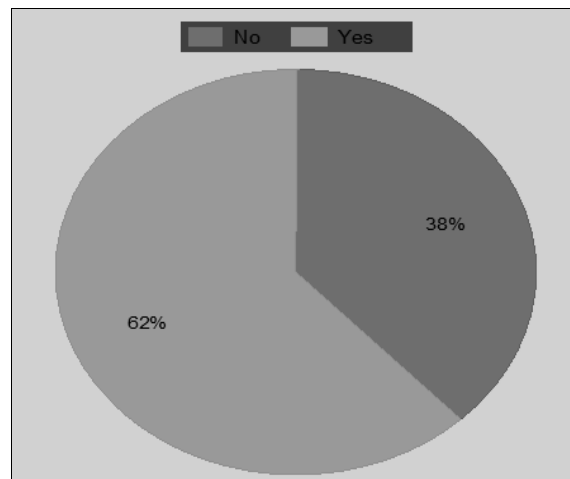


Fig 2: Access to agricultural microfinance

Fig 2 shows that 62% of respondents have accessed agricultural microfinance, indicating a relatively high uptake of financial support among smallholder farmers. However, 38% have not accessed microfinance, suggesting that a significant portion of farmers may face barriers or lack awareness about available financial services.

Table 7: Microfinance Amount (ZMW)

Microfinance Amount (ZMW)	Freq.	Percent
1-5,000	9	29.03%
5,000-10,000	10	32.26%
10,00001-20,000	9	29.03%
20,001-50,000	2	6.45%
Above 50,000	1	3.23%
Total	31	100%

Table 7 reveals that the majority of respondents (61.29%) received microfinance loans of ZMW 1,000 to ZMW 10,000, indicating that most smallholder farmers tend to access relatively modest loan amounts to support their agricultural activities. A smaller percentage (6.45%) received amounts above ZMW 20,000, with one respondent receiving as much as ZMW 350,000.

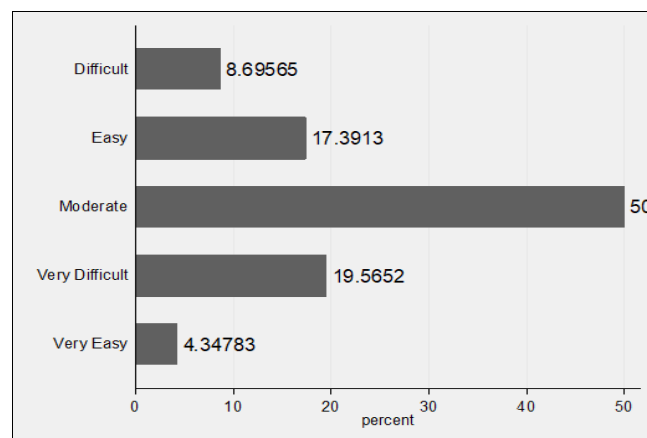
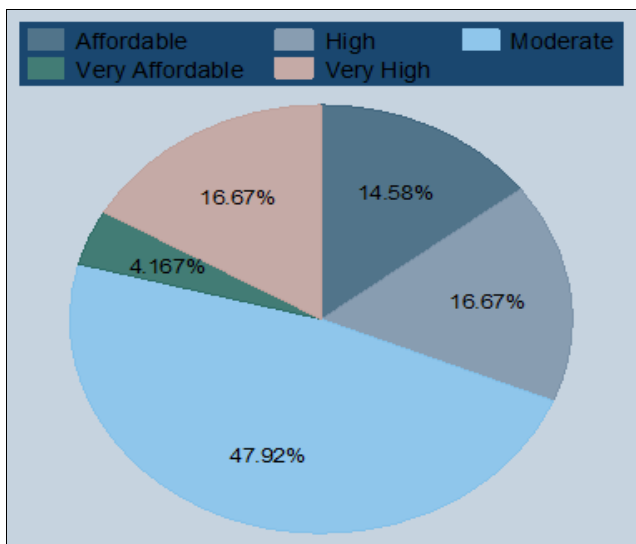


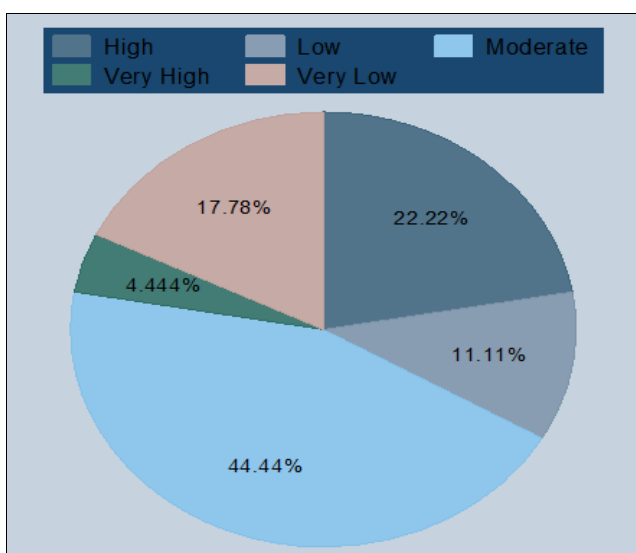
Fig 3: Ease of repayment terms of the microfinance loan you received

Fig 3 shows data on the ease of repayment terms shows that the majority of respondents (50%) rated the repayment terms as "Moderate." A smaller proportion found the terms either "Easy" (17.39%) or "Very Easy" (4.35%), together making up 21.74%. On the other hand, a notable number of respondents experienced difficulty, with 19.57% rating the terms as "Very Difficult" and 8.7% as "Difficult."



**Fig 4:** Affordability of interest rates on agricultural microfinance loans

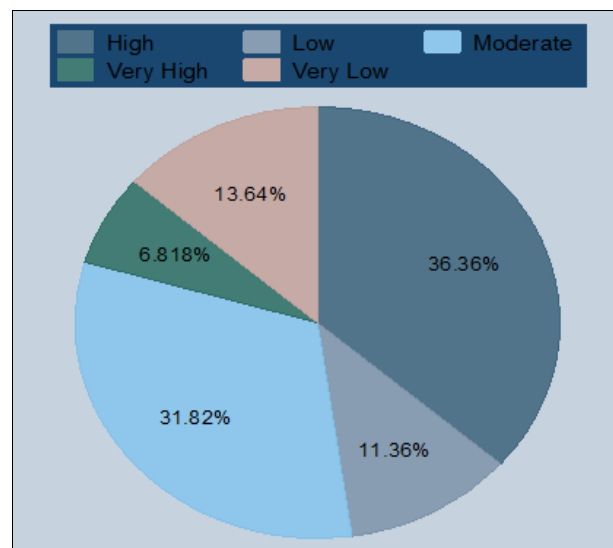
Fig 4 shows data on the affordability of interest rates for agricultural microfinance loans reveals a mixed perception among respondents. A significant portion, 47.92%, rated the interest rates as "Moderate," while 16.67% found them to be either "High" or "Very High," indicating concerns about affordability. On the other hand, 14.58% viewed the rates as "Affordable" and 4.17% as "Very Affordable," suggesting that some farmers still find the loans accessible.



**Fig 5:** To what extent did Micro-finance loan affected the Quality of Maize Output

According to Fig 5, the majority (44.44%) of respondents reported moderate-quality maize output, indicating relatively consistent production that may not always meet high standards. A significant portion (22.22%) achieved high-quality crops, while 17.78% faced challenges with very

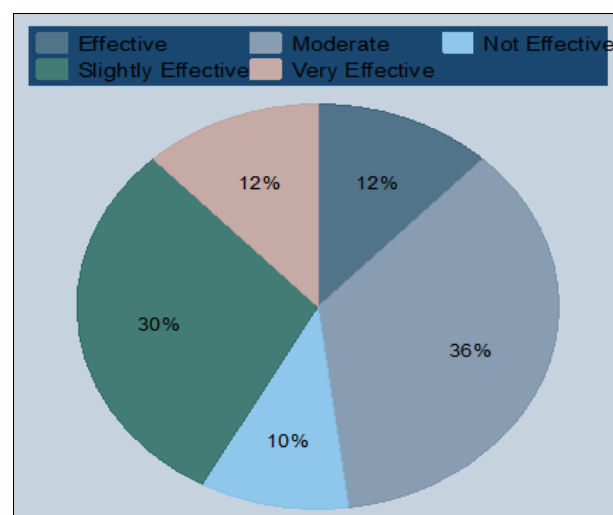
low-quality maize, possibly due to poor farming practices or inadequate resources. Only 4.44% reported very high-quality maize, indicating exceptional quality is less common among the respondents.



**Fig 6:** To what extent did Micro-finance loan affected the Manage farming risks

Fig 6 reveals mixed results on the impact of microfinance loans on managing farming risks among respondents. While 36.36% reported a high impact, helping them mitigate challenges like drought and pests, 31.82% felt the impact was moderate, and 13.64% reported a very low impact. A small group (6.82%) reported very high effectiveness, and 11.36% reported a low impact, indicating that while microfinance loans can help manage risks, their effectiveness varies widely across different farmers.

**Factors that hinder access to agricultural microfinance for household maize output productivity**



**Fig 7:** How effective are microfinance providers in reaching small-scale farmers in your area

Fig 7 shows that respondents had mixed views on the effectiveness of microfinance providers in reaching farmers. While 36% felt they were moderately effective, 30% thought they were only slightly effective, indicating room for improvement. However, 24% of respondents found the

services to be effective or very effective, highlighting some positive feedback. Nevertheless, 10% felt the providers were not effective at all, pointing to challenges in accessibility and impact.

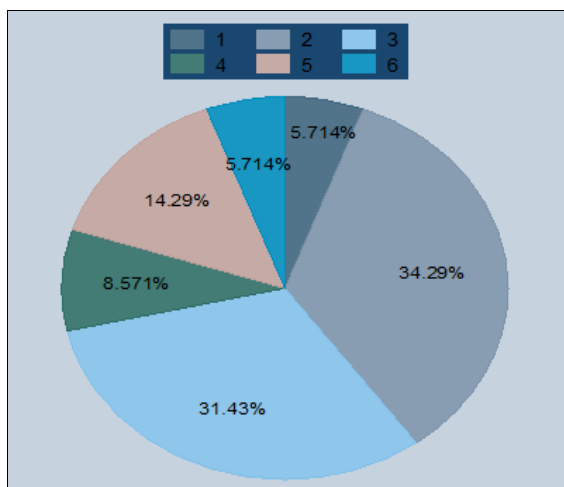


Fig 8: Times farmers applied for microfinance and been denied

Fig 8 shows that a significant proportion of respondents have faced multiple rejections when applying for microfinance. Most commonly, 34.29% of respondents had been denied twice, while 31.43% had been denied three times. Smaller percentages reported being denied four times (8.57%), five times (14.29%), and six times (5.71%). Only 5.71% of respondents had been denied once.

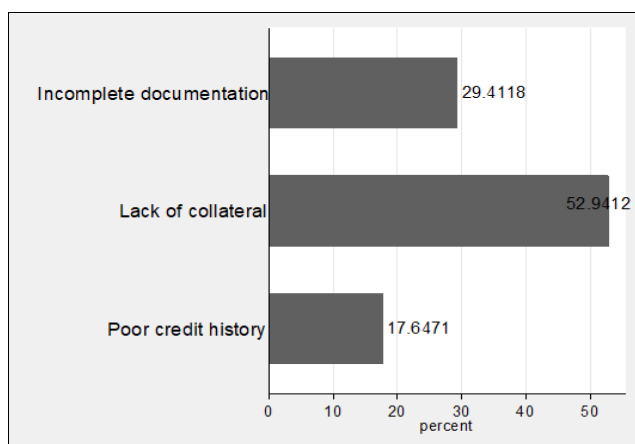


Fig 9: Reasons for the denial microfinance application

Fig 9 reveals that the primary reason for denied microfinance applications is a lack of collateral (52.94%), followed by incomplete documentation (29.41%) and poor credit history (17.65%). Additionally, the study found that the microfinance application process timeline varies, with 35.14% of respondents reporting a duration of 1-3 days, 32.43% experiencing a 4-7 day wait, and 16.22% facing longer delays of 28-60 days, highlighting that while most applications are processed quickly, some applicants face significant delays.

**Extent to which following barriers prevent farmers from accessing microfinance: [Lack of collateral, Lack of information on microfinance programs, High interest rates, Complex application process, Limited financial literacy, Poor credit history, and Regulatory frameworks]**

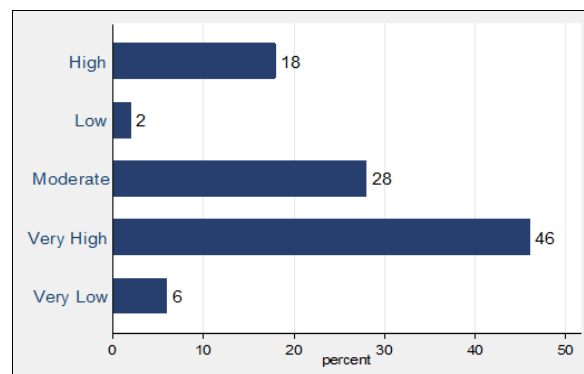


Fig 10: Lack of collateral

Fig 10 shows that a lack of collateral is a significant barrier to obtaining microfinance, with 46% of respondents rating it as a "Very High" barrier and 28% considering it a "Moderate" barrier. This highlights the major obstacle that collateral requirements pose for many individuals. Overall, 74% of respondents viewed the lack of collateral as at least a moderate barrier.

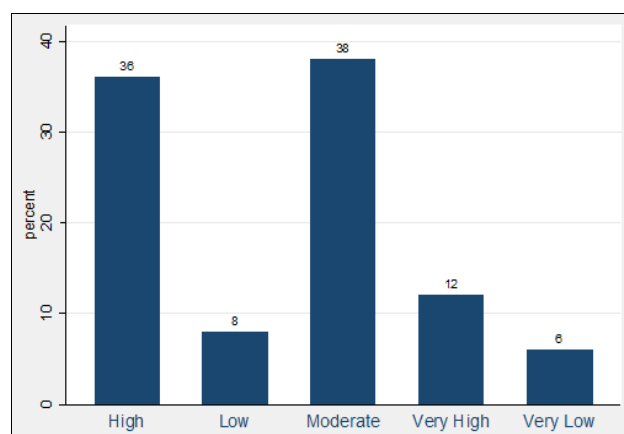


Fig 11: Lack of information on microfinance programs

Fig 11 reveals that a lack of information on microfinance programs is a substantial barrier to access. The majority of respondents (38%) considered it a moderate barrier, while 36% viewed it as a high barrier, highlighting its significant impact. Overall, 86% of respondents rated the lack of information as at least a moderate barrier, emphasizing the need for improved awareness and education on microfinance programs.

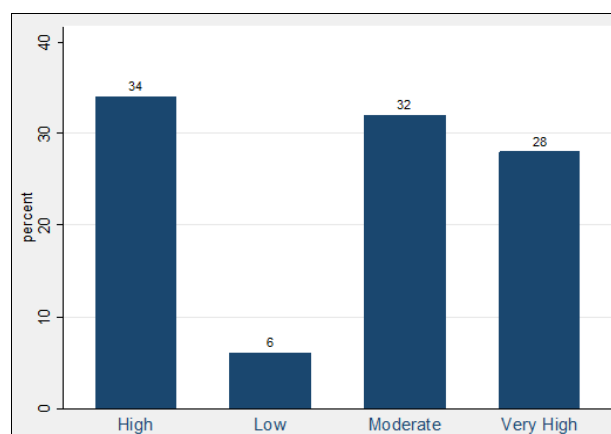


Fig 12: High interest rates of loans

Fig 12 reveals that a significant majority of respondents (62%) perceive microfinance loan interest rates as high or very high, with 34% rating them as "High" and 28% as "Very High". This suggests that many individuals feel the financial burden of the loans is considerable. In contrast, 32% viewed the rates as "Moderate", and only 6% found them to be "Low", highlighting concerns about the affordability of microfinance loans.

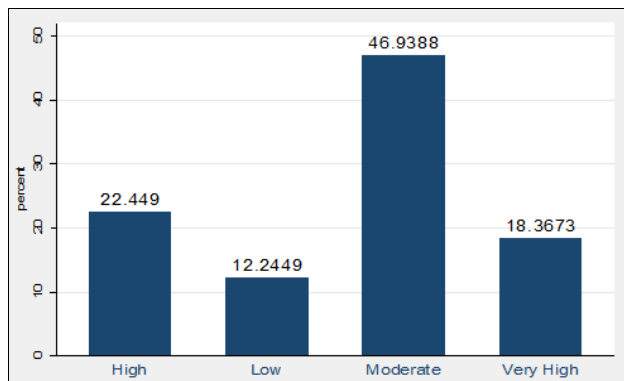


Fig 13: Complex application process

Fig 13 shows that 46.94% of respondents find the microfinance application process "Moderate" in difficulty. However, 40.82% (22.45% "High" + 18.37% "Very High") find it challenging, while only 12.24% consider it "Low" in difficulty. Simplifying the process could improve accessibility.

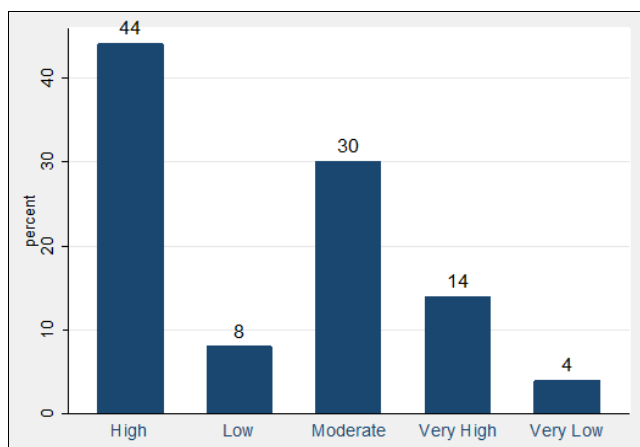


Fig 14: Limited financial literacy

Fig 14 reveals that limited financial literacy is a significant barrier to accessing microfinance, with 58% of respondents rating it as "High" or "Very High" (44% + 14%). This highlights a major challenge for nearly half of the respondents, potentially limiting their ability to access financial services. Only 12% consider it a minimal concern, emphasizing the need for increased financial education.

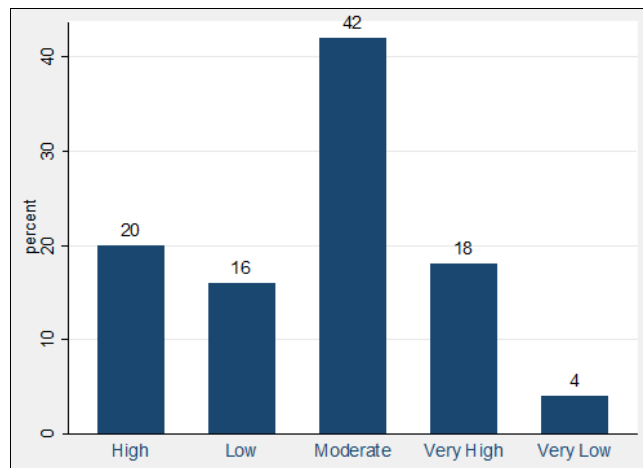


Fig 15: Poor credit history

Fig 15 shows that 42% of respondents view poor credit history as a "Moderate" barrier to accessing microfinance, while 38% (20% "High" + 18% "Very High") consider it a significant or very high barrier, highlighting its substantial impact. Only 20% (16% "Low" + 4% "Very Low") see it as a minimal concern.

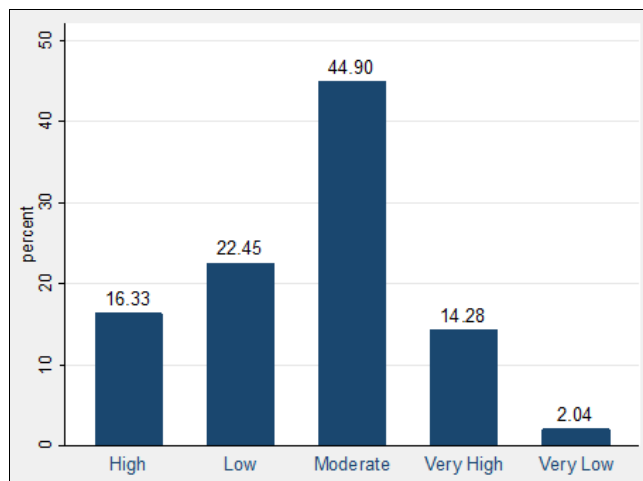
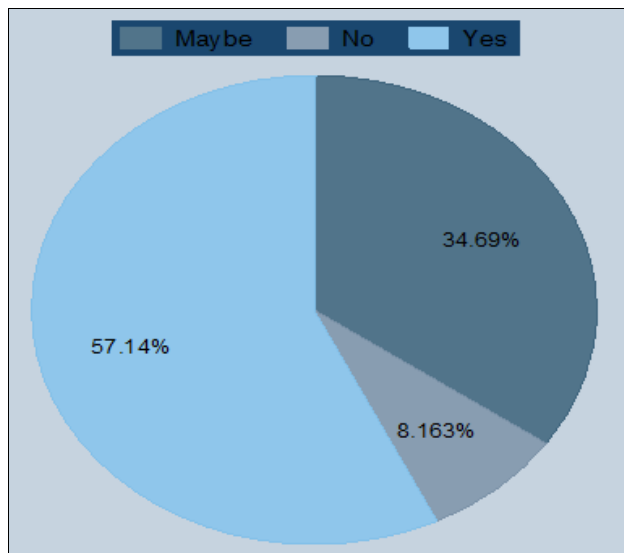


Fig 17: Regulatory frameworks

Fig 17 shows that 44.90% of respondents view regulatory frameworks as a "Moderate" barrier to accessing microfinance. However, 30.62% (16.33% "High" + 14.29% "Very High") consider it a significant or very high barrier, while 24.49% (22.45% "Low" + 2.04% "Very Low") see it as a minimal concern.

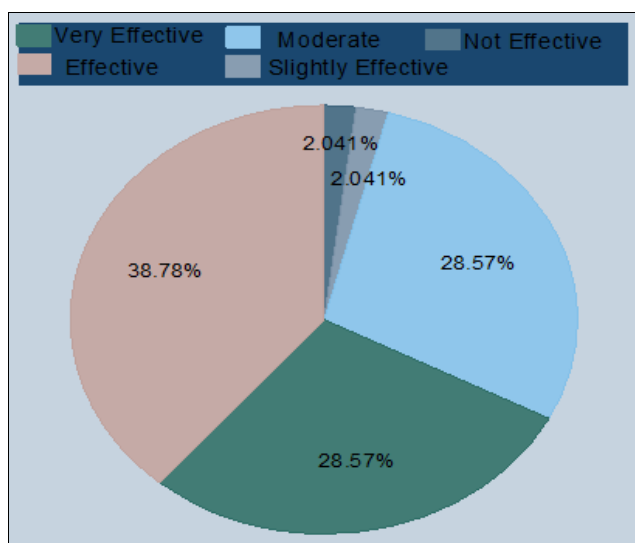
**Factors that can increase access to microfinance on maize productivity for smallholder farmers of Chongwe district**





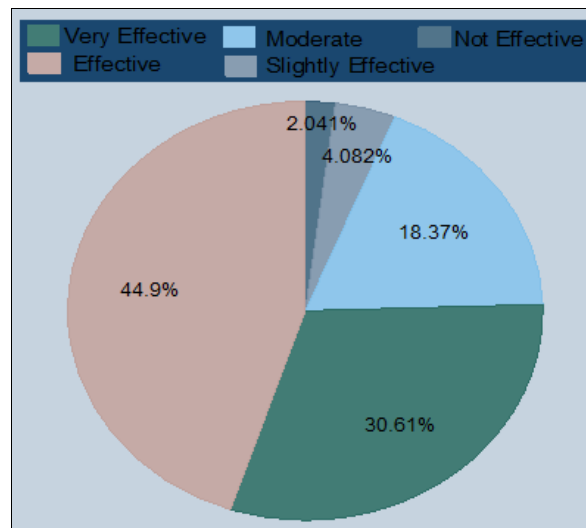
**Fig 18:** Are you interested in accessing agricultural microfinance in the future

Fig 18 shows that 57.14% of respondents are interested in accessing agricultural microfinance in the future, indicating strong demand. However, 34.69% are uncertain, and 8.16% are not interested, suggesting that concerns or past experiences may influence their decisions.



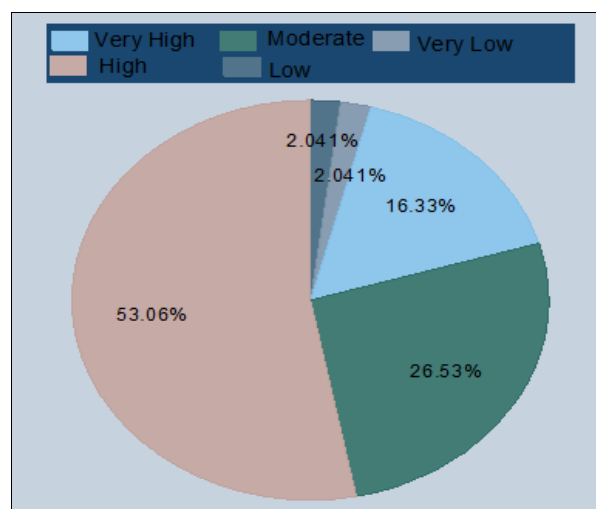
**Fig 19:** Effectiveness of lower interest rates in improving access to microfinance

Fig 19 shows that 67.35% of respondents believe lower interest rates would be "Effective" (38.78%) or "Very Effective" (28.57%) in improving access to microfinance. This highlights high interest rates as a significant barrier, and reducing them could greatly increase participation, addressing a key concern for most small-scale farmers.



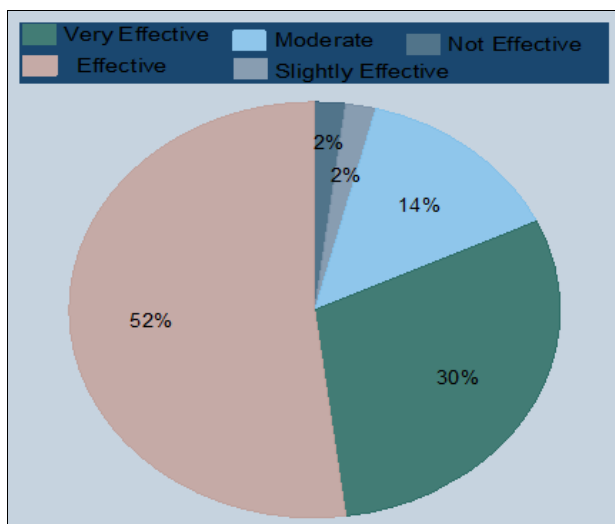
**Fig 20:** Effectiveness of a simplified loan application process in improving access to microfinance

In Fig 20, the majority of respondents (75.51%) believe that a simplified loan application process would be effective or very effective in improving access to microfinance. Specifically, 44.90% found it "Effective," and 30.61% deemed it "Very Effective." This highlights that simplifying the application process is seen as a critical factor in increasing microfinance access. A small minority (6.12%) felt it would have little to no impact.



**Fig 21:** How better access to information about microfinance affect ability to access it

Fig 21 shows that 69.39% of respondents believe better access to microfinance information would have a "High" (53.06%) or "Very High" (16.33%) impact on their ability to access it, highlighting the crucial role of information in accessing financial services.



**Fig 22:** Effectiveness would training on microfinance and its benefits be in increasing your access to microfinance

Fig 22 shows that 69.39% of respondents believe better access to microfinance information would have a "High" (53.06%) or "Very High" (16.33%) impact on their ability to access it, highlighting the crucial role of information in accessing financial services.

#### 4.2 Discussion

The background characteristics of the respondents provide valuable insights into the demographic, economic, and social factors influencing their access to agricultural microfinance. The study reveals a higher representation of male small-scale farmers (58%) compared to female farmers (42%). The majority of respondents are relatively young to middle-aged, with 34% falling within the 30-39-year age group. A significant proportion (50%) have attained tertiary education, which may enhance their ability to understand and engage with agricultural microfinance opportunities.

The study also examines the household characteristics of the respondents. The average household size is approximately 7 members, with a range of 1 to 20 members. Land ownership is a key factor influencing access to agricultural microfinance, with 75.51% of respondents owning the land they farm on. The majority of respondents (60%) engage in farming part-time, while 40% are full-time farmers. The respondents possess diverse levels of expertise in maize farming, with 58.33% having between 1 and 10 years of experience.

The main sources of income for households are also explored. The majority of respondents (55.10%) rely on farming as their primary income source, while a significant portion (16.33%) combine farming with business activities. This diversification of income streams indicates that farmers may be balancing the risks of agriculture with other economic activities, affecting their financial stability and ability to access agricultural microfinance. The range of income sources illustrates the economic complexity within rural households and the various factors influencing financial access.

#### The effects of agriculture micro finances on household maize output for small scales farmers

A significant majority (62%) of smallholder farmers have accessed agricultural microfinance, with most receiving loans between ZMW 1,000 to ZMW 10,000. This suggests

that microfinance services are available to a large portion of the smallholder farming community. However, 38% have not accessed microfinance, potentially due to lack of awareness, limited access, or inadequate collateral.

The study highlights mixed perceptions about repayment terms and interest rates, with some farmers finding them difficult or very difficult. Microfinance has had a positive impact on maize production, with 54.84% of respondents reporting increased output. The increase in maize output suggests that microfinance has enabled farmers to invest in inputs like seeds, fertilizers, and labor, which are crucial for boosting productivity.

However, the benefits of microfinance are unevenly distributed, with some farmers reporting high income and others very low income. The study also notes that microfinance has had limited impact on maize quality and risk management, highlighting the need for additional support and comprehensive risk management strategies. This includes training on best agricultural practices, access to quality inputs, and market access for higher-quality products.

#### Factors Hindering Access to Agricultural Microfinance for Household Maize Output Productivity

Several factors hinder access to agricultural microfinance for smallholder farmers. The majority of respondents (66%) found the outreach of microfinance providers to be moderately effective or below, highlighting the need for improved awareness campaigns and outreach. Additionally, a large number of farmers face repeated denials when applying for microfinance, with 34.29% of respondents being denied twice and 31.43% being denied three times.

The primary reason for the denial of microfinance applications is the lack of collateral, reported by 52.94% of respondents. Other significant barriers include incomplete documentation, poor credit history, and high interest rates. The complexity of the application process and limited financial literacy are also major obstacles for farmers. These factors underscore the need for microfinance institutions to revisit their requirements and provide more flexible and farmer-friendly services.

The study identifies several key barriers to accessing microfinance, including lack of collateral, lack of information on microfinance programs, high interest rates, complex application processes, limited financial literacy, poor credit history, and regulatory frameworks. Addressing these barriers is crucial to increasing access to microfinance and promoting agricultural development in rural areas. By simplifying the application process, providing financial education, and offering more flexible loan terms, microfinance institutions can better serve the needs of smallholder farmers.

#### The factors that can increase access to microfinance on maize productivity for smallholder farmers of Chongwe district

The study found that smallholder farmers in Chongwe District are interested in accessing agricultural microfinance, with 57.14% of respondents willing to pursue microfinance opportunities. However, 34.69% were uncertain, citing concerns about loan terms, risks, and past experiences. To address these concerns, the study identifies several factors that can increase access to microfinance, including lower interest rates, simplified loan application processes, and

better access to information.

Reducing the cost of borrowing is a key factor, with 67.35% of respondents indicating that lower interest rates would improve access to microfinance. Simplifying the loan application process is also crucial, as 75.51% of respondents highlighted its importance. Additionally, providing better access to information about microfinance opportunities can help raise awareness and empower farmers to make informed decisions.

The study also emphasizes the importance of training and capacity-building programs, agricultural insurance, collaborations with cooperatives, and government support in improving access to microfinance. Mobile banking services can also play a role in increasing access to microfinance, particularly in areas with limited access to traditional banking infrastructure. By addressing these factors, microfinance institutions and stakeholders can increase financial inclusion and promote agricultural development in rural areas.

#### 4.3 Conclusion

The study examines the effects of agricultural microfinance on household maize output for small-scale farmers. The findings show that a significant majority (62%) of respondents have accessed agricultural microfinance, with most receiving loans ranging from ZMW 1,000 to ZMW 10,000. However, the study also highlights several barriers to accessing microfinance, including lack of collateral, high interest rates, complex application processes, limited financial literacy, and poor credit history.

To increase access to microfinance, the study identifies several key factors, including lower interest rates, simplified loan application processes, better access to information, training and capacity-building programs, agricultural insurance, collaborations with cooperatives, government support, and mobile banking services. A significant portion of respondents (67.35%) believe that lower interest rates would have a high or very high impact on improving access to microfinance. Additionally, 75.51% of respondents highlight the importance of a simplified loan application process.

The study's findings suggest that addressing these barriers and factors can improve access to microfinance and, in turn, enhance maize productivity and household income for small-scale farmers. By providing targeted interventions and support, microfinance institutions, governments, and other stakeholders can help increase financial inclusion and promote agricultural development in rural areas.

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